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Embry-Riddle Aeronautical University

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'17' WALTRIP'S LUCKY NUMBER

AVION



Volume 61, Issue 6

Embry-Riddle Aeronautical University, Daytona Beach, Florida

February 22, 1989

Aeronautica



This year's Skyfest will feature Formula Vee racing for the first time since 1979. This year's event should be eventful. **Page 4**

Campus News



Congressman Craig T. James hosted some Embry-Riddle students in his Daytona Beach office. **Page 6**

Clubs



The ERAU Chapter of Brothers of the Wind featured an unveiling of a portrait of General Daniel "Chapie" James. **Page 11**

Diversions



Larry "Bud" Melman of "Late Night with David Letterman" recently showed up at a local venue to showcase his talents. **Page 14**

Space Technology



Cape Canaveral saw the launch of the first Delta II rocket, the mission carried a GPS satellite for the military. **Page 12**

Trivia: February 20 marked the 27th anniversary of the Friendship Mission of John Glenn. Friendship VII was the first U.S. manned orbital space flight.

Eagle baseball team boasts 3-1 record

by Phyllis A. Salmons
Copy Editor

The Eagles Baseball team is ecstatic after having beaten one of Florida's powerhouse teams, Edward Waters, by a score of 12-11 on Monday night. The win brings the Eagles to 3-1 for the season.

The Eagles opened their first NAIA season with two victories over Washington and Lee Community College of Virginia last Wednesday at City Island Stadium. The Eagles battled to a 10-4 victory and came back the following night to win 6-3.

Wednesday's game was led by sophomore John Morningstar who pitched five innings giving up only one run and two hits. Morningstar struck out five opponents. Eagle Greg Phillips pitched the other four innings giving up four hits and three runs and striking out four.

Outstanding hitters for the first game were freshman Chris Herring who was three for four with two RBIs. Senior Al Jackson hit a double and a triple driving in two runs.

In the rematch on Thursday, Eagle Chuck Smith pitched all nine innings giving up three runs and three hits. Smith struck out eight in Thursday's game.

In that game, Claude Archambault and Brian Callahan each had two for three with two RBIs apiece.

The Eagles played their third game of the season on Sunday afternoon against Central Florida Community College where they suffered their first defeat 23-5. Coach John Filor explained, "We were not as bad as the score would indicate. We played a couple of innings with errors and had some unfortunate calls." One of the players also indicated that the cold, windy weather was a factor against the team.

The starting pitcher for the Eagles on Sunday was Greg Phillips who gave up eight runs on two hits, and walked quite a few. Pitcher Jeff Hoster had even worse luck giving up 14 runs and seven hits. John Morningstar pitched the remainder of the game.

Greg Trautmann, a junior first baseman, hit two for three and after the first three games was batting 500.

On Monday night, the Eagles faced one of the toughest competitors in the schedule, Edward Waters College of Jacksonville. The Eagles played an exciting game scoring eight runs in the first inning. Edward Waters came back with four runs in the third



Home run...

Embry-Riddle baseball team is enjoying great success in their first season. Their record stands at three and one after four starts. Although attendance has been lacking the team is still enthusiastic about the rest of the season.

inning and three runs in the fifth. The Eagles scored another run in the sixth and the competitors scored two in the seventh. The Eagles held on for the victory with the final score 12-11.

The winning pitcher and hitter for the Eagles was Chuck Smith. Smith pitched for seven innings before being relieved by John Morningstar. Smith was the Eagles top hitter with three, with Chris Herring having two hits, Rob Givler with two hits and Brian Callahan with two hits.

After the Monday night win, Coach Filor said, "I'm not going to sleep for two days! I'm so proud of the team. Most kids would have lost momentum after a

loss like Sunday's. The Eagles came right back! That's absolutely amazing, especially against a team like Edward Waters!"

Coach Filor was "very disappointed" with the spectator turnout at the first four games. "I really your student ID as you enter the stadium and you will have no trouble."

The toughest part of the season is just ahead of us according to Coach Filor. "Some people think the community colleges ought to be the easiest to beat, but they don't realize how many of them are farm teams for the four-year universities. We may lose a few, but we'll win a lot of games too!"

see BASEBALL, page 9

Faculty Profile:

Randy Griffith, Avionics Technology

by Phyllis A. Salmons
Copy Editor

"When I first came to Embry-Riddle, there were three girls enrolled," said Randy Griffith, an Associate Professor in the Avionics Technology Department at Embry-Riddle. Griffith first came to ERAU as a student in 1975. "I was in the first graduating class in the Avionics program."

The changes at Embry-Riddle in that time have been "remarkable" according to Griffith. "The library was in a trailer and what is now the University Center was a hole in the ground."

Before becoming a member of the faculty, Griffith earned his Bachelor of Science in Aviation Technology and a Certificate of Completion on Avionics Technology. He also obtained a Certificate of Completion as an Aviation Maintenance Technician in Airframe and Powerplant Technology.

When asked what he did before becoming a student at Embry-Riddle, Griffith explained that he went to work for a radio/TV station after high school. He also attended West Virginia University in his hometown, Parkersburg, W.V., for a short time. Shortly thereafter he was drafted and became a member of the Army Signal Corps where he worked with microwave signals.

After the Army, Griffith graduated from Broadcast Academy in Colorado Springs, Col. with a First Class P.C.C. Radio Telephone Operator's License. "The first class test was really tough, covering vacuum tubes, rules and regulations, and troubleshooting. What a test!"

Griffith worked for WTAP Television Station in Parkersburg as an Audio Visual Switcher, Director and Cameraman. There he supervised and trained personnel in all phases of broadcasting operations.

Griffith became a faculty member in the Avionics Technology Department in 1977 where he has taught courses in Semi-Conductor

Theory, Basic Systems, Basic AC and DC Theory, and Advanced Digital Theory. Also while working, he completed his Master of Business Administration in Aviation at Embry-Riddle.

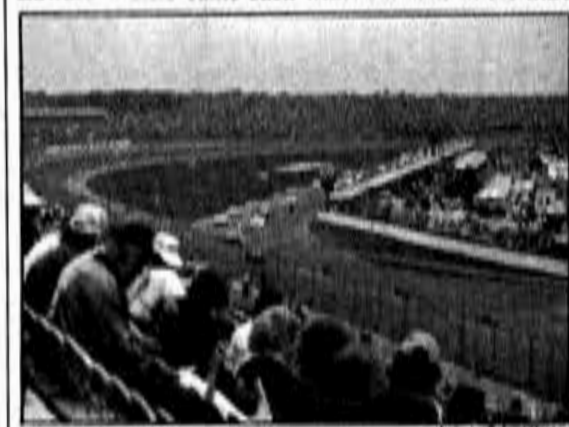
For approximately one and one-half years, Griffith when to work at General Electric Company in Daytona Beach as a Simulation Test Engineer. He was responsible for the assembly, alignment and maintenance of tank simulators on a Conduct of Fire Trainer (COFT) Program. The job "required extensive use of digital troubleshooting techniques as well as mechanical/electrical interface technology."

"At General Electric it was very important to be able to write well, something many of our students want to ignore. Industry needs peo-

ple who can express themselves well, and this is the place to sharpen that skill." While at GE, Griffith formatted and documented 162 Built-In Test computer programs for distribution by the U.S. Army. He also formatted and maintained 116 test procedures for use by General Electric during the production of M-1, M-60 and M2/3 simulator components.

At ERAU, Griffith currently serves as his department's representative to the Faculty Senate. He is on the Nominating Committee, the Person-to-Person Committee, and the Co-op Council. Griffith is also the current editor of the *Avionics Technology Review*. He is a member of the American Association of University Professors

see PROFILE, page 9



Waltrip steers the Tide machine to victory lane

by Phyllis A. Salmons
Copy Editor

Darrell Waltrip won the 31st Daytona 500 last Sunday, the top spot having eluded him for 16 years. Upon reaching victory row, Waltrip emerged from his Chevy, exclaiming "This is Daytona, ain't it?"

Though victory is sweet, this one can be attributed to frugal fuel management, Waltrip having run the final 53 laps (132.5 miles) without pitting for fuel. "I kept easing off the fuel and drafting off people."

This win for Waltrip, 42, a three time NASCAR champion, was his 14th overall victory at the Daytona International Speedway, but none of them compare to winning the 500.

Waltrip maintained an average speed of 148.466 mph, having been slowed by seven caution periods over 30 laps. Waltrip took the lead on lap 197 and held on to beat pole-sitter Ken Schrader, who led for 114 laps, and Dale Earnhardt after they pitted on lap 190 for fuel.

Schrader came in second and Earnhardt finished third, both driving Chevys.

The 31st Daytona 500 ran three hours, 22 minutes and four seconds, under cloudy skies. There were 15 drivers who exchanged the lead 30 times.

Waltrip, who started the race in second place and led four times for 25 laps, won \$184,400 for his 74th career win before an estimated 140,000 people.

On lap 73, there was a major pileup, when Jody Ridley plowed into the wall on turn two. Ridley was the driver substituting for Bill Elliott, who broke his wrist in a qualifying race last week.

That incident caused a seven-car incident which slightly injured two drivers, Rodney Combs and Chad Little. Combs was examined at Halifax Medical Center and released, while Little was treated at the infield care center.

Tommy Deese, a member of Sterling Marlin's crew suffered the worst injury of the day when he

see RACE, page 16



Randy Griffith of the Avionics Technology department has a wealth of experience to the department. Randy has a very diverse background in his field including an enlistment in the U.S. Army Signal Corps.

Editorial

The Air Science curriculum is one of this university's biggest drawing cards. More than a third of the student body is training in this program with aspirations of becoming professional pilots. Are they getting the type of training that they should or is the Embry-Riddle flight department an overcrowded FBO with too few aircraft and too many students?

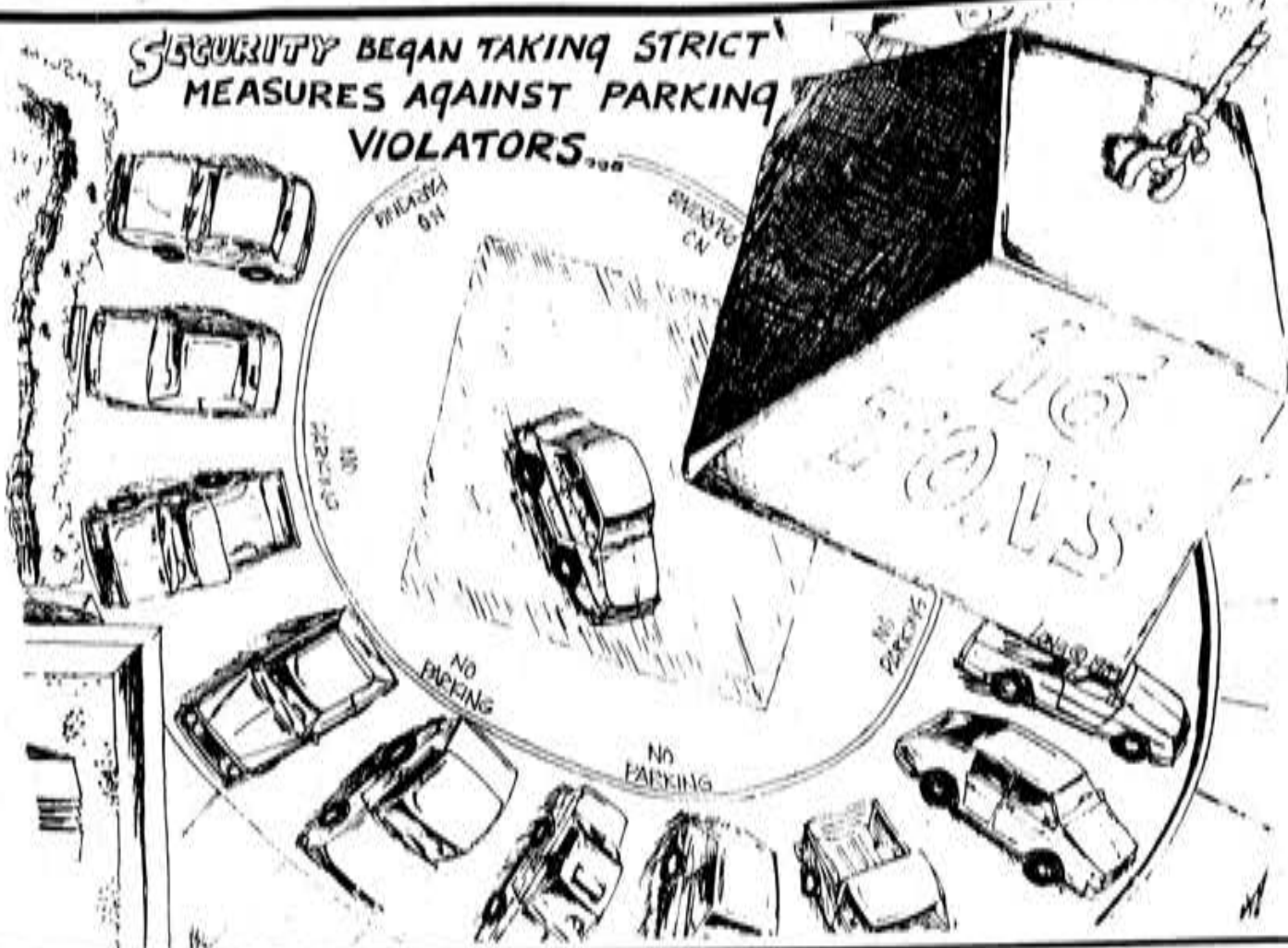
One of the major complaints is the waiting time for beginning a flight course. An initial delay is understandable. But once a student finishes the first flight course they should be allowed to progress into the next course right away. This will allow students to keep their ability and interest at a peak. At this time, there is an average waiting time of two to four months before starting each course. Such a time lag allows skills to deteriorate and interest to wain. Check rides for students with prior training could eliminate excessive waits and save the students a considerable amount of money. Now, unless you have commercial license, you have to start with FA 104 (Primary Flight). Why is it a person who may have spent thousands of dollars to receive a private pilot license, an instrument rating or even a multi-engine rating has to start at the primary level?

Most people would argue that since we are a Part 141 school, such a person could rapidly progress through FA 104 and move on. Not so. To mention one case in particular, a student with a private pilot rating and over 70 hours of flight time was required to take 13 hours of instruction before being allowed to solo! The flight department should have a program to cater to these people. A check ride or one week course to assure that they are meeting the standards for their particular rating could help unlog the system. Not only would this help the student's progress and save them money, it would free up a slot for those following. It would reduce the initial waiting period as well.

After a student has finally progressed to FA 105 and finally begins flying again, the first thing a student does is a review the basics of flight. There is time and money spent going back to square one. Why? Because of the time lag, skills have deteriorated. Let us say that a student does not satisfy the requirements of the school while performing a maneuver. Does the instructor take into consideration that the student may not have flown in four months? Sometimes yes, sometimes no.

The flight department implies that academics come before flight, that's fine. But then they impose requirements for far greater time commitments. This gives conflicting signals and increases the stress load that students have to bear.

The university needs to take a long hard look at the design of the flight program. We need to keep the quality high but we have to stop scaring away people who are serious about aviation and are not willing to wait the unreasonable times that the current program requires.



Letters to the Editor

Computer breakdown

To the Editor:

I would like to address a problem which has gone unchanged now since mid Fall semester. When will the printers in the Academic Computer Lab be repaired? I have gotten the feeling that I am asking this question in vain.

It would seem that there is some confusion as to who is responsible for repairing them; yet, after three or four months one would think these matters could, and should, be settled.

Many students have gotten quite verbal with the lab monitors and assistants concerning this matter. They (monitors/assistants) are, no doubt, relaying these complaints to their superiors yet there is yet to be any improvement in the situation.

For a class like tech-report writing a poor quality printout could result in a drop of a letter grade. Why is this happening? We, those

who take CS classes, are paying per credit-hour lab fees. Where are these fees going? Recently, the ribbons have been being changed on a regular basis, this is a start but it's just not enough.

About fifty new PS/2 model 30s were put in the lab, why can't a few new printers be ordered? Better yet, if it's a matter of cost, repair the old ones.

Forrest J. Egan
Box 2247

Put up or shut up

To the Editor:

I am curious what the student body here at Embry-Riddle wants. They spent last semester crying about the Basketball team and the poor quality of their play, yet the stands at the recent baseball games are empty.

