

Metal Boxes Aid Forecasting

A future hunter tramping through a Northwestern United States forest may run across an unusual metal unit in an isolated clearing.

The apparently out-of-place device, sealed against elements, prowling animals and prying fingers, carries an identification plate marked "World Weather Watch."

The barrel-size instrument is the present-day meteorologist's daydream for more accurate, inclusive weather forecasts.

Similar devices of a buoy type will probably be found scattered through the world's oceans and seas.

The automatic, self-regulated apparatus, perhaps placed by helicopter and checked only once in a decade, will record weather information at programmed intervals.

The unit's atmospheric information, taken world-wide at the same time, will be telemetered to satellites, relayed to a large computer complex and turned into weather maps for every area of the world.

The meteorologist's key problem, according to Dr. Vance E. Moyer, Texas A&M Meteorology Department head, is collecting data about temperature, humidity and pressure — factors required in equations that produce today's synoptic weather maps from which forecasts are deduced.

He noted that during the recent International Geophysical Year only 10 per cent of the earth's atmosphere was under accurate study.

Recent technological advances are increasing man's capability to get a more detailed look at the earth's thick envelope of gas. But information presently utilized is still inadequate to make precise evaluations of how the air layer will behave—and pro-

duce weather.

Expense is the bottleneck. An A&M study for Eglin AFB officials in Florida estimated optimum instrumentation for the Eglin Gulf Test Range to minimize firing risk.

Meteorologists decided seven upper atmosphere sounding stations around the Gulf of Mexico would do the job, at a half million dollar price tag not including men's salaries. The entire weather system outlay for the first year was estimated at over \$11 million.

"Weather forecasters are doing a remarkable job," Moyer declares. "There is no reason to expect the accuracy they achieve considering skimpy data with which they have to work." U.S. Weather Bureau forecasts are considered 85 per cent correct.

Development of more reliable forecasting hinges on six areas of research and development.

Meteorologists are working on more sophisticated use of computers, non-linear secondary differential equations, LASER technology, radar, constant density balloons and weather satellites.

Present forecasts are made from computer-drawn maps issued from Suitland, Md. Atmospheric information on temperature, humidity, pressure and wind is derived from radiosondes and weather stations across the hemisphere. Data collected independently at the same Greenwich standard time is inserted in Suitland computers through differential equations. The computer "answer" is maps showing pressure, vorticity (wind) and other information forecasters use in making weather estimates.

Besides inadequate sampling, problems crop up in the equation and scale of the material.

Weather as humans view it is on the mesoscale. Sunlight, wind, snow, rain, sleet and clouds are

"cells" of the synoptic (continental or hemispheric) basis by which the computer treats air masses.

The differential equation does not lend itself to solution. It does not handle hard numbers that are used in totalling grocery bills and figuring junior's school grades.

Skimpy radiosonde and station data must be extrapolated to fit a grid system the computer can handle.

"Human interpretation is still required to produce forecasts," Moyer noted. "But the time will come when complexes of machines will make the total forecast. I don't expect to live to see it," the 52-year-old department head said.

Laser research at Northwestern and Texas Universities seeks a way to collect upper air information by amplified light beam. Another tool, radar, is a perfect forecasting device, according to Geosciences Dean Horace R. Byers.

"Radar is ideal for short-term predictions where weather systems are intact and moving. It is extremely accurate to 150 miles, where the earth's curvature causes its line-of-sight beam to miss low-lying weather," Byers commented.

He said radar detects objects such as tornadoes, after the funnel touches the ground.

"The recent Chicago tornado touched down the first time at the point of destruction," he stated. "In the Topeka, Kan., destruction of Washburn College, radar gave 45 minutes warning and the area was evacuated with no life loss."

He said Stuart Bigler of A&M received an award for predicting tornado movement into the Bryan-College Station area in 1956. Bigler is now in charge of Weather Bureau radar programs.

"It's possible better and cheaper automation will fill observation requirements for more accurate forecasts," Byers went on. "But there is nothing on the horizon now to fill this need. Automatic reporting stations are still too expensive."

Satellite meteorology, the field of Dr. Aylmer Thompson, will eventually assist in the mesoscale weather picture, he says.

