## For Dynamics Research

# **Aero Engineers Get 2nd Plane**

Texas A&M's Aerospace Engineering Department has acquired its second airplane for research into some fundamental problems of flight dynamics.

The aircraft, a Piper Super Cub, had been used by the Border Patrol. It will join the university's other reseearch -plane, a Grumman Ag-Cat, at the A&M Research Annex where parallel 7,500-foot runways and a pair of 5,000-foot strips are available. (The Research Annex, several miles from the A&M campus, was formerly the Bryan Air Force Base.)

Activities of the Aerospace Engineering Department here will constitute the "Texas A&M Flight Test Station."

Dr. Richard Thomas, professor in the Aerospace Department, hopes to expand studies in aerodynamics, including air turbulence with the new plane.

"EVENTUALLY, we hope to work toward a device which

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Games

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at A&M

Tech at

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Baylor

Rice

Arkansas

might sense when an airplane starts to fly through turbulence and maybe we can alter the lift patterns with jets of air or other levices," Thomas said. "This

would make the flight smoother." The problems of turbulence and especially "clear air turbulence", are under intensive research today. High flying commercial' and military jet aircraft have been buffeted and even destroyed by invisible turbulence occurring in perfectly clear skies. At A&M, researchers have de-

veloped a device which introduces gusts in a small wind tunnel and will place a similar device in the university's 7x10-foot wind tunnel.

At present, members of the Aerospace Department are installing a four-channel telemetering system in the Grumman Ag-Cat. This airplane, originally designed for agricultural use, has adapted well to aerodynamic research. The test equipment is

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being placed in the section originally designed for chemical tanks, mas said.

Information about control positions and aircraft motion will be telemetered to a house trailer reception center and recorded onboard the aircraft at the same time.

The department is conducting studies of barried landing techniques-that is, landing an aircraft after clearing some obstruction. An easily broken wire holding colored balloons is strung between tall poles to simulate barriers. The study may change some of the traditionally accepted ways of performing such landings.

THOMAS SAYS the aerospace industry expresses considerable interest in some basic problems dealing with the whole area of interaction between vehicle and atmosphere. "There are still a lot of unknowns here," he asserted.

Mr. X

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The relationship between pilot and aircraft is of particular interest.

"Just how does a crop duster know when to pull up to miss the tree at the end of the field? What factors influence the decision? These are some of the things which are known in terms only of experience now," Thomas inted out./



Carrier Air Conditioning Company: Electrical Engineering (B), Industrial Engineering (B), Industrial Technology (B), Mechanical Engineering (B).

Lockheed Electronics Company. Houston Aerospace Systems Division: Aerospace Engineering (B,M), Electrical Engineering (B, M), Mechanical Engineering (B, M), Computer Science (B,M), Mathematics (B,M), Physics (B, M).

Lybrand, Ross Bros. & Montgomery: Accounting (B,M), Management (B,M).

San Antonio Public Service. Board: Civil Engineering (B,M), Electrical Engineering (B, M), Mechanical Engineering (B, M), Mathematics (B, M), Physics (B, M).

Services Bureau Corporation: Electrical Engineering (B, M), Industrial Engineering (B. M). Computer Science (B, M), Mathematics (B, M).

Southwestern Life Insurance Company: Accounting (B), Economics (B), Finance (B); Marketing (B), Mathematics (B). U. S. Army Engineer District, Fort Worth: Architectural Engineering (B, M, D), Civil Engineering B, M, D), Electrical Engineering (B, M, D), Mechanical Engineering B, M, D). Also, summer employment for Freshmen. Sophomores, Juniors, Seniors, Graduate Students.

U. S. Army Engineer District. Galveston: Civil Engineering (B, M), Electrical Engineering (B, M), Mechanical Engineering (B, M).



today an ever widening gap between doctor and scientist or engineer, an internationally known physicist, Dr. John Lenihan, said Tuesday at Texas A&M.

Part of the difficulty come from a lack of communication and part comes from "different ways of looking at the material world,' observed Dr. Lenihan, whose group at Western Regional Hospital Board in Glasgow, Scotland, was the first to report presence of arsenic in locks of Napoleon's hair.

THE BATTALION

Dr. Lenihan was to deliver the first fall University Lecture on "Medicine and the Challenge of Technology" at 8 p.m. Tuesday in the Memorial Student Center ballroom. The public is invited to attend the free presentation.

WHERE SCIENCE is analytical and strictly logical, medicine can't wait for complete data. "The physician needs to make a decision on incomplete information and he is always having to balance probabilities," said Dr. Leni-"The physician seeking help han. from the scientist will often be discouraged. He propounds what seems to be a simple problem and is told he needs thousands of dollars and much time to solve it. "The scientist, on the other hand, can't get from the physician exact specifications of the prob-

To narrow this gap, the West-

## Paratroopers **Gain Crest Of Hill 875**

#### By EDWIN Q. WHITE **Associated Press Writer**

SAIGON (P-American paratroopers gained the crest of Hill 875 near the Cambodian border in one of the war's fiercest battles and launched an assault to root out last-ditch North Vietnamese

and opened a dawn assault Wednesday against entrenched line, the reports indicated.

almost as high as the crest and was the dominant position on the hill three miles from the Cambodian border.

Reporting from the battle

has employed a team approach. "WE HAVE a team of about

130 people-physicists, mathematicians, engineers, chemists, doctors, etc. "And the team has to be in the

Wednesday, November 22; 1967

**Medicine Suffers From Lack** 

place where the action is." This means the team is more often in the clinical environment solving or actually discovering problems. "It doesn't work unless it's a

big effort with a good turnover and new ideas." One example of team effort in

solving medical problems is work on activation analysis in the clinical sciences. "We have a big survey on a

large number of trace elements in body tissues and are trying to develop tests to decide which are the essential trace elements."

IT WAS by activation analysis that the arsenic in Napoleon's hair was determined and this is the field of particular interest to Dr. Lenihan. While at Texas A&M, he is being hosted by Dr. Richard Wainerdi, associate dean of engineering and head of A&M's Activation Analysis Laboratory.

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College Station, Texas

Team effort at the Glasgow institution / includes study of acoustical problems and a large radioactive isotope program. The Western Regional Hospital Board functions as advisor in this field to its group of hospitals.

"We also maintain a sort of consumers advice service on instruments used in hospitals." This includes complicated electronic instruments, X-ray machines and others.

"This is hugely economical," he said.

Five additional lectures are scheduled this school year.



### BOATYARDS BOMBED IN HAIPHONG

Map locates boat construction and repair yard close to the center of Haiphong, North Vietnam, bombed by U.S. Navy planes. Boatyard is on small Tram Bac river, only 1.7 miles from Haiphong's international docks. (AP. Wirephoto Map)