The baseball team is proving

very successful, having won several games during their young season. They are beating some of their opponents with relative ease, and no one is attending the games. Where is the guy that said that he wanted his sports activity fee back. Have you been to any of the games.

The athletes here at Embry-Riddle are taking a big risk even going out for a team. They are chancing little success, they are risking ridicule by an ungrateful student body and still they play. They take the time and the effort to carry the Embry-Riddle banner on to the playing field for all of us.

I think the student body should at least give these guys a break and go to at least one of the game of your choice. Not only is the baseball team winning the La Crosse team has done very well too. I think all of us should support ERAU sports or stop complaining.

Doug Miller
Box 7035

Physics problems

To the Editor:

I would really like to address this letter to the Department Chairman of the Math and Physical Science department.

I would really like to know who makes up the problems for the Physics 104 labs. These problems have proven totally inadequate. They are not suiting the purpose for which they are intended. The first two problems were not the least bit realistic. Not only that they forced students to research material on their own that they had not even begun to discuss in class.

Not only that they also used units that are not even close to being in the mainstream. They are forcing students to convert only as an inconvenience not to learn anything.

I think there should be some closer supervision on the part of Physics department to make sure that these problems actually ac-

see LETTERS, page 16

Student Forum

The Avion Asks: Do you plan on supporting ERAU baseball by attending the games?



Bill Stephens

Sure, Baseball is the Great American game and what better way to show school spirit than to support the home team and the great pastime.



Charlie Garcia

With AMT it is kind of hard to attend the games and with work it is even more difficult. If I had the time I would go.



Amy Frouz

If I had more time I'd go because I think we need to show more school spirit.



Jeff Smith

Win or lose I plan on attending, because I enjoy a good game and everybody should support the home team.



Britt Emanuel

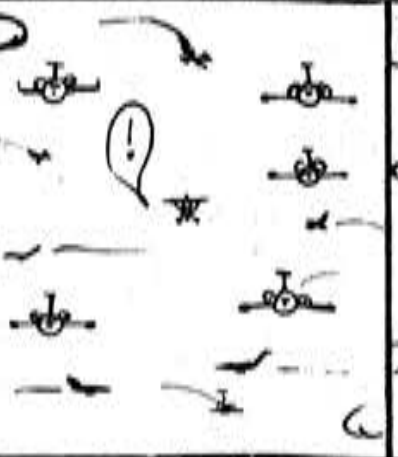
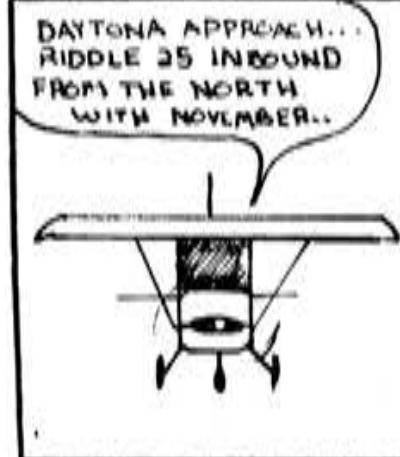
Yes, I think it's great that our team is doing well. Finally our sports activity fee is being put to good use.



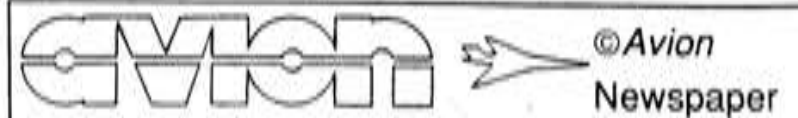
Skip Fox

I plan on attending some of the games to show my support and I wish them luck.

Joe Pilot



Joe Szarmach



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College Press Service

Playboy out!

(CPS) -- A four-day sit-in convinced St. Cloud State University officials to stop selling *Penthouse*, *Playboy* and *Playgirl* magazines at the campus bookstore.

Students and faculty members voted to ban the sale the last week of January as members of two groups the Women's Equality Group and Women for Social Justice protested for four days at the campus student center's newsstand, calling the magazines degrading to women.

Similarly, the newsstand at Michigan Tech's Memorial Union stopped selling the magazines after renovations on the building were finished last fall.

The University Co-op at the University of Texas, however, resumed selling the sex magazines in September after the co-op, fearing children and teenagers who attended various camps on campus

during the summer might see the publication, voted to ban them in June.

Moreover, only 14 people showed up at an October hearing to decide to stop selling the magazines at the University of Minnesota's West Bank Union.

In general, however, it has been a rocky year for *Playboy* on American campuses. Arizona State University women's groups denounced an appearance by magazine model Jessica Hahn at a business school fundraiser, calling it "especially offensive" to students "who consider themselves serious scholars."

The presidents of six catholic colleges last fall issued statements denouncing *Playboy's* plans to ask their female students to pose unclothed for the magazine.

Boston College President Rev. J. Donald Monan called *Playboy* "symbolic of the exploitation of American women."

Only one Providence college

woman showed up to interview when photographer David Mecey invited students in late October.

And in November, Dartmouth college officials returned a \$5,000 *Playboy* grant in the name of a Dartmouth football player. "It is the college's view that many on campus find the magazine demeaning," said spokesman Alex Huppe.

"At a time when we are actively trying to recruit women, we felt we could not keep the money."

Students get bombed

Someone is planting bombs around Oregon State University campus.

Four bombs have been discovered on and near the Corvallis campus during the last month. One of them, a pipe bomb, exploded, blasting a dumpster and a car parked nearby.

Oregon State isn't the only campus to have problems with ex-

plosives. Bomb threats have disrupted Pacific Union College, Michigan State University, Harvard and the University of California-Santa Barbara in recent weeks.

"Some one could have been killed, we're definitely investigating this since it's a life threatening incident," Corvallis City Police Lt. Dean Freedman said of the OSU bombing.

The pipe bomb tore two large holes in the metal dumpster outside the Sigma Kappa sorority on the OSU campus, and blew smaller holes in nearby parked cars.

Pipe bombs also were found in a park near the campus Jan. 8 and by maintenance crews Jan. 24 near a campus basketball court. The next day three students found one in a dorm quad.

California police, meanwhile, are searching for a man who called Pacific Union College and said he planted a bomb in a dorm Jan. 20. see CPS, page 9

Career Navigator

Thinking of trying an employment agency?

An employment agency places people in jobs for a fee. Fees can be handled differently; some charge the employer, some charge the job-hunter, and some split costs between employer and employee.

Quality of service varies. Some agencies are very good while others may not be responsive to your needs. Before registering with an agency, find out how it operates to determine that it can assist in your job search. Many fine employment agencies are completely employer-paid, which keeps the money in your pocket; we recommend you start with them.

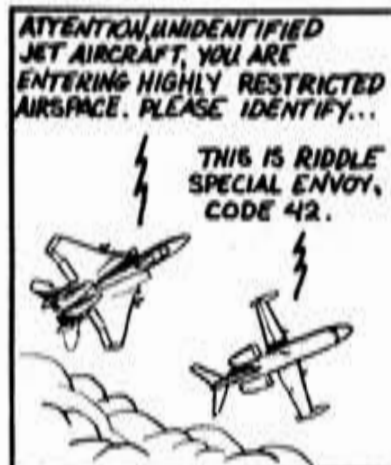
Ask if the agency handles employment opportunities of the kind in which you are interested. If you are an entry-level applicant, tell the employment agency. It is okay to contact several agencies; this expands your horizons of opportunity.

Not all job-seekers can be assisted by an agency--your job targets may not match the agencies' listings. Also, employment agencies cannot create jobs in a tight job market. However, some of you may find that an agency represents one more resource in your job-search repertoire. Remember to read any contract carefully before signing.

Of special note are employment agencies specializing in overseas employment. They can be very useful, since the cost of doing your own overseas job search can be quite high. However, in aviation the agencies frequently specialize in specific technical skills and often require some experience.

If you decide to work with these agencies, be selective and be sure of your obligations-if any.

Winston



Andy Friz

Job search seminar

If looking for a job sounds like an overwhelming mystery, attend a Job Search Seminar. This is a two-hour seminar which describes the job search process and takes away the mystery.

The next scheduled seminar is Thursday, Feb. 23 at 3 p.m. in the Common Purpose Room. Additional sessions will be conducted at a time convenient to students. Sign up for a time at the Career Center.

Job hunting etiquette

Who orders first in a restaurant? Who pays? Do you stand up to be introduced? Which fork do you use? If you have questions like these and are looking for a co-op or permanent job, you should attend "Job Hunting Etiquette" on Tuesday, March 7 at 3 p.m. in the Common Purpose Room (CPR). The presentation will be by Louise Brown, the University Protocol Officer.

Don't be afraid to attend this presentation. Employers judge your behavior. Not getting a job because you didn't stand up for an introduction would be very unfortunate. Come and learn how to make a good impression.

Focusing on the Regionals

There are a lot of Regional/Commuter Airlines out there, so you need to:

1. Focus on a selected region of the country
2. Research the companies in that region (back issues of commuter air may help) to make sure you want to fly for them.
3. Contact that company in person or in writing. Usually the chief pilot or operation officer is responsible for screening and interviewing candidates. This is not their only job, so be prepared to encounter some unsophisticated recruiting procedures.
4. Be pleasant, professional, and persistent.

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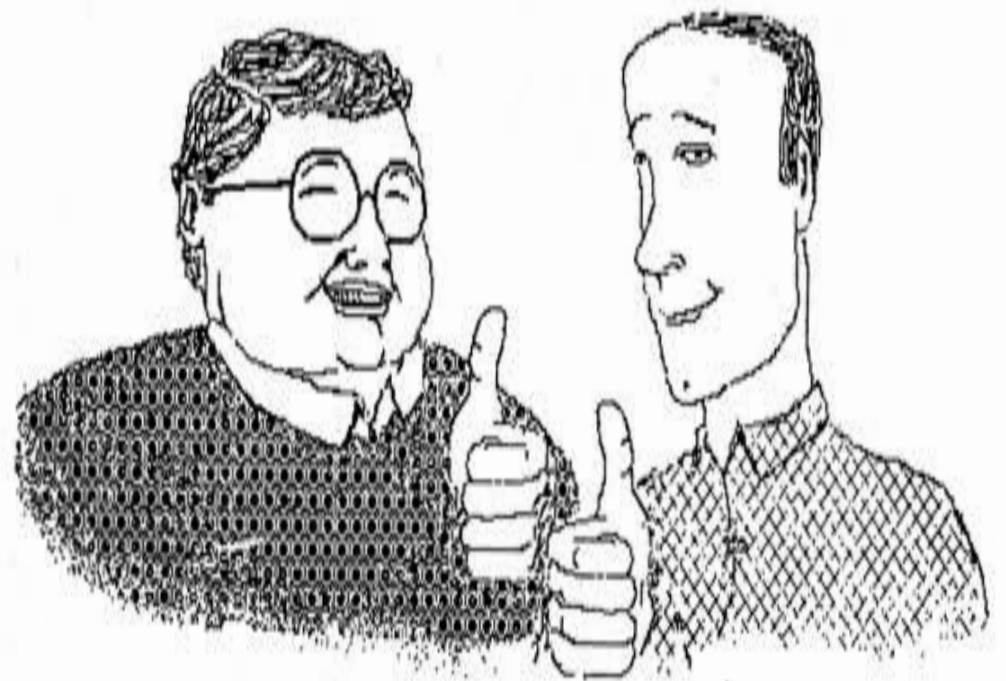
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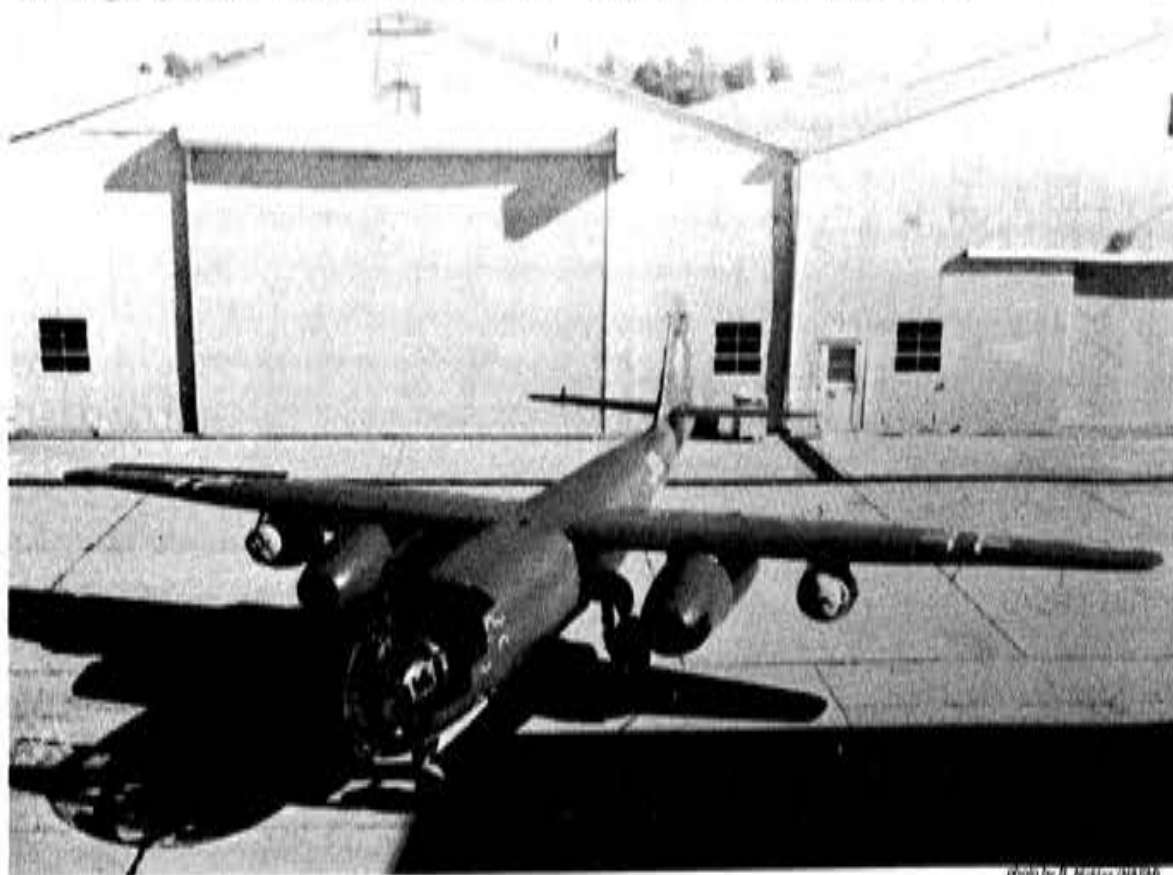
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National Air and Space Museum rolls out Arado



The Arado Ar 234B-2, single seat bomber was rolled out of the Paul E. Garber Restoration Facility, in Silver Hill Maryland. The Airplane is the latest addition to the extensive collection maintained by the National Air and Space Museum.

by Robert Watt
Aeronautica Editor

The National Air and Space Museum (NASM) recently rolled out its newest restoration projects. The following men were the primary builders and deserve credit for a job well done. Congratulations go to William Stevenson, Karl Heinzl, John Cusack, and George Genotti.

The Arado Ar 234B-2, serial number 140312 was the world's first operational jet bomber. Powered by two Junkers Jumo 004 B-1 turbojet engines, the Arado will move along at a sea level maximum speed of 438 mph and 457 mph at 6000 meters (19,686 feet).

This single seat bomber saw its action based in Norway with Kampf Gruppe 76 (bomber group). It was obtained as part of the captured material of the war and

later turned over to the museum after a storage period at Wright Field.

There were approximately 210 Arados built with both two and four engine versions. The engines used were the same that powered the Messerschmitt Me 262. One of the engines is currently on display in front of the AMT complex.

The picture taken at the museum's Paul E. Garber facility (formerly known as Silver Hill) shows the finished Arado in the camouflaged paint scheme that was duplicated to a degree as close as possible to the original.

Items to note from the picture are the Rocket Assisted Takeoff packs (RATO) on the outboard side of each engine. These liquid fueled rocket motors manufactured by Walter Rocket Motor were recovered by parachutes after exhausting their fuel supply and launching the

Arado on its mission. The parachute pack is located on the nose of the RATO.

The all glass canopy of the Arado provides entry into the cockpit from the top and located in front of the hatch is a periscope used for viewing behind the aircraft by the pilot. The white semi-circles denote hand and foot holds above the retractable step for pilot entry.

