By Mike Gerstle

This question is raised by most students pondering the course. As the student representatives of the Psychology Club, we feel it is worth explaining a little bit about it.

Dr. Thomas C. Davis, chairman of the Department of the University Health Service, donated a substantial amount of cash to the University. This donation will be used for building a swimming pool.

The pool will be used by all members of the University, and especially the students. A combined effort of students and faculty, the University wants to have a swimming team in the future.

The pool will be located, 25 yards by 25 meters. Four diving boards are planned, a three-meter board, and a two-meter board. The depth of the pool will vary from 1.4 feet in the shallow end.

The pool will be heated by two sources: its primary source of heat will be the waste-heat from the nearby power plant. However, this is not for all use. It helps in administering the University's swimming program. The University decided to apply for grants through the U.S. Department of Health, Education and Welfare to expand and strengthen the Co-op plan. In 1974 the University decided to apply for grants from the U.S. Department of Health, Education and Welfare to expand and strengthen the Co-op plan. However, results were unsatisfactory.

76 WERU Saved By Security

By Pete Yost

When Embry-Riddle student Angelo Vignetti met Ellen Moom in Fall of 1977, he had no idea that their relationship would lead to his involvement with the theater. Angelo, a fourth-year student majoring in Astronautical Science, was working in Dayton, Ohio where he was attending classes at Wright State University.

Angelo didn't know that Ellen is an experienced dancer-choreographer whose theatrical career began when she was a member of a national ballet company in age 13. She appeared in over 50 theater productions in the Washington D.C. area and choreographed several ballets for local companies. She also brought Ellen to Dayton, Ohio.

In her final local auditions, she landed the role in "Sweet Charity." The director thought Ellen was a perfect fit for the role. Ellen was excited and immediately started working on the show.

Angelo's wife, Mary, also a choreographer, was excited about the show and started working on it as well. The couple started planning the show, and soon they were working for several hours a day.

The show was scheduled to open on August 15, 1977, but due to various complications, it was postponed several times. Finally, on August 20, 1977, the show opened to a packed house.

The show was a huge success, and it ran for several weeks. Angelo and Mary were both thrilled with the outcome and continued working on other projects.

The show was a huge success, and it ran for several weeks. Angelo and Mary were both thrilled with the outcome and continued working on other projects.
Dear Editor:

Concerning the recent article in "Airline and Airlines" (Nov. 13, 1977), I might point out that the DC-10 is built in McDonnell Douglas' Commercial Airplane Division facility at Long Beach, California. Their Military Aircraft Division is located at Lambert Field in St. Louis, Missouri.

Also why don't we get off the Douglas "kick," and have some articles on QUALITY aircraft from The Boeing Company. Thank you.

Sincerely,
Ray D. Katz

By Ray D. Katz
AVION Editor

PRESTIDENT'S CORNER

John O'Neal
S.G.A. President

It has been brought to my attention that we are losing another service. It seems that since the business office is moving over here you will no longer be able to check a book in the Book Store. The reason is that the reason for this is that it takes too much of the employee time to check each book. But on the other hand we are going to start having counter change which not only will take more time but also cost us 2% to handle this.

While I am talking about student services I will expand a little on a section. I don't understand when the money is going to pay. I read the reply to J. Wilson's question on this and to me it must be running out in a claim would the insurance go down? The answer I got was no.

Another problem that was brought up when is the security going to start giving speeding tickets in the parking lot. There are a lot of our fellow female students who make it a practice to write a note that is the Dayton's Ticket. Also there is the problem with the food service. If you have any complaints see Mike Geare or stop by the S.G.A. office.

VP THOUGHTS

By Dave Fraser

Ann representatives of the different Chamber of Commerce in the Dayton area. The Dayton contingent was the Board of Visitors from the area. They had an excellent dinner prepared by a side presentation that depicted Dayton life in Kennedy. All in all the various representatives enjoyed themselves very much.

I would like to express my appreciation to the student who took the motions around. These people were so impressed that many of them asked for the guide's name. These guides definitely enhanced the atmosphere of the night. Although I didn't connect this fact until later that it was said to them that it was a guide. Some of the students were so shocked it was women's food. This was not for the night was outside food. They were left with the impression of this kind of food is served to the students which was very deceiving.
Experimental Plane Uses NASA-Developed Technology

KENNEDY SPACE CEN T ER, Fla. — It required 45,000 pounds of thrust to get a 30,000-pound airplane off the ground. NASA has developed a jet engine that needs only 16 pounds of thrust to take off.