"The satellite program is tremendously oversold," Thompson added. "Many people believe that a satellite put in orbit will immediately start giving detailed weather data."

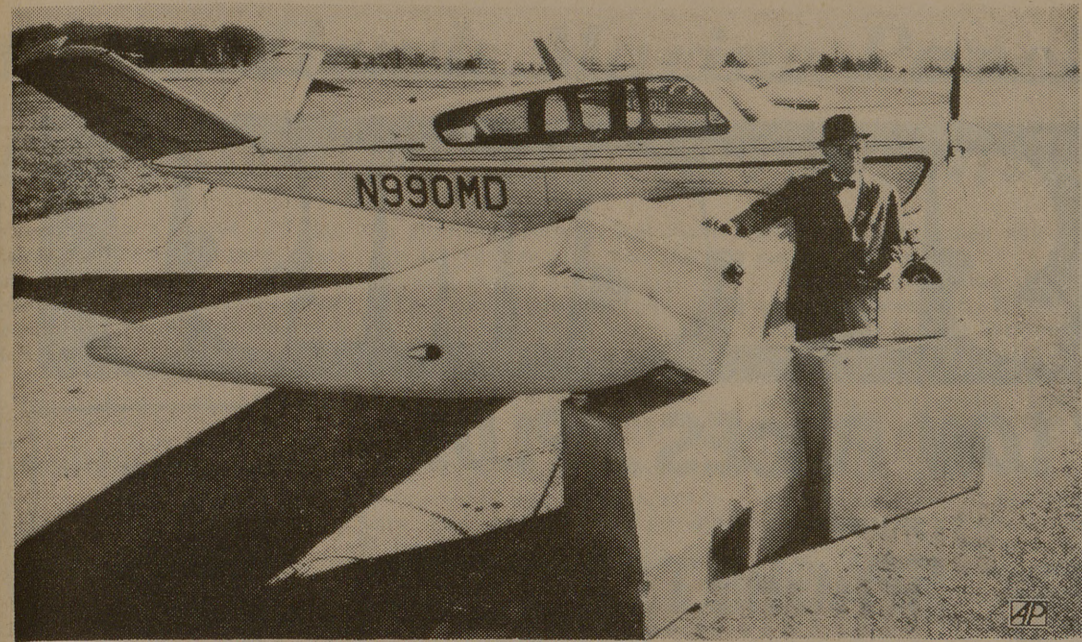
"Present satellites show cloud formations from which smaller scale weather features may be deduced," the professor went on. "Extensive research will be required for technique perfection."

Powell Urges Staff To Use West Side

University employees working in the Academic Building or buildings west of it are encouraged to use access on the west side of the campus by Ed E. Powell, campus security chief.

"Since FM 2154 has been improved," Powell said, "those employees could come up Jersey Street, get on FM 2154, enter the campus at Routh Boulevard, and get to buildings like the MSC, the YMCA, or the Academic Building much faster than by trying to fight all the traffic on the north or east sides of the campus."

Powell said this would greatly reduce traffic problems which occur at the four peak periods: in the morning, before and after lunch and in the evening.



TINY CRAFT FOR PROJECTED LONG FLIGHT

Dr. Francis X. Sommer, of Barbourville, Ky., stands beside his single-engine airplane at Barbourville. With extra fuel tanks, he hopes plane will take him and Dr. John Rieber 18,000 miles around world. This is planned as part of 40th anniversary of Lindbergh's New York-Paris flight in 1927. (AP Wirephoto)

Graduate Begins Practice In Education, Psychology

The Education and Psychology Department's fourth doctoral graduate will enter the practicing education world next fall.

Paul L. Stevens, 45, expects to receive his Ph.D. in August. He has been employed as associate professor in the School of Education at Southwest Texas State College, effective Sept. 1.

"Paul's position is quite an honor for the department," stated Dr. Paul Hensarling. The education and psychology head noted that earlier A&M education doctoral graduates are professors at Texas Christian University, the University of Jordan and a Bryan Public Schools official.

Stevens, formerly of Fort Worth, is completing requirements for his doctorate in educational administration. His dissertation involves regional educational service center development through the Texas Education Agency.