The hangers in the background house the museum's collection of aircraft under restoration. The collection currently consists of 3700 various aircraft of which 78 on display. One of the major projects under construction is the *Enola Gay*, the famous B-29 which dropped the first atomic bomb.

Again, congratulations to the fine craftsman which did a magnificent job on restoring yet another part of aviation's wondrous history.

Skyfest to host Formula Vee

by Kress Latham
Aeronautica Writer

Spectators at this year's Daytona Skyfest will have the added privilege of witnessing the opening event of the 1989 season for Formula Vees. This closed course pylon racing event is the first of its kind to be held in Florida since 1979.

The sport of closed course pylon racing had its genesis in France around the turn of the century. During the 1920's and 1930's, air racing reached its peak of popularity during what came to be known as the "Golden Age of Air Racing". The annual Thompson Trophy Air race received the same popularity in these days as the Daytona 500 possesses today.

The end of the second world war saw the evolution of Thompson Trophy races into an Unlimited class of stripped-down WWII fighter aircraft. These expensive to operate, 400 mph Unlimiteds required large race courses and offered spectators only a brief glimpse of the aircraft as they roared by, en-route to the next out of sight pylon.

It became that the pilots of these aircraft were the only ones enjoying the race and spectator enthusiasm waned. A remedy to this situation was devised in 1947 with the conception of the "Goodyear" (now known as Formula One) class of homebuilt racing planes.

The goal was to provide closely-matched, entertaining yet economical air racing, but with the escalating cost of lightplane aircraft engines, Formula One racing faced another hurdle in its metamorphosis.

Then in 1964, the air racing organization announced the rules for a new "specification" air racing class - the Formula Vees. These new homebuilt raceplanes had the distinction of utilizing converted, air cooled Volkswagen engines in an effort to minimize costs.

Other parameters were a carry-over from the Formula One aircraft. Minimum wing area, minimum weight, visibility, safety derived from the years of competition by

their predecessors.

In 1969, The Wittman V-Witt became the first Formula Vee raceplane to fly. The aircraft's creator, veteran race pilot Steve Wittman, made blueprints available for other perspective race pilots to build their own F-Vees.

A second Formula Vee design, John Monnett's Sonneri-1, first took to the skies in 1971. John initiated a business that sold prefabricated parts of the Sonneri-1. This lucrative endeavor prompted the

this premier event, while two rookie race pilots, Charlie Terry and Verne Willingham captured second and third place. Wittman went on to be victorious in every Formula Vee race he flew, concluding with his fine F-Vee win at the 1981 race in Cincinnati, Ohio.

The 1989 season opener for Formula Vee racing at Skyfest will see Rick Leonard fighting to retain his dominance of the class against a field of voracious challengers, hungry for the top position.

FORMULA VEE RULES

* 1600 cc. converted Volkswagen air cooled auto engine required. Propeller must be direct drive from crankshaft, single carburetor or injector with maximum 32 mm diameter throat, 100 octane avgas, no additives.

* Wing must be at least 75 sq. ft. in area.

* Total airframe must weigh at least 400 lbs. empty.

* Cockpit minimum size, 20 in. wide by 36 in. high.

* Wide field of visibility from cockpit.

* High structural strength. Aircraft must demonstrate 6 G's pullup before racing.

* Safety equipment. Seatbelt with Shoulder harness, roll over structure, engine retention cable, canopy external rescue release.

* Aircraft must be FAA certified, must meet all FAA requirements for homebuilt aircraft and have a least 40 hrs. flight time before racing.

* Pilot must pass proficiency test before racing and have a minimum of 500 hrs. flying experience.

construction of over 100 of these aircraft to date. The majority of the airplanes were purchased by sport flyers rather than racers, who found that the Sonneri-1 provided outstanding performance on a modest budget.

In the early 1970's, demonstration races were being flown by Formula Vees in various parts of the USA, but it wasn't until June 1977 that enough F-Vee racers came together to hold the "First Official Formula Vee Air Race" at Sturgis, Kentucky.

Steve Wittman, piloting the prototype V-Witt took the victory at

The F-Vee racers will be competing at speeds of up to 160 mph around a two mile oval racecourse with three pylon turn points at each end. Two heat races will be held each afternoon during the show. The preliminary heat on Saturday will determine the line-up for the championship race on Sunday. Up to six aircraft will be competing in each heat.

Although they will be competing for trophies and a \$6,000 purse, it may be hard to convince yourself after seeing them race, that they're not just doing all this for the fun of it.

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Gulfstream announces Gulfjet

Gulfstream Press Release

Savannah, GA, -- Gulfjet is the name Gulfstream Aerospace is registering for its new advanced-technology fanjet. Formally introduced as the SA-30, the new business jet is being developed in association with Swearingen Engineering, Williams International, and Rolls-Royce, plc.

The Announcement of the new name was made by Allen E. Paulson, chairman and CEO of Gulfstream Aerospace Corporation, a Chrysler company.

Paulson explained: "Gulfjet is a crisp, concise new name. It begins a new generation of low cost, high technology business fanjets. We feel the name will have appeal to the type person that will be buying this new aircraft."

Paulson added, the development of the prototype, by Swearingen, is proceeding according to plan and

should be flying in about eight months.

The Gulfjet is a six to eight place, twin fanjet with accommodations for a private lavatory and a refreshment center. Cruise speed of the new fanjet is expected to be over 500 mph. The range is approximately 2,500 miles. It is expected to be marketed for \$2.0 million.

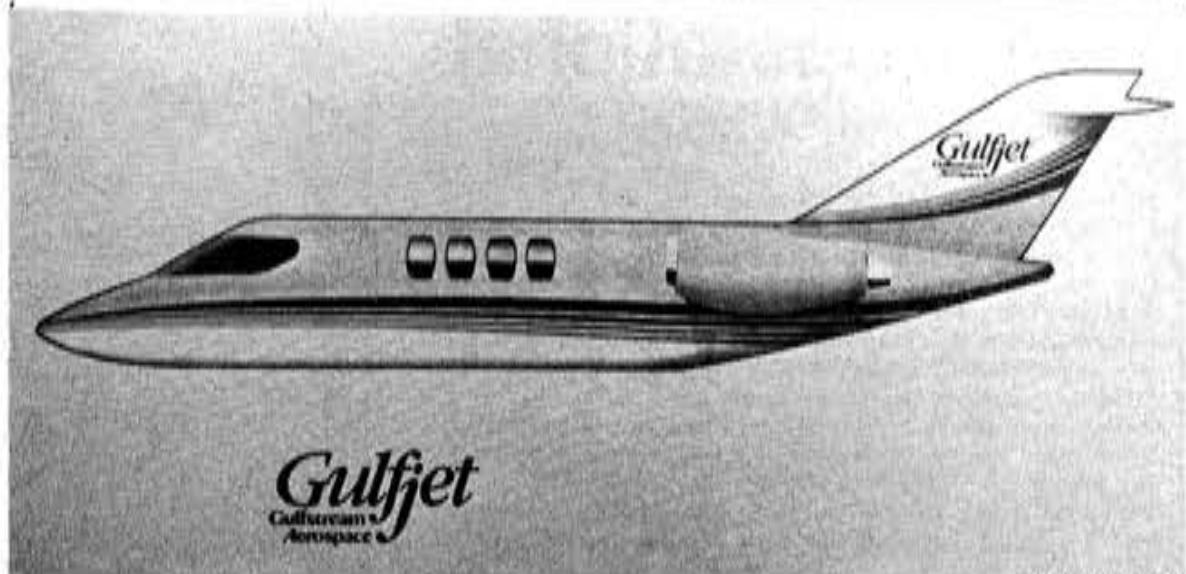
A full scale cockpit and cabin mockup of the Gulfjet will be shown for the first time at the Paris Air Show, June 8-18, 1989. It is being developed by the aeronautical design firm, Dave Ellies Industrial Design, Dallas, Texas. The Gulfjet mockup is expected to offer several cabin features which are new to this class aircraft.

Gulfstream is responsible for the marketing of the new aircraft. It has oversight responsibilities for engineering and development of the prototype. Announcement of the

manufacturing location and the production program will be part of the results of an industrial development plan expected to be complete before the end of the year.

Gulfstream Aerospace's Gulfjet is the result of four well-known firms joining forces to develop a new advanced-technology aircraft. Gulfstream Aerospace and Swearingen Engineering and Technology are developing the aircraft. Williams International and Rolls-Royce joined forces to develop the engine.

The Gulfjet development was first announced October 19, 1988, during the National Business Aircraft Association's annual meeting. Paulson made the announcement on behalf of the four firms. He stated, "We believe an initial market exists for at least 1,000 aircraft providing this kind of performance and price."



ERAU student is millionth member

by Robert Watt
Aeronautics Editor

Aircraft Owners and Pilots Association (AOPA) is celebrating a landmark year. This is AOPA's 50th anniversary and they accepted their one millionth member last month.

Embry Riddle's own Christopher Newhard, a sophomore in Aeronautical Science, was honored by AOPA president John L. Baker and the AOPA staff.

"We are especially pleased that

our millionth member is a young pilot," Baker said. "Chris is a symbol of our growth and commitment to the future of aviation."

Newhard, native of Whitehall, Pennsylvania, is a private pilot with 90 hours and is presently working on his instrument rating and looking forward to a career as an airline pilot.

Newhard was presented with a 50th anniversary watch and plaque commemorating him as the millionth member to join the association at AOPA headquarters in Fred-

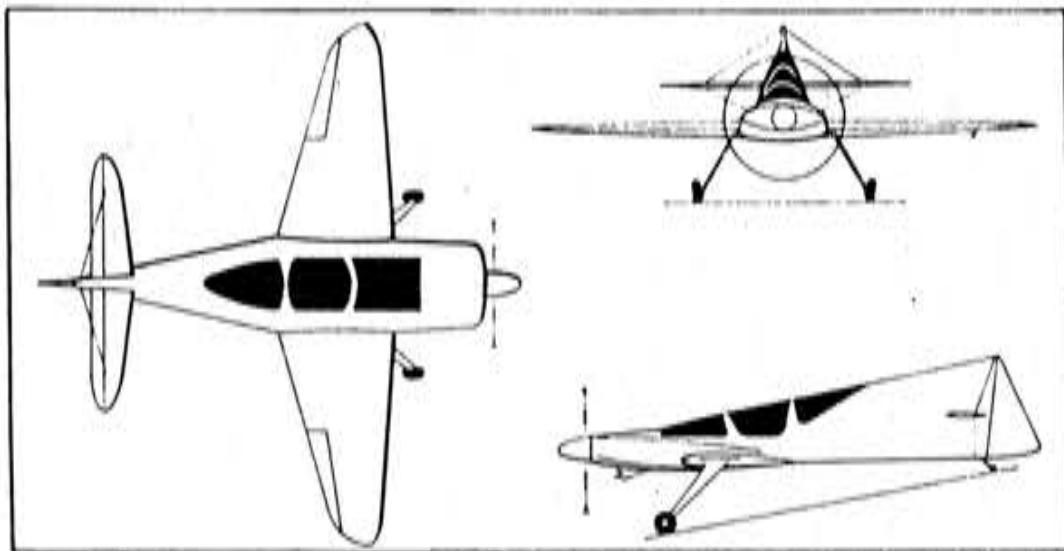
erick, Maryland.

"This is a landmark year for AOPA," said AOPA president Baker. "Not only have more than one million pilots given us their support and joined the ranks of fellow AOPA members, but we are also celebrating our 50th anniversary. We are at an all-time membership high, and we are proud of our ever-increasing effectiveness and ability to serve our members' interests at federal, state, and local levels."



Congratulations...
AOPA President John Baker awards Christopher Newhard a gold watch and wall plaque for being lucky enough to be AOPA's millionth member.

Aero Identification



The exact answer drawn of the identity of this aircraft will win a free submarine sandwich of their choice from *Sorrento's Deli*. The student publication staffs, previous winners, and their families are not eligible.

Last week's Aero ID hasn't been identified. We will try again. Good Luck!

Name _____
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I.D. Entry _____

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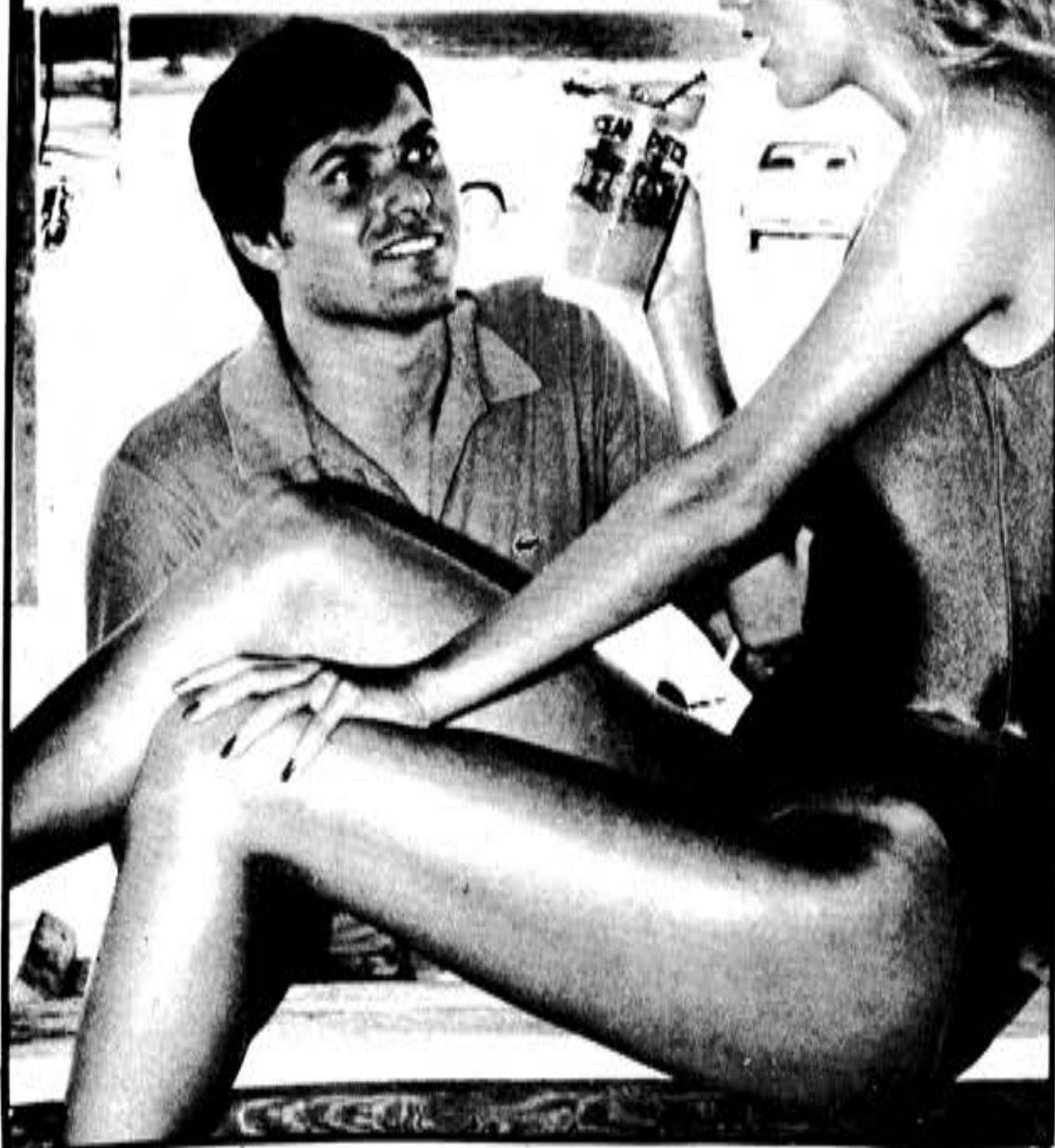
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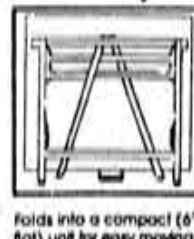
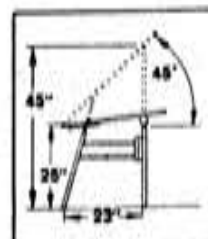
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Dish is operational

by David Fekke
Campus News Reporter

Recently a satellite dish was installed in the motorcycle parking lot by Dorm II. The dish is hooked up to the televisions in the first and second floor lounges of Dorm I and the lounge in Dorm II.

