Rain Makers Not In Demand—A&M Needs 'Stoppers'

Rain, like a cattle stampede, is easier to start than stop, agree Texas A&M meteorologists engaged in weather modification research.

The question of drying up the clouds was put to A&M Geosciences Dean Horace R. Byers and Dr. Vance E. Moyer, head of the university's Meteorology Department, in view of the prolonged June drenching over much of Texas.

Dean Byers, chairman of the Texas Water Development Board's Weather Modification Advisory Committee, noted that so far scientists have had limited success in making it rain and certainly take no credit — or blame — for recent downpours.

He pointed out, however, that the problem of inducing rain involves relatively small quantities of moisture and is therefore much more feasible than stopping it.

Few people realize how much water is included in a heavy or extended rain, Dr. Moyer observed.

He did some hasty figuring and concluded that almost two million tons of water fell in the Burton Creek Water Shed — a seven-square-mile area in Bryan — during a 12-hour period in which gauges showed slightly less than four inches of rain.

"That's enough water for a good-size lake," Moyer quipped.

"When you have excessive rains over a period of time, it represents the storm's energy, which can be the equivalent of some of the largest thermal nuclear bombs," Byers added.

He said the main difference between the two types of energy is that the storm's energy is expended during a long period of time and over a large area.

The dean emphasized that very little research has been conducted in the field of rain stoppage, although it definitely is an aspect of weather modification.

"For practical reasons, work in weather modification has been concentrated in starting, rather than stopping rain," Dr. Byers said.

Moyer said the problem in prohibiting rain would be development of a technique to get the air to retain its moisture — in short, evaporate it.

"The only way I can think of doing this is to heat the air," he explained, adding that this would be a monumental task.

Dean Byers agreed, pointing out the air would have to be heated from the top of the cloud to avoid stirring up more boiling energy.

The problem is further compounded by the fact the average lifetime of a cloud is approximately one hour, at which time the cloud evaporates by itself.

"Actually, while one side of a could is forming, the other side is dissipating," Dr. Moyer remarked.

"People think they see a cloud that stays overhead all day," he continued, "but what really happens is that another cloud comes in to take the original one's place."

Moyer said some success has been attained by non-meteorologists in dissipating fog at airports, using a chemical spray solution.

While fog is similar to rain, he pointed out, rain droplets are millions of times larger than fog droplets and dissipation would therefore require much more heat.

The Battalion

NEWSPAPER CONTESTS — TEXAS PRESS ASSOCIATION 1968 — PRIZE WINNER

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Battalion Wins 1st In TPA Competition

The Battalion has been announced winner of first and second place awards at the Texas Press Association's annual summer convention in San Antonio.

The first place award was presented for outstanding pictorial reporting of the Thanksgiving Day football game activities in the news photography competition.

An editorial repudiating the stand of state college and university student body presidents and campus editors against the Vietnam war received a second-place certificate of achievement in the editorial competition.

This year the Battalion competed in Division I, for newspapers in cities of 15,000 to 150,000 population.

In 1965 the Battalion was in Division II, for daily newspapers published in towns of less than 15,000 population. The student newspaper won the General Excellence Award for amassing the most points in the division.

The paper won first in editorial and appearance and won a second place certificate for news writing in the 1965 contest.

Staff of the prize-winning 1968 publication included Charles Rowton of Killeen, editor; John Fuller of San Angelo, managing editor; John McCarroll of Odessa, news editor; Bob Solovey of Silver Springs, Md., editorial columnist, and Mike Wright of Victoria, photographer.

AEC Issues Permit For Nuclear Change

The Atomic Energy Commission is in the process of issuing a construction license to Texas A&M for conversion of the Nuclear Science Center reactor to Triga type fuel elements, according to Congressman Olin E. Teague.

A reactor official said the Center has received the AEC letter, dated June 14, which will be followed by a 15-day waiting period before actual reactor modifications to accept the 26 uranium-zirconium rods begins.

Donald G. Anderson, operations manager, said the reactor will be shut down July 1, when the construction permit becomes effective.

Center Director Dr. John D. Randall has indicated the facility will be inoperative only about a month. Following satisfactory modification, installation and testing, the AEC issues an operating license.

The new fuel elements will raise reactor power tenfold, to one megawatt. Special controls presently being constructed by NSC technicians will enable steady-state or "pulse" type operation, the latter simulating the equivalent of a burst of radiation from a nuclear weapon detonation.