The 1951 A&M graduate will

instruct in the SWTS teacher training program, announced Education Dean Lloyd Rogers. Stevens has worked in the same area at A&M under Dr. William W. Stokes, as graduate assistant. During 18 years in Harris County educational positions, Stevens was probation officer for the county and Galena Park School District, where he was also a high school history teacher and assistant superintendent.

While in Harris County, he earned his masters degree in educational administration at the University of Houston. From 1960 to 1964, he was Hereford schools superintendent.

The new Southwest Texas professor is a member of the Texas State Teachers Association, American Association of School Administrators, Texas Association of School Administrators, Phi Delta Kappa and TEA's special committee on textbook problems. He is past president of the Panhandle Superintendents Association and state committee

consultant for writing a "Handbook for Pupil Accounting."

His civic activities include Kiwanis, Chamber of Commerce and church board chairmanships.

Stevens and his wife, the former Dale Wray of Houston, have two sons. Mickey, 22, is in the Army. David, 20, is a junior in the Corps of Cadets at A&M. The family resides at 419 Tauber, College Station.

Bonds Are Sold Worth \$800,000

Brazos county officials sold \$800,000 in bonds to the Republic National Bank of Dallas Monday at an interest rate of 3.81 per cent over the next 21 years.

The bonds had been approved by Brazos county voters in a special election last month to finance construction of a western by-pass around Bryan-College Station.

Davis McGill, the county's financial agent for the bond issue, said that the commissioner's and all officials concerned were very happy with the rate. McGill says that the 3.81 per cent will amount to about \$397,000 in interest.

Last week, the county commissioners approved a 25 cent tax rate which will affect about 25 per cent of the residents in Brazos county.

Funeral Today For S. O. Payne

Funeral services for Sidney O. Payne, 85, of 1900 Reese, Bryan, was held today in the Hillier Funeral Chapel in Bryan.

Payne was a retired employe of the Texas A&M University Power Plant. He died Tuesday in a Bryan hospital.

The Rev. Bob Owens, pastor of Calvary Baptist Church, Bryan, officiated at funeral services. Burial was in the Bryan City Cemetery.

Survivors include three daughters, a son, a sister and six grandchildren.

Students Set Tire Record

TYLER, Tex. (AP) — Tyler Junior College Wednesday claimed a new "tire-stuffing" record when 37 of its skinniest students managed to climb into a huge 44.5 by 45 casing.

Dale Ayres, president of Kappa Sigma Lambda, which both sponsored and won the event, said it broke a record of 24 set by Stephen F. Austin College. He said Washburn University currently is third with 23 students stuffed into a tire.

The women's title in Wednesday's contest was claimed by 35 residents of the Nurses Dormitory who managed to stuff themselves into the tire.

At one time 40 girls managed to get in the tire but were disqualified because they came from three organizations, not one as required by what Ayres said were the official rules in the tire-stuffing contest.

Services Held For J. W. Hall

Funeral services for J. W. Hall, 80, of Bryan, a former manager of the Texas A&M University Press, were held this afternoon at Hillier Funeral Home in Bryan.

Hall, an employe of the A&M Press for 25 years died Wednesday in a Bryan hospital.

The Rev. Morris House, pastor of First Methodist Church, officiated at funeral services. Burial was in the Kurten Cemetery.

Survivors include a daughter, four sons, four sisters, a brother, 17 grandchildren and four great grandchildren.

Forms Needed For Veteran Allowance

Students now receiving veteran educational allowances who plan to stay in school this summer must complete forms at the Student Affairs Office in the basement of the YMCA.

Any person eligible for such allowances who has not applied and wishes to do so may obtain necessary forms at that office.

Further information concerning veteran benefits is available at the office or by calling 846-5423.

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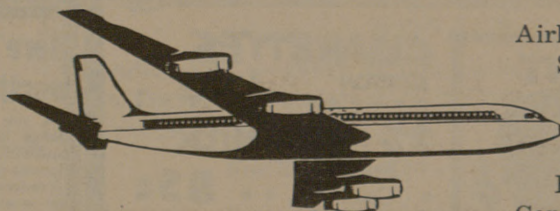
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