The reason behind getting the satellite dish was part of a presentation by Varum Nikor, a Resident Advisor with the Housing Department. According to Nikor since the freshman on campus can not have cars, they needed some alternate form of entertainment.

Sonja Taylor, the Housing Director, said that the satellite dish was less expensive than having cable installed. When the Housing Department originally investigated the possibility of getting cable they found

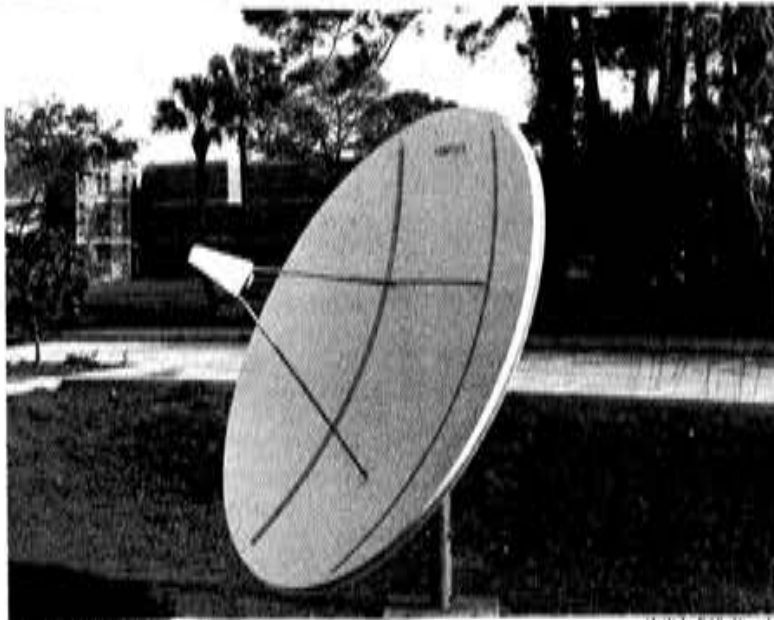
that the local cable company did not offer cable across Clyde Morris Boulevard.

The satellite dish and system comes from Advanced Satellite and Cable Systems Inc. The entire system costs about \$8000.

One of the problems in hooking up with the satellite was that many parts were backlogged for an extended period of time. The satellite receiving system was not completed until approximately two weeks ago.

The satellite dish does not pick up any movie channels, or MTV (Music Television), but it does receive ESPN (Sports Network) and CNN (Cable News Network).

One of the problems with the satellite dish is that it is not getting good reception. Every 20 seconds



What a dish... The satellite dish installed last semester was only recently connected. A lack of replacement parts was responsible for the delay.

Safety by awareness: Overwater emergencies

by Erika Foster
Flight Safety Columnist

As a pilot from the Virgin Islands I have entertained the idea that I might someday be required to ditch a plane. It is not at all a comforting thought, but as pilots who live in a coastal area, we must prepare ourselves for the possibility of an over water emergency.

Embry-Riddle policy forbids us from flying past power-off gliding distance from shore. So why worry? Because at some time we may be deceived into thinking that we are inside that range. Suppose there is a westerly wind blowing (the airport is using runway 25, you would presume) and you plan to practice maneuvers along the coast. If this doesn't cause concern, you are easily deceived. That wind will

be pushing you off shore! The normal power-off gliding distance for an easterly wind will leave you in the drink if you lose your engine.

Another common case is the standard Bahamas trip putting you well out of gliding distance. The fact is that the island's terrain is too steep for landing except for the airport.

There are a few main points to make about ditching in general. Although you don't have a choice as to the kind of aircraft you have to ditch, it helps to know how your aircraft is going to behave.

The wings add buoyancy therefore a low-wing aircraft will settle on the surface easier and sink slowly. A high-wing aircraft will sink quickly until the wings reach

see SAFETY, page 16

Research on Borescope effectiveness to commence

by Peter Vosbury
Professor, AMT

In early March, the AMT Department will start conducting research to evaluate the effectiveness of different types of borescopes used in the internal inspection of aircraft gas turbine engines.

This research will be conducted by the AMT Department's Turbine Engine Laboratory and supported by two industry participants, Olympus Corporation and Machida Corporation. Olympus and Machida will be providing state of the art rigid optic scopes and fiberoptic scopes, along with video cameras and monitors.

In late February, engineers from these two companies will come to Embry-Riddle to deliver the equipment and demonstrate its use to the AMT Department's faculty.

The borescope equipment will be used to internally inspect the department's new Pratt and Whitney PT-6-20 turboprop engine, the Westinghouse turbojet and Lycoming turboshaft engines. Comparisons will be made between the different types of systems (rigid scopes, fiberoptic scopes with eyepieces, fiberoptic scopes with monitors) and their effectiveness under various conditions determined.

The AMT Department is looking for students who would be interested in participating in this research. To qualify, an applicant must have completed the powerplant phase of AMT and the AMT Turbine Engine course. Applicant selection will be based on proven performance in the AMT curriculum.

Each selected applicant will spend approximately five hours using and evaluating the equipment. This is an opportunity to get experience using state of the art equipment, so don't let it pass by! If you are interested, call extension 6765 or come by Office P-103.



Congressman Craig T. James host Embry-Riddle students at his recent open house.

Congressman hosts opens house in new Daytona home

by Roger Corzine
Senate President

On Wednesday Feb. 15 Congressman James held an open house at his new Daytona Beach Office located on Seabreeze Avenue. The Congressman was on hand to discuss questions concerning his constituents.

Roger Corzine and David Rhine, both members of the Embry Riddle Model U.S. Senate, pressed him on the issue of Financial Aid.

The issue in question was how come the ACT Student Financial

Aid Services contains a loop in which students who are independent are declared dependant. Question 18 in the packet asks "Did you have total resources of \$4,000 or more, not including parents' support in either 1985 or 1986?" If you answer "no" to either year, you are declared a dependant student.

What happens to students who paid their own tuition and live without parental support in 1987 and 1988? These students are categorized as dependants of their parents

and could be dropped from the Pell Grant Search because their parents make too much money. Congressman James and his advisors said that they had never come across this problem but they promised they would look into it.

Congressman James said that he was in full support of Federal Student Aid. When the Federal Financial Aid Packet goes to the House Floor some changes might be made to distribute Financial Aid more fairly.

see JAMES, page 9

Student health services fighting mumps outbreak

by Martin Kammerman
Campus News Editor

"I've heard there's a mumps epidemic," is a comment which has been heard around campus for the past two weeks.

Students and employees of Dorm I received notices requiring them to report to the Health Services department when it was found that two resident advisors had the mumps.

Maureen Bridger, the Director of Health Services, is required to report all cases of mumps on campus to the Volusia County Health Department which conducts an investigation of the cases.

Who is at risk of catching the mumps? Many Americans have been vaccinated against the mumps, but many do not have full immunization. Between 1963 and 1968,

doctors used a "dead" mumps virus to inoculate their patients. After 1968, a "live" virus was used which was found to be more effective at preventing mumps.

If you were immunized for mumps between 1963 and 1968 you may be at risk.

In the past few years, mumps has been an ever increasing problem among teens and young adults. There were 7,790 cases in 1986, and over 12,000 cases in 1987 reported.

It has been found that students under 20 years were twice as likely to get mumps as students over 20 years of age.

There can be serious complications from the mumps disease. Males can get orchitis, an infection of the testicles, as well as meningoencephalitis and pancreatitis.

Sterility in men is a serious problem, as well as complications in early pregnancy for women.

"I feel that it's very important that the University have an enforced policy on immunizations," says Bridger. She also cites a shortage of nurses and computers as a reason for the lack of such a policy here.

Anyone who is interested in getting a mumps vaccination can go to the Health Services Department, where there are 240 doses of live vaccine presently on hand.

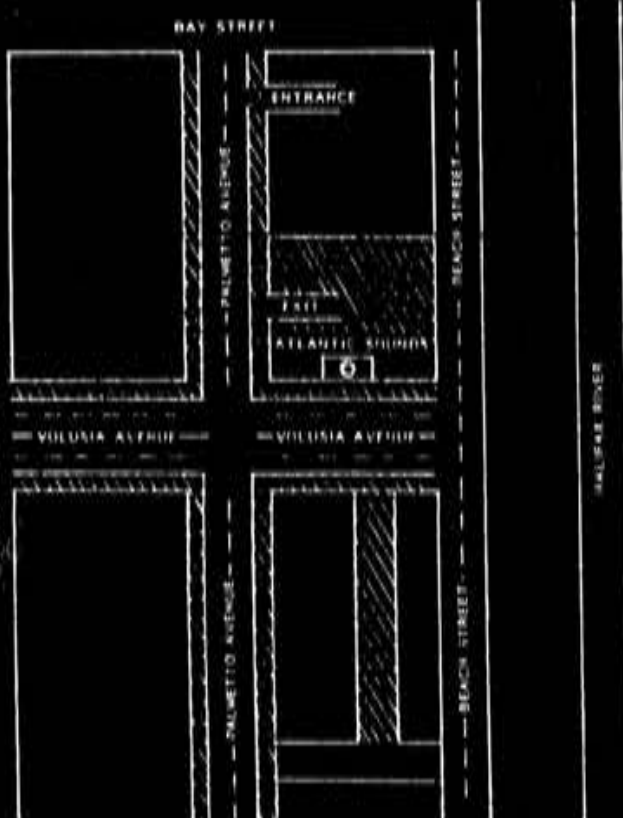
Bridger recommends that anyone who is at risk should take steps to prevent getting mumps. Mumps is a "preventable illness," and "people ought to be careful" not to put themselves at risk.

If you're not sure, contact the Health Service Department located in the U.C., or call 239-6036.

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Fri	7:15 a.m.-6 p.m.
Sat	9:00 a.m.-6 p.m.
Sun	1:00 p.m.-10 p.m.

Computer lab hours

Mon-Thurs	6:00 a.m.-midnight
Fri	6:00 a.m.-6:00 p.m.
Sat	9:00 a.m.-7:00 p.m.
Sun	2:00 p.m.-midnight

Avion needs news/sports writers

The *Avion* is looking for news and sports writers. The Campus News section covers news stories that affect the Embry-Riddle Campus. Sports coverage may include campus varsity or intramural sports as well as national sports of interest to our students. If you have some free time, and would like to do some work for us contact Martin at ext. 6049 or stop by the *Avion* office on the second floor of the U.C. above the cafeteria.

MA/PS seminar series

Feb 23 Dr. Mohammad Khavanin
Mixed Monotony for Solving Differential Equations
 Mar 9 Dr. Zoubir Benzaid
Control Theory of Differential Equations
 Mar 30 Dr. Selwyn Hollis
Problems in Reaction Diffusion Systems
 Apr 13 Dr. L. Narayanaswami
Solid Propellant Rocket Research

All seminars are presently scheduled at the Riddle Theater at 1:30 p.m. in A Building. Students are welcome.

The seminar originally scheduled for Feb 23, *Becoming a TEXpert: Use of Tex Software*, by Dr. Elliott Jacobs will be rescheduled.

Aeronautical studies students

All Aeronautical Studies students who have not declared an Area of Concentration must do so prior to Feb 28. To declare an Area of Concentration, see the Program Chairman in G-Building, Room 107.

Income tax help

If you feel that you need help in preparing your 1989 tax return, go to A building, Room A-117 any Tuesday night between 5:30 p.m. to 8:30 p.m. until April 15. It's a free service provided by VITA (Volunteer Income Tax Assistance).

Poetry contest

Students talented in poetry can enter a contest that has \$11,000 in prizes available. A Grand Prize of \$1,000 and First Prize of \$500 plus many other cash awards will be given by the American Poetry Association.

"Students are often winners in our contests, and we would like to see more students' poetry," said Robert Nelson, Publisher for the Association. "We want to find undiscovered poets and give them the recognition they deserve. This year our winners will be published and publicized to the utmost of our power."

Poets may enter the contest by sending up to six poems, each no more than 20 lines, name and address on each page, to:

American Poetry Association
 Dept. CT-22
 250 A Potrero Street
 P.O. Box 1803
 Santa Cruz, Ca 95061-1803

Each poem is also considered for publication in the American Poetry Anthology, a leading collection of contemporary verse. The contest is open until June 30.

Kick a habit

Learn how to rid yourself of troublesome habits such as smoking, overeating, phobias, tardiness, procrastination, low motivation, nail biting, and anxiety. This experiential group will meet weekly for four, two hour sessions, during the weeks of Feb 20 to Mar 17.

Learn self defense

Learn defense against personal assault and property loss through informational and physical demonstration. Information will be valuable for men and women during the high risk time of Spring Break.

Date: Tues, Mar 7
 Time: 8:00 p.m. - 9:15 p.m.
 Place: Dorm 1 lobby

Faculty Regalia

The University Bookstore cashiers will be accepting orders for cap, gown, and hood rentals for April's graduation, from Feb. 27 thru Mar. 10 weekdays 8:30 a.m. to 4:30 p.m.

Coaches Corner

Listen to "Coaches Corner" with ERAU head baseball coach John Filor, weekdays at 3:45 p.m. on WROD. "Coaches Corner" will be presented daily on WROD through April 7.

April Graduates

April Graduation applications are being accepted in the Registration and Records office for those students anticipating April '89 degree completion (both academic and flight). We must receive a completed application in order to place your name on our Diploma Order. The deadline for accepting these applications is Feb. 24. Any student whose application, whether undergraduate or Masters, is received after Feb. 24 will not have his/her diploma ordered to be received by April Commencement nor will his/her name appear in the Commencement program.

Special note for undergraduate students: Having registered for GR 401.50 is not enough! You must complete all the necessary paperwork. Any questions or problems, please stop by the new Registration and Records Office located on the second floor of the U.C. addition.

Summer degree recipients

Students who anticipate total degree completion between April 29, 1989 and Aug. 19, 1989 may apply for permission to participate in the April Commencement ceremony. Those who elect this should be aware that they forfeit publication of graduation honors and eligibility for consideration for the Chancellor's Award. They should also be aware that having designated April as their choice, they will not be permitted to participate in a second ceremony if they fail to complete degree requirements during the summer.

Students desiring to participate in the April ceremony must submit a formal graduation application to the Records and Registration office located on the second floor of the U.C. addition no later than Feb. 24 so that a preliminary graduation evaluation may be accomplished.

Students who anticipate degree completion during the summer who wish to participate in the Dec. 16, 1989 ceremony should apply for graduation at the Office of Records and Registration prior to June 16, 1989.

Flight Students

On Feb. 23 the Student Flight Advisory Board will be holding an open forum discussing the Flight Department. If you wish to attend, the meeting will be held at 7:30 p.m. in the Flight Planning Room. All are welcome.

SGA elections

Applications are now being accepted for Student Government President and Vice-President, Student Representative Board, Student Finance Board and Chief Justice positions. All applications can be picked up in the SGA office and must be turned in by Mar 3. All positions are for the 1989-1990 school year.

Spring F.L.A.S.H.

F.L.A.S.H. (For Leisure Student And Health Fair) Health testing, body composition analysis, computerized rowing machine contest and information display. Get checked out Mar 7 - 8 from 11 a.m. until 2 p.m. in the U.C.

Dream interpretation

In the first of a two part series, Dr. Norman Brown, ERAU psychology instructor, will present the theory and practice of dream interpretation. Questions from the audience regarding their own dreams will be entertained. Dream Interpretation will be held Thurs March 9 from 1:30 p.m. until 2:25 p.m. in Room A-109.

Free tutors available

Many departments on campus provide tutors free of charge to Embry-Riddle students. Some of the departments offering such services are:

Math, Physics, Chemistry: Weekdays from 10:30 a.m. to 4:30 p.m. in Room A-106.

Accounting: MWF from 2:30 p.m. to 4:30 p.m. and TR from 2:00 p.m. to 5:00 p.m.

Writing: Get help with written assignments in any course offered. Writing Lab Room A-106.



No. 12 came from the back of the pack to win the first event of the IROC season. The no. 12 car was driven by Rusty Wallace.