Anderson indicated modifications to the control console, reactor bridge and possible experiment facility additions at the bottom of the stall will be completed before the fuel changeover is made.

Old MTR fuel plates will be removed from the reactor and stored in the "swimming pool" before Triga elements are inserted. Anderson said blade-type control rods will also be replaced, and the old rods will be stored in the pool for radioactive decay before disposal.

Randall pointed out the reactor down-time will enable experiments to update their research programs for the new power capability.

Fountain Room Open During 4th

During the July 4th holidays, the Fountain Room in the Memorial Student Center will remain open, according to Col. Fred W. Dollar, food services director.

On July 4, 5 and 6 the Fountain Room will be open from 8 a.m. until 7 p.m.

Formal business hours will resume on Sunday, Dollar said.

New Dormitories Planned To House 1000 Students

'NO LINES'

Freshmen planning to enter A&M in the fall have begun summer conferences and a new registration method which makes them ask: "Is that all?" The remainder of the students may go to the "pre-registration" method in the spring of 1969. See story on page 4.

Other Board Action Sets Sea Research

Texas A&M has been given the go-ahead by its board of directors to develop preliminary design for a new dormitory complex which would initially house 1,000 students.

A&M President Earl Rudder said the four-story complex for single students would include a new dining facility, with a total cost of about $6 million.

The new facilities could be ready for occupancy as early as 1970.

Rudder said the complex will be designed for possible expansion at a later date to accommodate approximately 2,000 students.

The board of directors appropriated $60,000 for preliminary design.

A&M currently has 32 dormitories with a capicity for 6,458 students. The newest dorms were completed in 1965.

Rudder said new facilities for single students will be needed to meet the university's growing over-all enrollment, which has increased approximately 1,000 annually in recent years.

He also emphasized there is still an acute need for additional off-campus housing for married students and faculty-staff personnel.

The proposal for the new campus facilities, Rudder noted, was based on the recommendation of a dormitory committee which has been studying A&M housing needs for more than a year.

Establishment of a Center for Dredging Studies at Texas A&M was also approved by the board.

A&M Engineering Dean Fred J. Benson told board members the center will be operated by the Civil Engineering Department and include teaching, research, information dissemination and operational activities.

He said the proximity of A&M to the Gulf of Mexico and the capabilities of its staff make it appropriate that the university provide leadership in this field.

The dean noted that new and improved methods of dredging must be developed in the near future, in view of renewed interest in greater utilization and exploitation of marine resources and increased activities in estuaries along the shore and offshore.

Benson also pointed out both state and federal governments are making a concerted effort to develop new interests and facilities to stimulate research and development of marine resources.

Earlier this month, Texas A&M was awarded a $475,000 grant by the National Science Foundation to develop a Gulf Coast marine resources program.

Construction contracts and appropriations authorized by the board totaled $1,478,889. Texas A&M contracts went to Vance & Thurmond Contractors, $232,650; R. B. Butler, Inc., $192,224, and W. E. Kutzschbach Co. $191,091, all of Bryan. Homer F. Weaver of Houston won a $69,040 contract for a Prairie View College project.

Appropriations included $557,908 for four Texas A&M projects, $58,000 for four at Prairie View, $9,750 for one at Tarleton State College and $168,226 for Texas Agricultural Experiment Station facilities at Beaumont and Weslaco.

The Beaumont appropriation totaled $144,426 and completes

(See Dormitories, Page 3)

Pakistan University Head Visits A&M's Ag College

Dr. S. D. Choudhuri, vice chancellor of East Pakistan Agricultural University at Mymensingh, faces a crowded agenda in a five-day visit which opened Monday at Texas A&M.

In the midst of a whirlwind tour of six countries through sponsorship of the World Bank's International Development Agency, he launched his A&M itinerary with a tour of the Data Processing Center.

A&M President Earl Rudder will huddle with the distinguished visitor today to discuss future programs between Texas A&M and East Pakistan Agricultural University.

Since 1961, noted Dr. Jack D. Gray, International Programs director at Texas A&M, more than 100 East Pakistan students have studied at Aggieland under Agency for International Development sponsorship.

Gray, host for Dr. Choudhuri's visit, said 29 graduate students, two seniors and two sophomores are representing East Pakistan during A&M's first summer term.