December 8, 1976. Work was completed on June 12 and took the engines for the first flight on June 16, 1976.

Some research residents may have already spotted Murphy's pride and joy. It's no surprise building the 50-hour quiet, non-inflatable engine at the Experimental Aircraft Association in Oshkosh, Wisconsin, in late August.

Making the flight with him was an opportunity of a lifetime. "Thousands of experimental and factory-built aircraft will be there," said Murphy. "We're looking forward to it."

It was at last year's show that John was exposed to the unique plane, designed by Bert Ruskin of Mojave, California. The plane does not come as a kit. Ruskin provides only plans and parts.

For Murphy, the work went faster than for most when the undertaking was the project. He's been flying for years and another aircraft is planned.

Complete construction is much like that of a surfboard. The shape and size are cut out of fiberglass. The size of the engine is increased and the nose is rounded.

"We can have a great plane to fly," said Murphy.

The aircraft weighs only 330 pounds and is powered by a 100 horsepower Continental aircraft engine. Designed primarially as a high speed, cross-country aircraft, it requires only 10 hours of flight to fly the 1,000 miles to 2,000 miles per hour.

Murphy's flying and technical background helps with the engine's development. It's a 1979 graduate of Georgia Tech.

With NASA since 1964, John's function at KSC is to serve as the focal point for new technology developed here and making it available to American industry.

"Although the 24-hour test program required by the FAA has all its flights under the FAA, the "I usually climb up to about 10,000 feet where I'm cool enough," Murphy. "It's only about 65 degrees at 5,000 feet where the wind isn't visible.

As of July 11, Murphy has logged the 24-hour required by the FAA before the aircraft is cleared for normal use.

The "new look design of the interior will feature the space
ded washable seats and the ability to fold down the windows, handling lighting and a broad, contoured ceiling.

Two Pratt & Whitney Aircraft (T-6) I turbine engines will power the Ghana DC-9. Each of the engines is rated at 13,000 pounds of thrust at takeoff.

The DC-9 (3,940 cubic feet of space available for cargo in the belly hold section.

Ghana Airways is the 11th carrier to order the DC-9 series, 50, as precluded at the McDonnell Douglas factory. The DC-9 Series 70 entered commercial service in August 1976. File order for all seven of the DC-9 total 864, plus 27 options for future orders, for a grand total of 111, of which 80 have been delivered.

The Embry-Riddle Upward Bound students received scholarships in 29 individual events and won first place in three events in basketball, tennis, and the college bowl. The men placed second overall in a full day of track events on the men's day.

While on campus, Embry-Riddle Upward Bound students attended four hour long day and two afternoon sessions. They also did field trips to area businesses and industries. Attendance and participation for all classes and projects were outstanding.

The students will present a final project report on August 15, and will have an awards banquet on August 16, 1977.

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AFROTC
By Bradford King

Air Force ROTC is so far removed from a lot of people's minds as to be almost invisible. One, I would like you to take an active part in our program. AFROTC gives you the opportunity to associate with a great many people and to be an active part of the Air Force and other branches of the service. As members we strive hard to keep our officers and men interested in the service. Our program is unique in that it is not only for those who want to become officers, but for those who want to become technical people. The program is open to all students, regardless of their major. It is a great opportunity to learn about the military and to be an active part of it. I encourage anyone who is interested in the military to consider AFROTC.
**NEW YORK CITY, JUNE 21, 1977**

NASA's John F. Kennedy Space Center held its 21st annual International Air and Space Festival on Saturday, June 18, with a record 2.5 million visitors expected to attend.

The event, which featured a variety of aircraft and spacecraft exhibits, attracted people of all ages and nationalities. The festival was sponsored by the National Aeronautics and Space Administration (NASA) and was the largest air show in the world.

The day began with a spectacular display of military aircraft, including the United States Air Force's F-16 Fighting Falcon, which performed an aerobatic routine.

Later in the day, commercial airlines showcased their latest models, including the Boeing 747 and the Airbus A380.

Spacecraft exhibits included the NASA's Space Shuttle and the International Space Station models. Visitors had the opportunity to explore the interior of a replica of the space station and learn about its capabilities.

Other highlights included a demonstration of the SpaceX Falcon 9 rocket and the SpaceX Dragon spacecraft, which have been used to transport supplies to the International Space Station.