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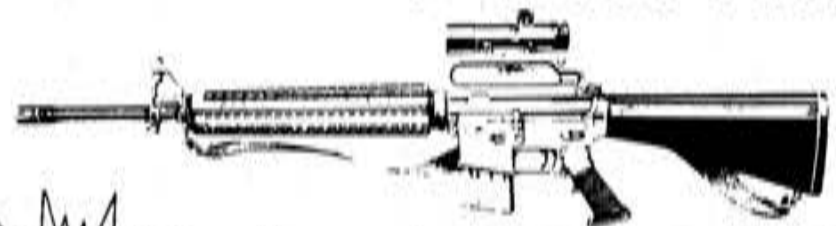
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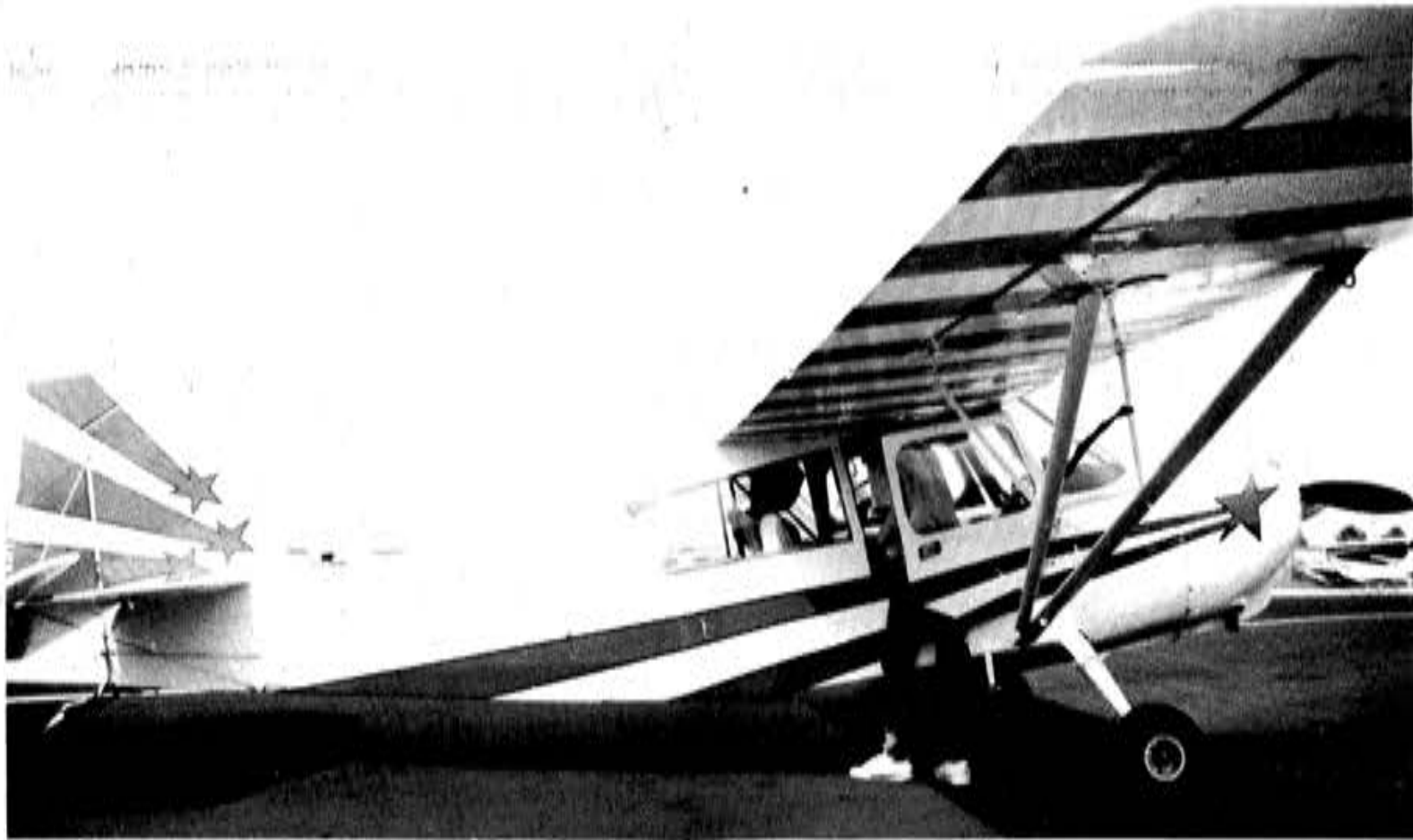
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CPS

(continued from page 2)

Campus officials evacuated the dorm and searched the building, but found no explosives.

The caller phoned PUC the next day to report another bomb and to threaten two students he knew there. The suspect, whose name has not been released reportedly has threatened other schools, too.

PUC officials say the man's threats aren't serious, although they have beefed up campus security. "At this point we feel that the people at PUC are safe," said Vice President for Student Services John Collins.

Two bomb threats at Michigan State in late January prompted officials there to evacuate the main library, while Cambridge Mass., police emptied a Harvard classroom building to search for a bomb Jan. 17. No bombs were found.

And at a California-Santa Barbara, officials evacuated a campus housing complex office and laundry room after an object suspected to be a bomb was discovered in a mailbox Jan. 19.

The "bomb," however, turned out to be several nine-volt batteries taped together.

GRIFFITH

(continued from page 1)

When asked about life away from Embry-Riddle, Griffith replied that he and his wife, Shelia, enjoy spending time with daughter, Kelly, 5. "Kelly loves animals so we often go to the zoo and Busch Gardens. There's a lot to take a child to in the Central Florida area."

As for a personal hobby, when not working on his 1961 Thunderbird, Griffith enjoys his rather large record collection (classic rock and roll). "I have almost 1000 in the collection and just recently got them cataloged on the computer."

His classic rock and roll collection includes "the very first record

the Beatles ever put out. It's on the Veejay label (before they started recording on Capitol), and the only record ever recorded by Blind Faith, which was banned because of a suggestive pose on the cover." He has several imported albums which were not available in the United States. When asked which album is the most rare, Griffith explained, "I have the Beatles' White Album pressed on white vinyl."

Randy Griffith has seen quite a few changes at Embry-Riddle as a student and faculty member. Students wishing to gripe about the facilities or the lack of girls should go

talk to him. Griffith is sure to say, "Let me tell you about when there were only three girls on campus..." (AAUP) and is course monitor for Basic Digital (EL 220) and Basic Radiotelephone (EL 208).

Griffith has seen quite a change at Embry-Riddle, having watched the Avionics program develop from a Certificate of Completion in Avionics to Aviation Technology degree to Avionics degree to Avionics Engineering Technology degree all in just over a decade.

The Avionics Technology Department is also quite proud to have the only program in the country with

a student operated Avionics repair station. "When there is an avionics problem in a Riddle aircraft, our students remove the instrument, troubleshoot, repair and perform all the paperwork. The job is then checked by me or John Brannon and then the instrument is returned to the aircraft."

Students in the Avionics program have recently formed an Avionics Club. They have taken a trip to Cape Canaveral and will soon tour General Electric. Concerning the Avionics Club, Griffith said, "It's great! They'll get to see that there is life outside of class."

JAMES

(continued from page 6)

One other issue brought up that morning concerned the Congressional pay raises. Congressman James said that he had run for the office knowing what his salary would be, and thought it unfair to

support a raise. He also noted that he thought trading off honorariums for the raise wasn't right. He agreed with Ralph Nader and said that honorariums shouldn't be allowed in Congress.



BASEBALL

(continued from page 1)

The Eagles Baseball team is a hard working dedicated group of students who are showing their pride in Embry-Riddle. Future games are sure to be exciting with 21 additional games scheduled before April 4.

Upcoming games for the Eagles Baseball Team include Brevard Community College (away - 1 p.m. on Saturday), Trevecca/ Nazarene (away - 4 p.m. on Sunday) and Brevard Community College (home - 7 p.m. next Wednesday). Contact the Varsity Sports Office for the exact location of the away games.

AIAA hosts Engineers Week

by Phyllis A. Salmons
Copy Editor

Engineers at schools around the United States are organizing events this week to let the public know what is happening in the engineering industry. National Engineers Week is being sponsored at Embry-Riddle by the campus chapter of the American Institute of Aeronautics and Astronautics (AIAA).

Senior AE students Eric Edgerton and John Hilten made a presentation to about 55 students in Aerospace Technology classes at Spruce Creek High School on Friday, Feb. 17.

Edgerton and Hilten spoke about basic aerodynamics of flight and demonstrated a portable smoke tunnel. Hilten made a presentation on preliminary aircraft design and Edgerton followed with advanced detail design.

Approximately 30 Spruce Creek students are expected tomorrow to tour the Materials Lab, Wind tunnel, and Computer Aided Design (CAD) Lab. Friday a similar group from Seabreeze high school will have the tour.

Tomorrow evening there will be a dinner meeting featuring Roy LoPresti of Piper/LoPresti Aircraft Engineering. LoPresti will speak on "The Current State of General Aviation and Piper's Role in the Upcoming Years." Dinner will be held at the Indigo Lakes Banquet Center.

Perhaps the highlight of National Engineers Week for Embry-Riddle students will be the Glider Contest which was organized by AIAA member Call Weller. The contest will be held this Saturday in the University Center. Contestants may enter the contest in two categories, balsa and paper, and each category will have winners in two subcategories: range and endurance. The balsa gliders will be launched from the second floor of the U.C. and the paper gliders will launch from the flight deck.

Balsa gliders must be made totally from balsa wood (with coins and paper clips for balance) and have a maximum wing span of 20 inches. Paper gliders must be made only of paper and scotch tape (with coins or paper clips) and have

The Glider Contest will be held from 10 a.m. to noon on Saturday. The entry fee is \$1 and there is no pre-registration required.

Eric Edgerton, AIAA Vice President said, "National Engineers Week is a nationwide event and this is one of the first years that we at Embry-Riddle have been seriously involved in it." Edgerton and the other AIAA officers Mark Ehl (President), John Hilten (Secretary) and Tom Kalkman (Treasurer) commend all the members of AIAA for their loyalty and participation in this project.

The ERAU Chapter of AIAA is doing an excellent job promoting the Aeronautical and Aerospace Engineering programs at ERAU during National Engineers Week.



Smokin...

ERAU senior Eric Edgerton demonstrates a smoke tunnel to Aerospace Technology students last Friday at Spruce Creek High School

DISH

(continued from page 6)

the screen clarity diminishes and jumps.

Advanced Satellite and Cable Systems said the interference is caused by a radio signal from the weather radar at Eagle Aviation.

Eagle Aviation said that they are not responsible for the interference. However, one of their field engineers agreed to work on the radar with a technician from Advanced Satellite and Cable Systems.

Rob Brown, a resident of Dorm I said "It would be great if it didn't do the 'wild thing' every 20 seconds." A resident of Dorm II, Andy Franklin, said, "I think it is a good idea, but they shouldn't limit it to just the lounges."

In the future the Housing Department has plans to temporarily add a movie channel. They will test the movie channel for a month to see what the residents think.

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■ Applications due March 3
■ Elections held March 15

Must have been at least part time student on this campus holding a minimum of 6 credit hours for at least 1 full semester prior to running for office

Must not have previously held an official position within any of the SGA divisions whereby he/she was forced to resign or impeached by the executive board of that division

Transcript of grades must be attached to Petition upon submittal

Must have a 2.5 cumulative grade point average or better

Must currently attend this university, holding a minimum of 6 credit hours

Must attest in writing to the intent of remaining an undergraduate student with no less than 6 credit hours through his/her term in office to include summer A and B, Fall, and Spring

*Must be in good financial standing with the University



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- Chief Justice



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*P185/75R-14	29.02
*P195/75R-14	29.48
*P205/75R-14/15	31.95
*P215/75R-14/15	33.95
*P225/75R-15	35.95
*P205/65R-15	49.95

SIZE	SALE PRICE
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195-205/70R-14	45.29	195/60HR14 & 15	59.35
215/70R14 & 15	50.52	215/60HR14 & 15	64.95
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Precision Flight

by Michelle M. Boullianne
PFDT Representative

"Pennies from the Heart" turned out successful for the Flight Team and the All Children's Park Program, thanks to everyone's pennies and the members who attended the fund raiser. The team will also participate in the remaining activities concerning the All Children's Park.

The races kept the team busy over the exhausting and fast paced past weekend. We had some members who worked in the paddocks at the race track. Others worked at Daytona Beach Aviation helping to set up barricades and directing pilots, passengers, and civilians from hazardous areas on the ramp.

Also last week some members were involved in the AMT Taxiing program for students.

On Feb. 25, during ERAU's Open House, team members will help with the incoming visitors to the campus. At later dates members will be doing a presentation at Highland Elementary School for the students. The upcoming United Way project will begin in March.

Thanks to Wayne McMaster for his Safety Briefing on a pilot's field selection during an engine failure. He discussed how some fields are deceiving, the danger of barbed wire fences, how cows usually face downwind, and other safety factors. Also, congratulations to Ruth Rigney on her engagement!

Competition members - keep updated on practices!

Avionics Club

by club representative

Avionics club members conducted a trip to the Kennedy Space Center last Saturday Feb. 11 to supplement the club's recreational and educational activities. Throughout the month, the club has participated in both intramural softball and basketball and is anticipating the volleyball season. Future plans for the Avionics club include a trip to the Harry Dones Aircraft Restoration facility in New Smyrna on Feb. 28 as well as an unscheduled trip to General Electric.

Alpha Eta Rho

by David Anderson
Club writer

First of all, the fraternity and I would like to congratulate the pledges for the right choice. This commitment will never be forgotten, so make the best of it and move to the suggested directions. To all those involved thanks for working at the track; we prospered! Also, we must not forget

our little, fat buddy who: the set (orth objective Week '89'. Of course was the right hand mar the left.

Last, but not least, we must go out to the E baseball team for winn game against Washingc

CLUBS POLICY

- ➔ All articles must either be type-written, double-spaced or on disk (unformatted in Word Star or Microsoft Word).
- ➔ Deadlines for submission of all club material is Wed., 5 p.m., one week prior to publication.
- ➔ Photos may be submitted with club articles.
- ➔ All submitted material becomes the property of the Avion with the exception of disks.
- ➔ The Avion reserves the right to edit all submitted copy.
- ➔ For more information, stop by or call the Avion office at (904) 239-6049.

Lacrosse Club

by Darren Page
Club President

After a week of hearing comments on my last article, I felt a response is necessary. I didn't know it would cause such emotions. If I have angered anyone I'm sorry, but my last article still holds true.

It is clear that the Lacrosse Team is not being significantly supported by the varsity sports department, but that's not to say that no support has been given. The varsity sports department does all they can for lacrosse. It's those in Spruance Hall who don't support the lacrosse team.

Since 1979, the Lacrosse Club of Embry-Riddle has been mistreated. Because we are a team, we do not qualify for club benefits. Those in Spruance Hall don't know what to do with us, so now we are in limbo: not a varsity team, and not a true club. Now we are left underfunded, under-equipped, and on low morale. We are a team which has needs. Please let us tell you what we need before you tell us what we can have.

Delta Chi

by Jeff Hornyak
Club writer

After a one week absence Delta Chi has returned with all the news that's fit to print. What a fun filled weekend at the races it's time to look forward. Haus is working to have a packed social calendar for the remainder of the spring term. He can't do it all himself, so if you can, help him out.

To those who worked at the races, a job well done. The totals aren't in yet but we'll keep you posted. If by

chance anybody didn't work, you can run but you can't hide.

I hope the pledges are well prepared for the first test. If you know the material just relax, if you don't learn it. Also remember to keep an open mind. This is learning experience to help you become a good brother.

Fence building should be starting soon. This operation will require some bodies. With some good weather, muscle and a little help from Auggie it should be easy.

Army ROTC

by C/Maj Jim MacKay
P.R. Officer

With pride and precision, a dedicated group of Army ROTC cadets appear frequently at all types of local events. This elite group is called the Color Guard and their mission is to present the state and national colors in a dignified and proper manner. Many of the events in which they participate, including last weekend's Daytona 500, are nationally televised. This gives positive national exposure not only to Army ROTC, but to Embry-Riddle as well.

Under the able command of C/CPT Lily Martinez, the Color Guard team members practice long hours so that their public appearances are "picture perfect". Because they are so good at making the complex flag handling procedures and drill steps look easy,

few people realize how time consuming the job is to prepare for an event.

The preparation for an event begins weeks in advance. Regular weekly rehearsals are conducted. During the rehearsals, the drill movements and commands are practiced until they become second nature.

Leadership positions among the cadets are rotated frequently, so all of the members are familiar with each job and its responsibilities. Military bearing, an impeccable personal appearance, and a positive mental attitude are vital qualities for all Color Guard members.