The remainder of his itinerary includes stops in the Soil and Crop Sciences, Wildlife Science, Poultry Science, Agricultural Engineering and Agricultural Economics departments.

Dr. Choudhuri, in his current leadership position since 1962, earned his doctorate at the Imperial College of Science, a component of the University of London, in 1944. He earned master's and bachelor degrees from Presidency College in Calcutta, India. All degrees are in botany.

Director of agriculture for the East Pakistan Province in 1959-62, Dr. Choudhuri had spent a decade as research director for the JUTE Research Institute in Dacca.

He revealed that the International Development Agency has arranged for 15 new fellowships for EPAU's faculty development.

"Each award amounts to approximately $15,000 toward Ph.D. study," the administrator said. "Scholars will do advanced work in world bank member countries —Munich University in Germany, Lund University in Sweden, the Sorbonne in France, Kyoto in Japan, Oxford in England, and four universities in the United States."

"Those in the U. S. are Ohio State, MIT (Massachusetts Institute of Technology), Cornell and Texas A&M," Dr. Choudhuri continued. "All participating EPAU faculty members already have master's degrees."

While at A&M, Dr. Choudhuri will visit with Pakistani students, lunch with International Programs officials, confer with Agriculture Dean H. O. Kunkel, and be guest of honor tonight for a dinner with President Rudder as host.

Dr Choudhuri will board a jet early Saturday for a flight to Tokyo enroute to Mymensingh.

'FUN AND GAMES'

The next dance of the Memorial Student Center's Summer Directorate will feature the "Fun and Games Commission," formerly the "Six Pentz." The band has recorded such top hits as "Today-Tomorrow" and "Imitation Situation," according to Denny Kniery, dance committee chairman. The dance next Tuesday at 8 p. m. will feature a "Wisk-a-Go-Go" theme and a special surprise attraction which promises to be a bargain at twice the price, says Kniery.

Aggieland 'Hams' Make 1,500 Calls

Texas A&M ham radio operators talked to approximately 1,500 different stations over the weekend in a national communications field day testing amateur emergency operating capabilities.

Ted Wittliff of Taylor, junior electrical engineering student who participated in the 27-hour test, said the seven-man A&M crew came close to tying the national record for number of stations contacted and may have led the nation this year.

Wittliff said it will be several days before Memorial Student Center Radio Club members tabulate all the entries on their logs and even longer before the national results are published.

He noted there could be some duplications in the estimated 1,500 calls made from portable equipment placed in the Kyle Field press box.

The national record is about 1,630 calls, Wittliff said, adding that A&M won the national competition several years ago.

Each call this year, he explained, lasted approximately 30 seconds and consisted of a signal report and location of receiving station.

He said all equipment had to be operated from emergency power and be set up after 2 p. m. Saturday.

Aggie ham operators, whose call sign is W5AC, have handled emergency traffic during hurricanes when standard communications channels were wiped out. They also provide radio-phone patch links for A&M personnel on assignment in foreign countries.

Completing the A&M team were students El Campbell of Houston, Rick Dougherty of Griffin, Ga., Ken Polk of Riesel, former student Bill Parry of San Antonio and two College Station high school students, Jack Madeley and Dave Hoffman. Also involved in the operation were club advisors, Dr. W. D. Harris and Bill Harris, chemical engineering faculty members.

'Old Army' Movie At Grove Friday

Friday is going to be a big night for movie-goers at Texas A&M's Grove Theater.

The scheduled film, "We've Never Been Licked," usually packs students into the open-air amphitheater.

"The movie portrays student life at Texas A&M and follows many Aggies through World War II exploits," noted theater manager James Hill of Abilene. "It's a dandy!"

The Universal production stars Robert Mitchum and Noah Beery Jr. Anne Gwynne and Martha O'Driscoll are the featured fems.

Director is Walter Wanger, tops in his day. The stars spent weeks on campus making the film.

"They attended football games and other student activities," a veteran A&M staffer recalled. "Best of all, they mingled daily with students in efforts to get a better feeling of Aggie spirit."

Hill said "We've Never Been Licked" is billed as an added attraction to follow "To Be a Crook" slated for 8:30.

"We've Never Been Licked," Hill added, "will be shown about 10 o'clock. However, it might be a good idea for patrons to arrive early. That way, they can be assured a seat."

Rain holds no horrors for Hill. He has made arrangements for both movies to be shown in the Memorial Student Center Ballroom if inclement weather prevails.