The festival also featured a variety of educational activities, including interactive displays from NASA's Jet Propulsion Laboratory and the National Geographic Society.

The day ended with a fireworks display over the Kennedy Space Center, marking the end of the festival.

Overall, the festival was a success, with visitors enjoying the various exhibits and demonstrations. The event was free to attend and open to the public, making it accessible to people of all ages and backgrounds.

The festival was a testament to the power of science and technology, and it highlighted the importance of space exploration and discovery.
HYDROPLANNING

By Kenneth M. Maddox

When landing on water, the water acts as a drag, which can be reduced by hydroplaning. Hydroplaning occurs when an aircraft operates on the water surface, causing the wheels to lift off the runway surface, and the aircraft can then operate on the water's surface.

When the tire reaches total hydroplaning speed, the tire tires or skirts lift off the runway, and the aircraft can run on water, which is a significant advantage when landing in water.

However, the wheel will splash at a lower speed than that required for anti-slip when accelerating, and it is actually hydroplaning when the wheels lift off the runway. Hydroplaning can be caused by extremely small amounts of fluid on the runway (as little as 0.1 inches) or when the runway is excessively flooded (fluid depth greater than 3 inches).

Note: Adverse effects on controllability occur at speeds below 40 knots, and this effect is usually noticeable at speeds below 100 knots.

Hydroplaning speed occurs when a water depth of 0.1 inches and a tire pressure of 21 to 24 pounds per square inch are met, and the tire will lift off the runway. Hydroplaning can be caused by water depth greater than 3 inches.

Total hydroplaning speed may be roughly estimated by using the following formula:

\[ \text{Estimated Speed} = \frac{\text{Current Speed} \times \sqrt{\text{Fluid Depth}}}{10} \]

It should be noted that the water speed is only a rough approximation of either variable water depth as:

1. Tire tread depth
2. Water (or slick) depth
3. Runway surface (gritted or smooth)
4. Weight of the aircraft (as distributed per tire)
5. Landing gear arrangement

Drag increases as the height of the water speed compared to the predominant factor in determining the maximum water depth (usually 80 to 90 percent of the tire tread). The difference in height may be an advantage when landing, but it has been proven that the most drag occurs at VP, which should be avoided.

Hydroplaning speed occurs at 0.1 inches and a tire pressure of 21 to 24 pounds per square inch. When the runway is excessively flooded (fluid depth greater than 3 inches), the tire will lift off the runway, and the aircraft can operate on the water's surface.

DACA: Dynamic hydroplaning occurs when the water depth on the runway is between 0.3 inches and 0.4 inches and usually occurs at higher speeds. Figure 1 shows partial hydroplaning caused by a wedge of water lifting the tire off the runway (partially), reducing the tire's effective footprint area, thus reducing traction. Figure 2, total hydroplaning occurs when the water depth on the runway is below 0.1 inches, and the tire is no longer in contact with the runway.

Hydroplaning is more likely to occur at a water depth that is substantially less than that required to induce Dynamic Hydroplaning. It may even be caused by most drivers on the runway with runoff water and deposit on the runway.

Reynolds Number: When operating on water, the water depth is usually less than 0.1 inches, and the tire pressure is low.

The ability to plan ahead is indispensable when dealing with hydroplaning. An aircraft may sustain severe damage to the transmission and other components if it hydroplanes on takeoffs or landings.

During a hydroplane, the pilot must follow specific procedures to prevent damage to the aircraft. The pilot must remain calm and maintain control of the aircraft.

The Rolls Royce Motorcar

By Ed Schmidt

The goal of the Rolls Royce Motorcar is to assemble the finest car possible. Basically, this is accomplished through a combination of design, materials, and craftsmanship. Each Rolls Royce features a wide range of options and customizations to meet the individual needs of the customer.

The interior of the car is designed to be comfortable and luxurious, with Rolls Royce quality and craftsmanship. The car is built to last for many years and can be passed down to future generations.

For an example, the Rolls Royce Phantom is a luxurious vehicle with amenities such as:

- Frost rear-seat privacy curtains
- Two outside mirrors
- Floor mats with Rolls Royce embroidery
- A Rolls Royce digital speedometer
- A Rolls Royce digital clock
- A Rolls Royce digital fuel gauge

The Rolls Royce Phantom is a luxurious and comfortable vehicle that is designed to provide a smooth and enjoyable ride. It is built to last for many years and can be passed down to future generations.

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