Being a part of the Color Guard fosters a sense of camaraderie and esprit-de-corps among the members. A deep sense of pride accrues to each member after a successful execution of a Color Guard detail. As part of the

very successful Embry-Riddle Army ROTC Color Guard, the members build a sense of accomplishment and team work. They work the long hours willingly because they know that they represent and bring great credit upon themselves, the university, and the United States Army.

The entire Army ROTC Eagle Battalion is very proud of the 1988-89 color guard and we would like to recognize and thank each one. The current team includes: Cadets Stelzig, Burns, Chapman, Hammatt, Kineally, Lorinz, Martin, Midora, Nowinski, O'Connor, Ortiz, Schmidt, Self, Sikes, Sanev, D. Smith, H. Smith, Valente, Von Vreckin, Weishaak, White, and Zadrozny. Keep up your outstanding efforts!

Leadership Excellence Starts Here!

Sigma Chi

by James A Ahrens
Chapter Editor

With the race week behind us, we can take a quick break before bike week his town. Most of us will still be here in Daytona to enjoy the fun and sun. But there is a small band of sigs heading north for four days of snow

and ski bunnies at Snowshoe. We wish you well in your journey and remember: Don't eat yellow snow!

Well we are almost halfway thru the semester and those midterm tests are just around the corner. Also with spring break coming up, now is the time to suck it up and get those grades.

The Alpha Sigma pledge class is just getting started under the leadership of their magistrate Howard Hamilton. In the next several weeks they will be learning about Sigma Chi, raising money, and doing projects for the community, school, and the house.

Vets Club


by Glen Conway
Club writer

Last week was the Daytona 500, and the Veterans Association was out there working hard. The Vets Club extends its gratitude to everyone who sacrificed their time to come out and lend a hand.


The softball team is off to a good start, 3-0, with a recent victory over a unidentified team. It's only the beginning, there are many more games to be played, so let's see everyone come out and cheer the team on. Practices are

usually Wednesdays and Fridays. Notices will be posted on the Vets club display case opposite the old bookstore, so keep on the lookout.

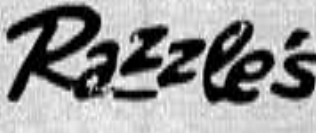

Another reminder, the Vets Club is open to all Veterans on campus. Anyone interested can come to any of the meetings, notices are also posted on the display case. It was good to see all the new faces at last week's meeting. Once again, the Vets welcome new faces to come out and join the club.



18 and over WELCOME You must be 21 to drink



18 and over WELCOME You must be 21 to drink

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TUESDAY - MINI SKIRT CONTEST - \$200.00 CASH PRIZE. FREE DRINKS & FREE RAZZLE MUGS from 7-9 p.m. 2 for 1 DRINKS From 9-Closing

WEDNESDAY - WET-TSHIRT CONTEST - \$200.00 CASH PRIZE from Caribe Suncare Products. FREE DRINKS & Razzle Mugs from 7-9 p.m. 2 for 1 Drinks from 9 - Closing

THURSDAY - LEGS CONTEST - \$200.00 CASH PRIZE from Caribe Suncare Products. FREE DRINKS & Razzle Mugs from 7-9 p.m. 2 for 1 Drinks from 9 - Closing

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SUNDAY - JACQUES MORET - Best "Female" Body Suit Contest \$175.00 CASH PRIZE, \$1200.00 in Body Suits to be Giving Away. FREE DRINKS & Razzle Mugs from 7-9 p.m. 2 for 1 Drinks from 9-Closing

RAZZLES SEABREEZE & A1A NEXT TO THE OYSTER PUB

Final test conducted on shuttle booster

by Michael Fried
Space Technology Editor

The final full duration firing of a redesigned space shuttle solid rocket motor was completed on Jan 20, concluding a three year redesign program. Preliminary data shows that the qualification motor, QM-8, performed successfully.

The propellant in the motor was chilled down to 40F in Morton Thiokol's T-97 test facility in Utah. The 40 degree temperature is the lowest allowed during a shuttle launch. The motor will be disassembled in the upcoming weeks for a more detailed analysis.

The T-97 Large Motor Test Facility was constructed to support the Shuttle solid rocket motor redesign program. The construction began on Nov 5 and was completed in Oct 1987.

NASA provided approximately \$15 million while Morton Thiokol provided \$7 million for the construction of the test facility.

The facility contains a total of 7,000 cubic yards of concrete, with 308 tons of reinforcing steel and an additional 230 tons of such things as steel plates and rails. Overall, the site measures about 550 by 350ft.

A 155 by 30 by 30ft moveable conditioning building has the capacity of heating an entire test motor to as much as 110 degrees or cooling it to as low as 20 degrees.

The test stand itself can withstand a thrust load of 4 million pounds, and can impart side reaction loads of 400,000 pounds during test firing to simulate aspects of flight dynamics.

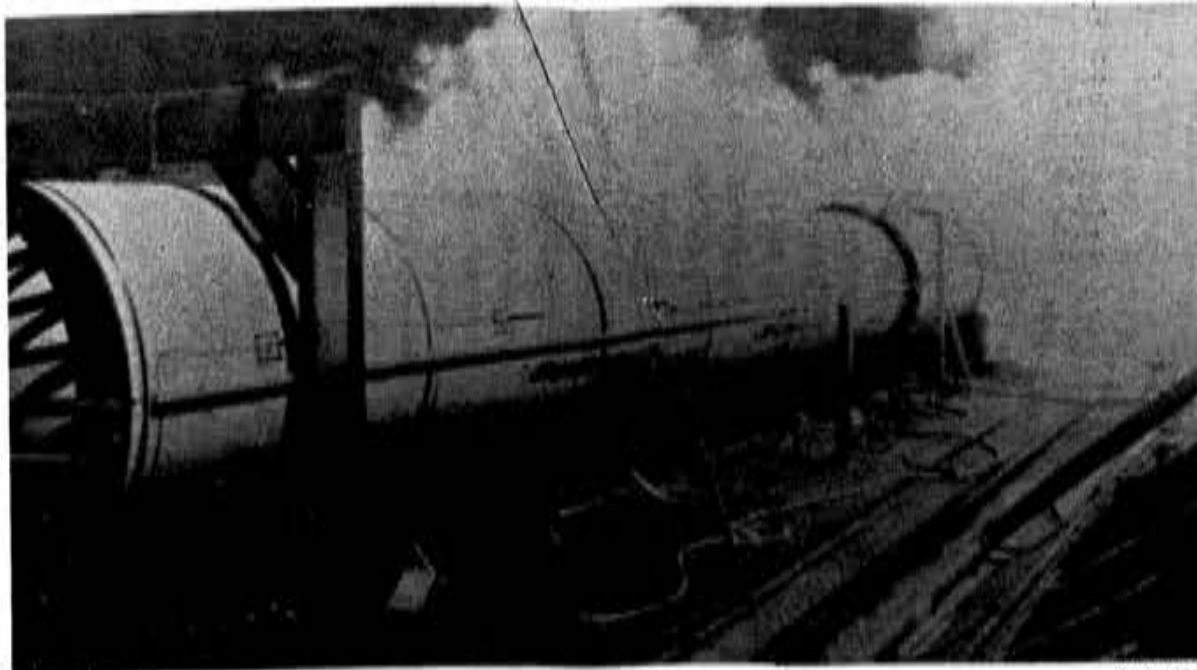


Photo by NASA

Fired up...

A space shuttle solid rocket booster undergoes a test firing at Morton Thiokol's Utah plant. This test was similar to the QM-8 motor test fired on Jan. 20. The booster firing concludes a three year redesign test effort.

To measure motor performance, a total of 1,216 channels of instrumentation is included in the site. Two instrumentation buildings contain computer-

controlled instruments and recording equipment which monitor test motor during firing. In addition, remotely operated television record motor functions.

Florida to make bid on commercial spaceport

by Alan McAdams
Space Technology Reporter

For the first time on Feb. 13 Florida Governor Bob Martinez announced that he intends to ask the Florida legislature for a \$10-million appropriation to help support the creation of a spaceport Authority who's ultimate goal will be to establish the nation's first commercial spaceport within the state of Florida.

Even though the announcement was no great surprise to many, it was met with great enthusiasm by state and aerospace industry officials.

The announcement was made to send a clear message to the U.S. Secretary of Transportation Samuel Shinne. His department is conducting an evaluation of possible locations for just such a facility somewhere in the U.S.

This development in U.S. space utilization was instigated by former President Reagan's policy that commercial industry get involved in the launching of its own space payloads. The space shuttle now is no longer allowed to lift commercial payloads, only military and scientific. As a result of this policy a void has been created in the U.S. space market for a commercial lifting capability.

Other countries such as France and the Soviet Union have been actively attempting to recruit U.S. companies to their launch capabilities. In addition, Japan and China are rapidly catching up and will soon be commercially launching their own payloads, with the help of governmental subsidies, to the displeasure of most of the rest of the world's space agencies who have to go it alone.

The primary goal of Governor Martinez's plan for Florida is to establish a commercial facility that will be able to launch light to medium payload vehicles. This plan will help give the U.S. the most modern commercial launch facilities available and will expand the nation's space capabilities beyond what has previously been known.

At this time, the primary concept for the location of the facility is on Kennedy Space Center, but in the event of incompatibilities with NASA or the U. S. Air Force, Shiloh is being considered as an alternate site.

As for the hope that the Federal government will assist in such a commercial venture, Transportation Secretary Samuel Skinner has indicated that Florida and Virginia are being considered, but that the location that is best prepared for such a venture would probably be the most likely candidate for the facility. According to Skinner, a facility in Florida is being favored at this time.

If all goes according to plan, a commercial spaceport in Florida could be established and operational as soon as 1992.

Aerobraking for orbital transfer vehicles under study

by Alan McAdams
Space Technology Reporter

The necessity of reducing the velocity of an orbital transfer vehicle has been a major concern of the space program since its conception. The most common method currently used to reduce velocity is propulsive deceleration which uses a rocket engine to decrease speed.

A method being investigated now is Aerobraking. This concept is not new, but our technology has had to catch up with the theory.

This method would use the Earth's high atmosphere to slow the vehicle down, thus reducing the amount of fuel needed to be carried for orbital maneuvering. Due to this fact it is estimated that the payload of such a system would be potentially twice that of a propulsive one.

This type of vehicle would be unlike anything previously tested because it would experience much more severe entry conditions than the space shuttle or the Apollo program.

Today, our nation's wind tunnels, arc jets, and other testing sites still cannot simulate the severe conditions in which an aerobrake would operate. Some success can be attributed to the advances in computer technology that have occurred, but correct simulations cannot be constructed without additional flight-test

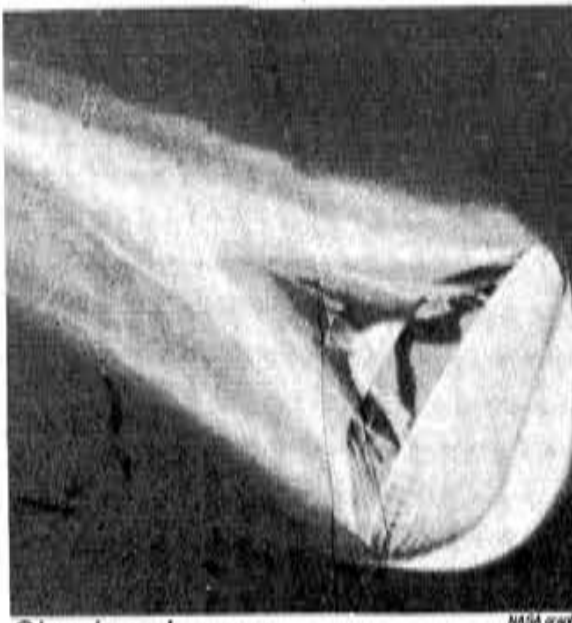
data taken at the correct velocity and altitude. Such is the purpose of the upcoming NASA aerobraking flight experiment.

According to Paul M. Siemers, with *Aerospace Engineering*, the vehicle being considered for the experiment would be a lightweight blunt structure with a 14 foot diameter asymmetrical aerobrake. This vehicle would be a subscale model of a much larger craft that would, in the future, be returning from a geosynchronous or lunar orbit.

The test vehicle would depart from the shuttle, ignite its solid rocket motor, and fly in a low Earth orbit, actually dipping into the atmosphere to slow itself down. After the vehicles return from the atmosphere, it would be recovered by the shuttle and returned to Earth for post-flight examination and analysis.

According to Siemers, on-board instrumentation will measure several flight conditions including data on heating, pressure, and performance of the heat shield. All of this experimental data will be used to help better understand what needs to be done to construct an orbital transfer vehicle of this nature.

In the future this type of vehicle could be used to ferry people and cargo between low Earth, geosynchronous, and lunar orbits with greater regularity and efficiency and with much lower fuel consumption.



NASA graphic

Slowing down...

The illustration shows the aerobraking concept which slows an orbital vehicle down by use of the atmosphere instead of using valuable propellant.

EPICURE

Meal Plan Sales

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2/26-3/4	137.73	244.75	327.08	356.75
3/5-3/11	120.53	213.75	285.38	311.34
3/12-3/18	103.33	182.75	243.68	265.93

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Delta II rocket launches military satellite into successful orbit

by Chip Zedrow
Space Technology reporter
Cape Canaveral Air Force Station -- The Air Force successfully launched its first Delta II rocket carrying the newest Global Positioning Satellite (GPS) from Cape Canaveral last Tues. The launch took place right on time on a sunny warm day at exactly 1:29:59.898 p.m.

The launch went very well, and the satellite was placed in its correct 11,000 mile by 100 mile orbit where

it will be eventually boosted into a circular 11,000 mile orbit. Col. Marty Runkle, program director of the GPS system, stated after the successful launch, "I don't know how we will top this in the future."

The launch had been scrubbed two days earlier due to upper level winds not cooperating. The two day delay was not a mechanical delay, it was a management delay. High level management decided to give the employees a days rest before attempt-

ing another launch. The Delta II is the Air Force's newest expendable launch vehicle and is built by McDonnell Douglas Astronautics. The contract was awarded in January 1987 for 20 rockets. The contract was brought upon following the Challenger disaster and other expendable launch vehicle losses.

Two GPS' are still planned to be launched from Space Shuttles during the Fiscal Year of 1991. Although, there is some consideration to using expendable launch vehicles instead of the shuttle for their launches.

GPS will be a constellation of satellites that covering the entire Earth from an 11,000 mile orbit. The system is designed for the military, but is also available to civilians and foreigners. As long as a receiver can pick up the telemetry from at least four satellites at any one time, they will be able to receive very accurate measurements in altitude, longitude, latitude and time. The military will read an encrypted signal that will give measurements within 50 feet. Civilians will read a signal that gives information within 330 feet. GPS will benefit people operating ships at sea, tanks in the fields, airplanes in the sky, and even everyday cars driving down the highway.

The next launch of a Delta II carrying the next GPS will take place 60 days after this first successful launch. If the program continues to be as successful as now, the entire GPS system will be fully operational within three years.

The major subcontractors of the Delta II are, Rocketdyne who builds the first stage main engine, Aerojet, who builds the second stage engine, Morton Thiokol who builds the solid rocket boosters, and Delco Systems who builds the guidance computer.

This Delta II launch was only the beginning of a very busy launch season at Cape Canaveral and the Kennedy Space Center. Two classified Titan IV's are planned to be launched along with two Titan 34-D's, two commercial Titans, nine Delta II's, one Atlas-Centaur, and seven Space Shuttles.

Ariane 4 set for launch

by Roland Houle
Space Technology Reporter
Next week, Arianespace, a French based company, will launch another Ariane vehicle from Kourou in French Guiana for mission 29.

On board the Ariane 4 will be a telecommunications satellite and a meteorological satellite. These satellites will be placed in geostationary transfer orbit 22,300mi above the Earth's surface.

It is only the third time an Ariane 4 launch vehicle is used to boost satellites into orbit. The larger Ariane 4 can carry two satellites instead of just one that its older cousins can lift. It carries these satellites in a special structure called a SPELDA.

The SPELDA is capable of carrying up to 8157lbs along with the rocket's nose fairing. Upon separation of the satellites from it, the SPELDA reenters the atmosphere and burns up like the three rocket stages of the Ariane 4 expendable launch vehicle.

The telecommunication satellite that will be boosted is a Japanese JCSAT 1 satellite. Built by Hughes Aircraft Company for the Japan Communications Satellite Company (JCSAT), the satellite provides 32 operational channels on the 27 MHz band for all of Japan.

Each channel is capable of carrying one high-quality TV channel or more than 250 full duplex telephone circuits.

A second JCSAT satellite will be launched by a Martin Marietta Titan III launch vehicle during the

third quarter of 1989 to complement the first satellite.

The second satellite is a European MOP 1. The Meteosat Operational Program (MOP), which will operate this satellite and three more like it to follow, will provide a service to the meteorological community.

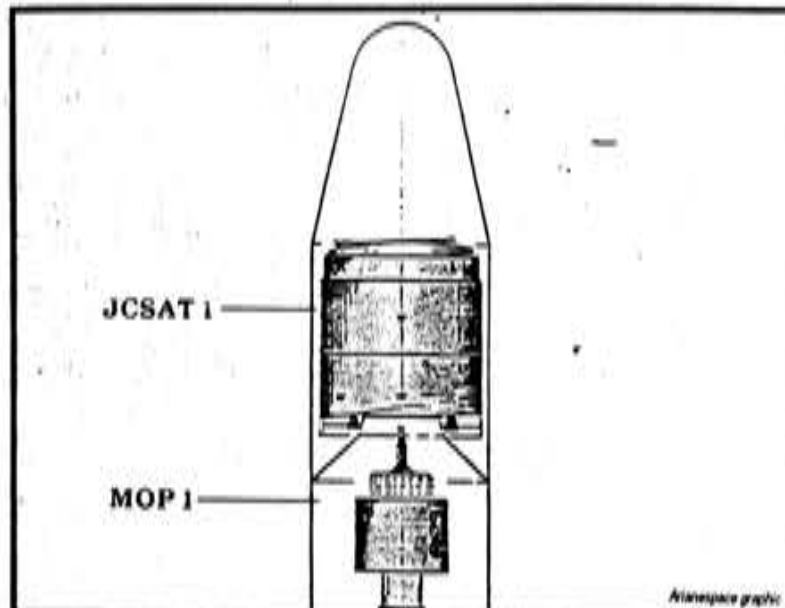
Manufactured by Aerospatiale, the satellite along with ground based units will be primarily used for Earth imaging, collecting environmental data, and disseminating meteorological data.

The MOP was designed to replace the Meteosat series of satellites. The aging Meteosat 3 will take on a back up role when MOP 1

becomes fully operational, which may occur as soon as May of this year.

The French Arianespace joint stock company represents the scientific, technical, financial, and political capabilities of the 11 members of the European Space Agency. The members include Belgium, Denmark, France, Ireland, Italy, The Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and West Germany.

Arianespace is responsible for the construction of Ariane launch vehicles, the marketing of the vehicle services and the actual launching of the expendable launch vehicle.



This Arianespace graphic shows the SPELDA of the Ariane 4 launch vehicle. In the SPELDA is the JCSAT 1 and MOP 1 satellites in launch configuration.



Blast Off...
Photo by Chip Zedrow

The first McDonnell Douglas Delta II is seen lifting off Pad 17-A at Cape Canaveral Air Force Station last Tuesday. The launch marked the beginning of many expendable launch vehicle launches in the upcoming year. It was also the first launch controlled by the Air Force, not NASA.

Geostationary spacecraft fails in orbit

by Michael Fried
Space Technology Editor
On Jan. 21 a U.S. geostationary weather spacecraft failed in orbit, forcing the United States to rely on one satellite for 18 months according to Aviation Week and Space Technology.

The GOES west satellite that failed had outlasted its design life of five years, and therefore was not an unexpected situation. The part that failed was a light bulb in an imaging system, which rendered the spacecraft useless. NASA will launch a replacement satellite in mid 1990.


The National Oceanic Atmospheric Administration (NOAA) is in charge of the weather satellites. As a

result of the failure another spacecraft, GOES east, was moved to a more central position which is a good location for the winter storm season.

The GOES east will be moved again in the spring to a more easterly location. The location will be used to observe hurricanes in the Atlantic ocean. During the fall the satellite will be moved back toward the west.

The most affected areas will be Hawaii and Alaska because they are on the outer borders of the satellite's coverage.

The GOES west was launched in April of 1983 with a design life of five years. The satellite has proved to be a valuable asset to the NOAA.



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4. Mississippi Burning 1:30, 4:45, 7:30, 9:55
5. The Burbs 1:30, 5:00, 7:30, 9:45
6. Cousins 1:30, 5:15, 7:45, 9:55
7. Her Alibi 1:45, 5:15, 7:45, 9:45
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2. Dirty Rotten Scoundrels 1:30, 5:00, 7:30, 9:55
3. My Stepmother Is an Alien 1:30, 5:00, 7:30, 9:55
4. Child's Play 2:00, 5:30, 8:00, 10:15
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United Artists 4-9
9. Bird 2:15, 5:30, 8:45
5. Working Girl 2:20, 5:10, 7:25, 9:45
6. Dangerous Liaisons 2:35, 5:00, 7:15, 9:35
7. Bill and Ted's Excellent Adv. 1:50, 3:45, 5:40, 7:35, 9:30
4. Twins 1:50, 3:50, 5:45, 7:40, 9:40
8. Who's Harry Crumb? 1:50, 3:45, 5:40, 7:35, 9:40
Call 252-0593 to confirm times

Is Television worth watching?

Late Night With David Letterman

by Joe Cambron
Diversions Editor

For those who have changed the simple act of watching after midnight television into a "Late night"

one might get the impression that he is either going senile or a personality of unusual quality. Upon a recent visit to a local beach establishment which featured the

exception of the tint of his hair, but he also answered all questions directed at Mr. Melman while instructing him in what to do by whispering in his ear. When the time arrived for Larry to kick-off the evening by announcing a chance to win \$100 by guessing his age, he dryly read from a card and slowly made his way off the dance-floor while a winner was found. Mr. Melman was then dragged through the audience by his associate, and was physically lifted by the crowd up the three or so steps leading from the dance-floor after he apparently was unable to ascend them alone. If that were not bad enough, any attempt to have a picture taken with him met with a blank stare and inane giggling leaking from his draped mouth.



photo by Joe Starnath

Larry "Bud" Melman parties the night away with other locals at one of Daytona's many nightclubs

ritual, the following article should have particular significance. Those bleary eyed few who frequent "Dave's Video Funhouse", otherwise known as "Late night with David Letterman", should recognize the character Larry "Bud" Melman.

talents of Mr. Melman for one evening, it appears that the first option could be a likely explanation of his actions.

Mr. Melman apparently travels with a, shall we say, duplicate. By that, I mean that Mr. Melman's assistant not only appeared identical to Mr. Melman with the

"Don't Tell a Soul" about the Replacements

by Brian Gerk
Diversions Writer

Since their inception in 1980 The Replacements have attempted to maintain their own image, which consisted of a vicious lack of image whatsoever. The latest release by this high-energy band has once again proven that band-leader/songwriter Paul Westerberg has done it "his way" and not given in to the temptation of predictability. This artistic philosophy may not win the band the praises of veteran fans who were originally attracted by a particular album, but it will almost certainly raise their status in the eyes of those who appreciate the spirit of the overtly abused words

rock and roll. "Don't Tell A Soul" is a departure from any of the band's previous works, a fact that in itself lends credibility to Mr. Westerberg's "don't give a damn what they think" attitude. The Replacements tend to indulge themselves in the studio and then take their whirlwind tour on the road, conveying their- 100 octave thrash in its proper place, a live atmosphere. It is on stage where The Replacements actually dare to show their true colors, scorching the listener's ears with good 'ol fashioned frenetic hard rock.

For this reason it may be easier to understand why 'Don't Tell a Soul' turned out the way it did.

There is a noticeable reduction of raucous music, but not quality music. In these times of trendy "folk & roll" The Replacements emerge as the band to beat when it comes to rich acoustic compositions and incredibly insightful lyrics. Paul Westerberg has firmly entrenched himself in the ranks of the decades best songwriters, and "Don't Tell a Soul" hasn't dulled his fine sense of expression.

Representative of the Reagan era youthful angst, Paul has managed to sum up the "losing before we start" despondency felt by much of today's America. The song "Inherit the Earth" describes a generation that refuses to accept a society

Once, his weekly visits were in the form of Kenny the Gardener, Larry "Bud" Headroom, Larry "The Big Man" Melman, and Ask Mr. Melman, but now they seem relegated to such situations as "Larry locked in a trunk" or "Larry in the Goodyear Blimp." Often, each of these appearances is limited to Larry reading a line from a cue card, and rarely deal with personal contact between Larry and other humans, quite contrary to past policy.

Whatever the case, I want an explanation. It seems strange that interviews of him are non-existent. Surely, on his recent road trip to Central America, someone must have been granted an interview with him.

Rumors of his previous occupation range from lawyer to elevator operator. On a recent "Later with Bob Costas", in fact, Dave was questioned about Mr. Melman's previous occupation, and Dave quickly retorted that he would not discuss it without Mr. Melman in attendance.

Well, although I have only questions without answers, maybe the next time Larry "Bud" Melman appears on your TV screen you will consider his sanity (We already know Dave has lost his.)

Late night with David Letterman appears on NBC (channel 2) at 12:30 a.m.

battered by self-serving entities existing solely for an immediate future.

"We'll inherit the earth, but we don't want it", sings Paul. "Lay our claim at birth, what're you doing on it?...The last bundle of twigs grow young and strong, we're holding our tongues...we'll inherit the earth, but don't tell anybody..."

Another selection showing Westerberg's unrest is "Anywhere's Better than Here", a theme that has been promoted through most of the band's career. This song has an intensity to be marveled at, Tommy Stinson on bass and Chris Mars on drums push

see REPLACEMENTS, page 16

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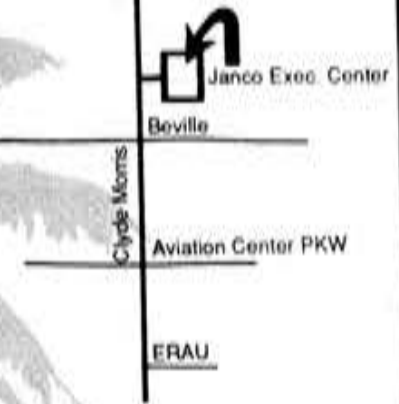
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Spring Break suntanners beware of those radical rays

Destination Daytona Press Release

Many Daytona Beach college students celebrating Spring Break don't realize just how strong the sun's rays can be. After only one day of fun in the sun, they have a painful sunburn that may ruin the rest of their trip -- and their skin.

Don't let this happen to you this year. A conservative approach to sunning will assure that your remaining vacation days will be as pleasant as the first. And you can go back to school with a healthy tan instead of an itchy peel.

Because Florida is closer to the equator than many northern states, the ultra-violet rays are four times stronger. This can mean you tan four times faster or burn four times faster, depending on your sun-sense. Local skin specialists, life-guards and sun lotion manufacturers recommend the following guidelines for Spring Breakers:

Day 1 -- Use Sun Protection Factor (SPF) 15 or higher everywhere skin is exposed, especially on the face and delicate areas where skin is thinnest and sun-sensitive.

Day 2 -- Continue with the same SPF you used yesterday.

Day 3 -- If you started with a SPF higher than 15, drop down to 15. If you started with 15, stay there one more day.

Day 4 -- Depending on your natural skin tone and the color of your Florida base tan, you may move on down the SPF ladder as follows:

Very fair to fair -- stay with SPF 15

Fair to medium -- Drop down to SPF 10

Medium to light tan -- Try SPF 10 or 8

Tan to olive skin -- Should be safe with SPF 8 or 6

Deep tan to dark skin -- Use SPF 4

Day 5 and beyond -- Follow Day 4's advice for the rest of your stay.

As your tan increases, drop your SPF gradually so that you maintain a beautiful tan with no burning or peeling.

Always keep a higher number SPF on your face. This avoids wrinkling later in life. Zinc Oxide in a rainbow of colors is a fun alternative to white lotion or oils. For an extra cool tip, pack your

skin protectors in your soft drink cooler and apply when cool to soothe hot skin.

Another tip: take a break from the sun for a day or two. There are also many indoor activities during

Spring Break when the sun gets too intense.

For more information on activities and a FREE Spring Break '89 poster, call Destination Daytona! at 1-800-854-1234.



Thinking of sunning yourself? Increased exposure ultra-violet radiation might increase the chances of skin problems later in life.

R.E.M. heads toward Florida for American tour

by Joe Cambron
Divisions Editor

R.E.M. is back from Japan and is coming to Florida. Four concert dates are currently planned for Florida, as well as a stop in southern Georgia.

The tour to highlight their latest LP, "Green", will begin in Louisville, Kentucky on March 1 and conclude in Knoxville, Tennessee on May 4. Other Southern dates include: New Orleans 3/27, Birmingham 3/28, Memphis 3/30, Nashville 3/31, Atlanta 4/1, Columbia 4/25, Savannah 4/26, Tampa 4/28, Miami 4/29, Orlando 4/30, Pensacola 5/2, and Huntsville 5/3.

R.E.M. is now going through what is easily their most popular period among music listeners. Their new recording label, Warner Brother, has brought prestige to a band that began its trek toward pop stardom in Athens, Georgia. "Green", their eighth album, hovers at number seven in the country after eight weeks of release and sales of

over 500,000 copies (it recently received a "gold" designation) according to Rolling Stone Magazine.

The band's recording history begins in 1983, with the release of "Murmur" which featured such hits as "Radio Free Europe", "Talk About the Passion", and "Catapult".

"Reckoning" followed the next year and continued in the R.E.M. tradition with the hits "7 Chinese Brothers" and "Rockville."

After a one year absence, R.E.M. returned with "Fables of the Reconstruction" in 1986. Hits from this statement reflects the content of this compilation of "B Sides."

they equal if not surpass more recent R.E.M. releases in both sound and melodiousness.

With the band's first rebirth came "Document", R.E.M.'s first mainstream effort. The memorable hits "Finest Worksong", "It's the End of the World as We Know It", and "The One I Love" are products of this album.

The band's first re-incarnation was short lived and featured only one other album "Eponymous" which was released against the will, so to speak, of the band. "Eponymous" features re-mixes, movie soundtracks, and older songs from the bands previous albums. The band's switch to a major label beginning with "Green" marks the band's second incarnation. So far, the hits "Orange Crush" and "Stand" have emerged from "Green."

For those already desiring tickets to one of the Central Florida dates, just watch the Avion's "Student Distractions" for details.

With appearances scheduled in Orlando, Tampa, Miami, and Pensacola, R.E.M. prepares to blanket the state during late April and early May.

"Fables" included "Driver 8" and "Can't Get There From Here." More attractive album covers began to accompany more distinctive lyrics with "Life's Rich Pageant" in 1986. "Pageant" featured one of R.E.M.'s few unoriginal works, "Superman."

With 1987 came a new R.E.M. effort. Although, even R.E.M. would admit that not much effort was put into "Dead Letter Office"

Several gems are included on this set of recordings, however, I particularly enjoy "Crazy", "Burning Hell", "Femme Fatale", and the band's drunken cover of Roger Miller's hit, "King of the Road."

Strangely enough, Michael Stipe (lead vocalist for the band) has referred to these older albums as "junk", even though many including myself would argue that

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1981 BUICK SKYHAWK--Must sell ASAP. Call Mark 760-1531.

1983 PONTIAC GRAND PRIX--V6, new paint, auto transmission, stereo, ac, power window, brake, and steering, tilt wheel, tinted windows, Goodyear Eagle GTS tires. Car is in excellent condition and sharp looking. \$4300 or best offer. Call 788-0751.

1980 MAZDA GLC--The "Original" Surf car. 5spd, stereo cass. w/front speakers. 90k miles. Needs carb work. \$1000 or best offer. Brian Giddas, box 5499 or 255-1017 after 5:00pm.

1974 VW BUG--Completely rebuilt inside and out. 1976 1600 dual port, wild paint job, 13" mags front, 14" mags rear. \$2850 or best offer. Sally ext. 6741 or 761-8600.

1974 VW THING--The ultimate beach car! Turn heads at spring break! Runs great. No top. \$800 or best offer. Call 257-5447.

1987 ESCORT GT--Great condition, new tires, just tuned-up. Must sell to pay for school. \$7500 or best offer. Will negotiate payments. Ask for Chris 274-4041 evenings.

1973 NOVA HATCHBACK--350, 70,000 miles. Excellent maintenance records. No rust, no bondo. Corvette jet blue paint. Must sell to pay tuition!! Phone 767-2059. \$1664.

Cycles for sale

1987 SUZUKI GS450L--Less than 6000 miles. New rear tire. Very clean. \$1700 negotiable. Call Scott after 8:30pm 239-6567.

1981 250cc YAMAHA--Must sell ASAP. Call Mark 760-1531.

1987 HONDA BILITE 80 MOTOR SCOOTER--Excellent condition. 2 helmets and gold cover. Only 2200 miles. \$1000. Call Sam at 257-2024.

86' SUZUKI GSXR 750--New Metzeler tires, new o-ring chain. Very well maintained. In excellent condition. Very low mileage! \$3400 or best offer. Call George after 5pm at 274-5233.

GS 550 ES, 1984--5000 miles. New rear tire, new brakes. Very well kept. \$1600. Call Matt at 252-2277.

81 SUZUKI GS850GL--6000 miles. Call Mark 761-7836.

MUST SELL--1987 CBR600. Red and white, Honda Hurricane. Vince and Hines performance exhaust, Dino jet kit, still under warranty!! SHOEI GX-1 helmet, and new tires. \$2700 or best offer. Call Scott at 760-1887 or box 7429.

BIKE NEEDS RIDER--Kawasaki, 440 Lhd with 4000 miles is looking for a new owner. Old owner is asking \$600. Call Carl Wilson ext. 6405 8 to 5.

Roommates

ROOM FOR RENT--Brand new 3 bedroom, 2 bath house in Port Orange about 8 miles from ERAU. Your own room with attached bath. Washing/drying facility. \$250/month - utilities paid. Call 756-2377.

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FEMALE NEEDED TO SHARE A NEW 3 BEDROOM HOUSE--Your own room with attached bath. About 8 miles from ERAU. Washer/dryer available. \$250 - utilities included. Call Sharmila at 756-2377.

ROOM FOR RENT--In private house 2 miles from school, \$195 a month plus one month deposit, 1/4 utilities. Call Alex at 239-0550.

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ROOMMATE WANTED--To share new 3 bedroom, 2 bath duplex. washer/dryer, cable, microwave, fully furnished except bedroom. \$200/month + 1/3 utilities. Quiet area in Port Orange. Call Kelly 767-1446 or reply to box 5634. Female preferred.

Misc. for sale

BIKE FOR SALE--Schwinn world sport 12 speed. Black w/blue letters, very good condition. New tire. \$160 negotiable. Contact Russell at box J-225 or call 252-9289.

FOR SALE--Computer desk with hutch, bicycle, and texts. Texts include drafting, chemistry, literature, algebra, trig., fortran, differential equations, history, tech report, speech, modern phys. & stats. Must sell ASAP. Call Mark 760-1531.

SEGA MASTER SYSTEM--3 joysticks, light phaser gun, 9 cartridges including choplifer, space harrier, hang on and others \$150. Sam 257-2024.

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Personals

K.G., It's been a great 4 years with you. I hope we have many more. Happy anniversary babe. Oh yea, you have the sexiest body I've ever seen. Love, B.M.

HELLO UP THERE! Are you enjoying the warm weather? It's freezing down here! Another month or so and everything will be warm and happy. I can't wait. See you soon. SOMEONE IN FLORIDA

FROM JAWS, Who are you?

P.C., How did you like our weekend at Cypress love? Did you get enough...sunshine?

MO, Sabres stink! Red wings rule! ooo yea!

B SQUARED, You're looking beautiful as ever. Keep up the great work!! I apologize for all our misunderstandings (2/14/89). I'll try my best but remember never give up!! TABFWAB-FAMWITSPUI!

PERMANENTLY HOOKED

CHACHIL, Thanks for teaching me about your stick. Get used to sitting over on the right side. Love, NICKY

By the way, very cute feet.

"SPECIAL" FRIEND, When you ready for a relationship - pick me!!...AGAIN!!...I CAN be better than ever!! My heart and my love go with you, wherever you may go...ALWAYS!! waiting...FOREVER!

MARSEL, You are the Ideal! Happy Valentine's Day. THE SANDMAN

BROWN EYES, The roses were mine. I love your french accent, the way you dress and Guenchy on you. You say you don't date. But would you go to dinner? BLUE EYES from Miami

TO: BILL, This personal is to myself because nobody's ever written me one. BILL

LADY Z, How's the pup? How's the "Pazo-man"? My lighter's getting lonely. Let's get together and do something soon - like before we graduate. ZIPPO

DEAR SWEET MASTER MAX, What would we do without you and your brilliant mind? We'd probably end up filed in the wrong cabinet. Love, SWEET SUR & SWEET SAB

MISSOURI LADY, How is life treating you. I hope things are going good. Fingers are crossed till May. SNOW FLAKE CATCHER

SNUGGLIES, We have to Snuggle more often! Had A great time. I really enjoy your company. Lav, J.P.

J.P., Who is Snuggles? We have to know! EIC & PM

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REPLACEMENT

(Continued from page 14)

the energy to a crescendo, leaving most post-punk rhythm sections sinking in their morass of self-adulation. Some fans may be disappointed by the scarcity of blistering cuts such as this. "I Won't" sells itself with Westerberg bellowing out a piano-rich funky melody reminiscent of Jerry Lee Lewis. Paul truly shines with this song and justifies anything else on the album that may be questionable. The influence of guitarist Slim Dunlap

only serves to strengthen the structure of this album, and is a welcome addition to the band. Dunlap toured with the band post "Pleased To Meet Me" and could always be counted to deliver a performance that enhanced both show and attitude. Surprisingly not every song on this album delivers. A lack of consistency holds this album back in many areas. The song "Asking Me Lies" sounds amazingly like a throw-back to The Cure. It wouldn't be above the band's level of outrageousness to do this for a

joke, but the lyrical content would lead one to believe that Paul was serious with this song. The obvious tongue-in-cheek humor that has been present on previous albums ("Let It Be" when the wacky and winsome bunch belted out Kiss' "Black Diamond") doesn't make itself readily apparent on most of these new tracks. Has Paul straightened out? Is Tommy really wearing lipstick in the video for "I'll Be You"? Does Chris look depressed? Does Slim care? See them live and ask them.

RACE

(Continued from page 1)

was thrown to the ground by an air hose being dragged behind a car. Deese suffered a broken left leg which was operated on at Halifax Medical Center. Darrell Waltrip's lucky number must be 17. In his 17th attempt, driving car number 17, Waltrip finally won the Daytona 500. After the race, he couldn't wait to hug his 17 month old daughter Jessica.

LETTERS

(Continued from page 2)

comply something. They should teach and let students practice what they have learned, not force them to go searching for what a hydrometer is. I don't understand why this has been allowed to continue for so long. I don't know if the person who

makes up these problems does not understand physics or whether he gets some kind of sadistic pleasure out of making the 104 students suffer. Dr. Agrawal please take a look into this matter

SAFETY

(Continued from page 6)

the surface. Most likely the fuselage will be under water by the time the aircraft comes to rest. Another very important consideration is that the gear should be retracted, otherwise it is very likely that your aircraft will flip onto its back. As for landing direction, a general rule is to land parallel to the swells. If a strong wind exists, then you may have to land into the wind against the swells, however try to land on the backside of the swell.

Avoid the face of the swell. What ever you do, don't forget that item on your checklist, door ajar! If you can wedge the door open with something, (a shoe), do it. If the doors are closed it may be nearly impossible to exit the plane after touchdown particularly if the fuselage is submerged! Because of the likelihood of over water flights in Florida, it is a good idea to become familiar with the regulations governing them. Yes, these regulations are here to help you. Also be sure you understand

ditching - there is a lot to it. This article only covers the basics. I strongly suggest you refer to the AIM and other publications covering ditching. In our library, I found one very good publication with much more information than I can cover here. It is: *Aircraft Emergency Procedures Over Water*. It can be found in the vertical file under Airplanes-Ditching. It would be valuable reading for any pilot. Remember that safety is pilot awareness!

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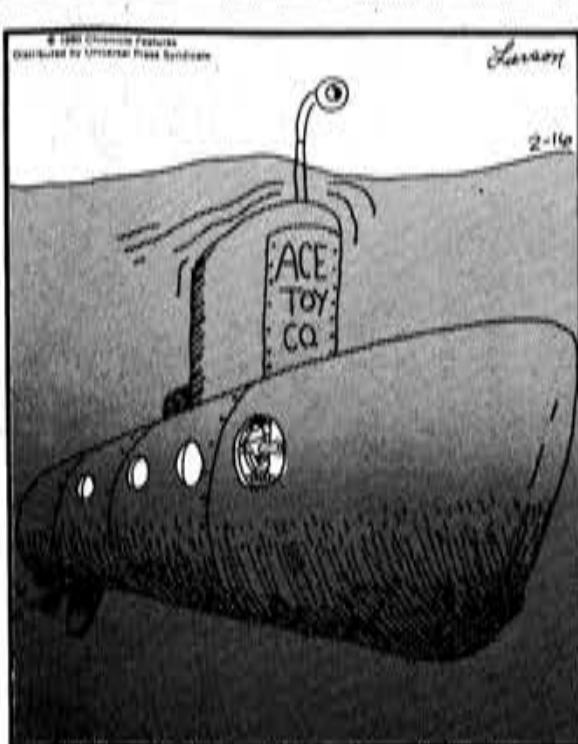
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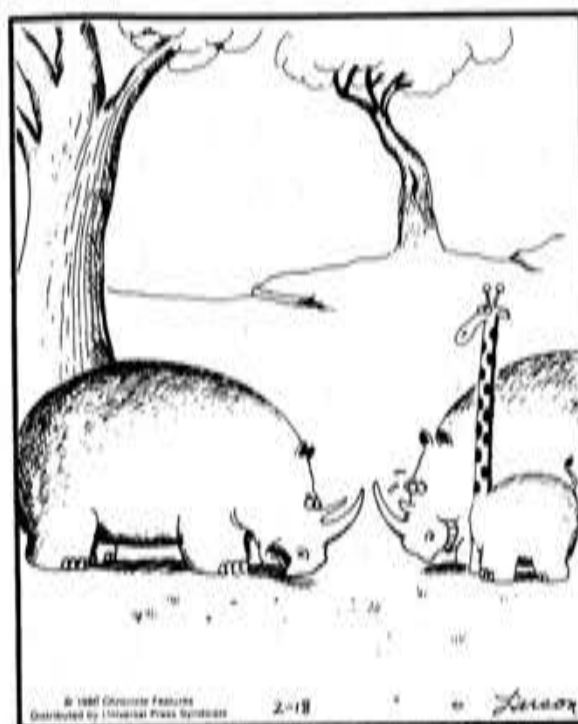
Gary Larson



"Get ready! He's put the rubber ducky down and now he's reaching for the bar of soap!"



"It's no use, I drink and I drink ... and I still can't forget."



"There's something different about that kid."



"Yoo-hoo! Oh, yoo-hoo! ... I think I'm getting a blister."

Calvin and Hobbes

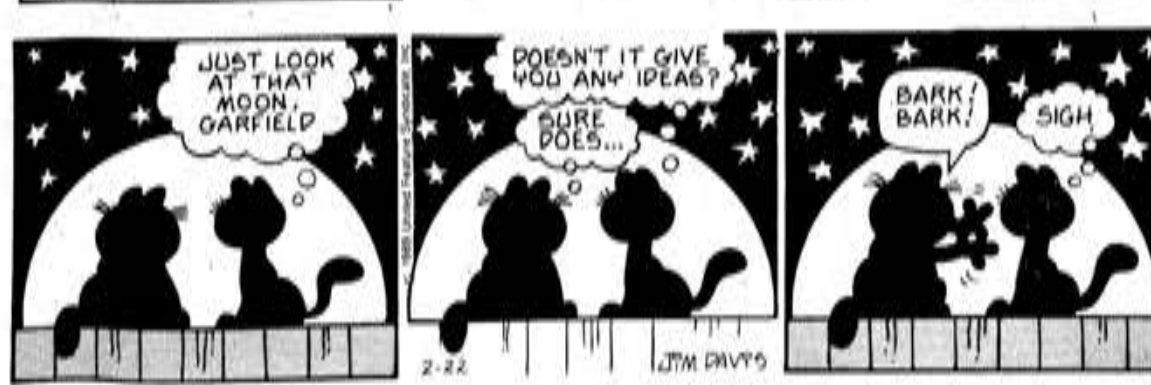
Bill Watterson

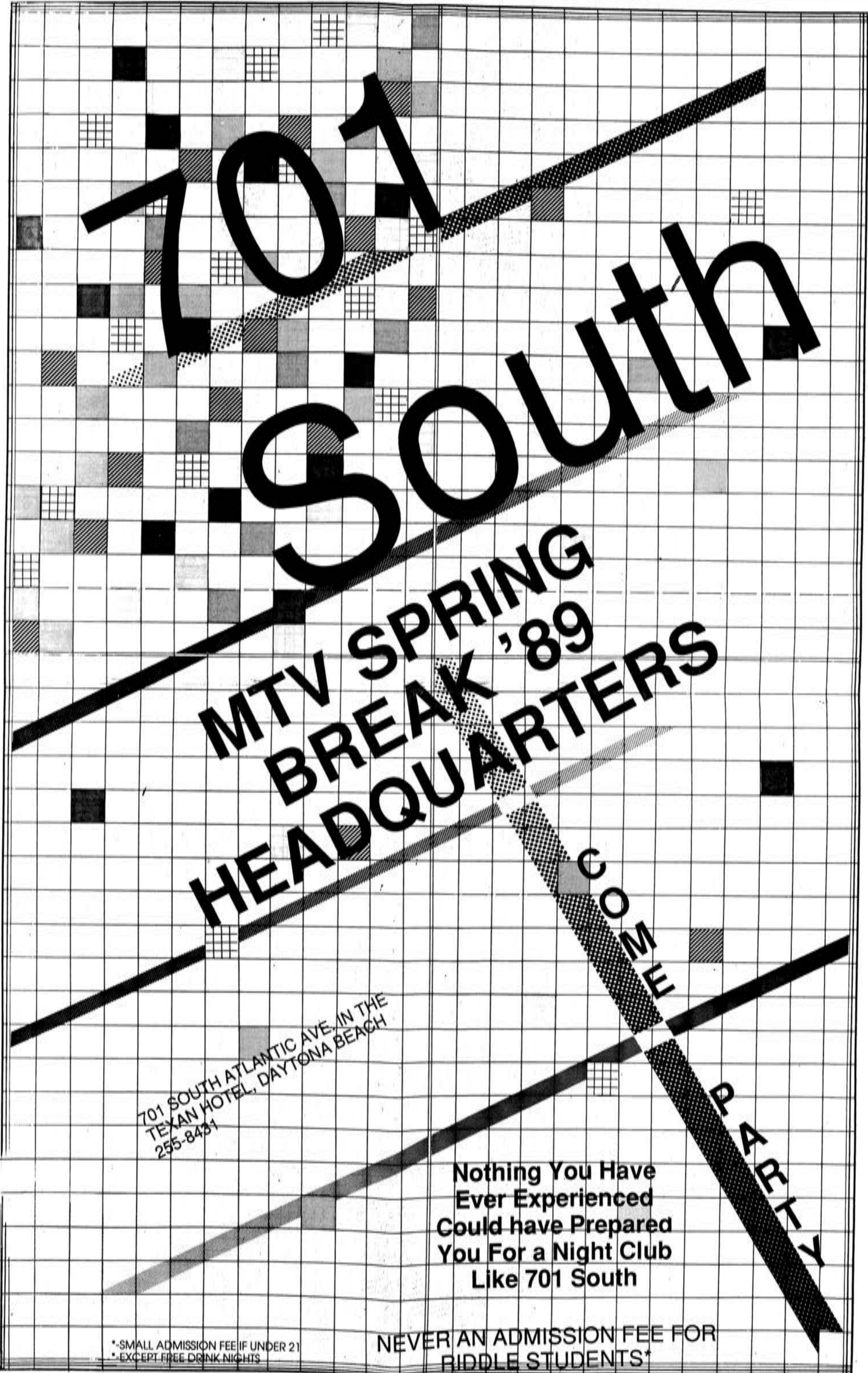


"Hmm ... not bad, Kemosabe ... but this one little better maybe."

Garfield©

Jim Davis





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