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SPACE TECHNOLOGY

Atlantis launches defense satellite

NASA's last space shuttle mission of the year is filled from the start with shuttle and satellite equipment flaws

b) Greg Rezendes Space Technology Writer

The space shuttle Atlantis thundered into the dark Florida sky on November 24 after being delayed about five days.

postponed because of a malfunction on the end of a runway at Kennedy of the Incrtia Measurement Unit Space Center's Shuttle Landing the Department of Defense Satellite Unfortunately, the astronauts were on board. The

IMU is the recring system for the satellite. The problem was found on November 18. At that time, Force OLLIOIAIN decided to

scrub the mission until the IMU Gregory, Mission Commander; Air could be replaced. This delayed Force Lt. Col. Terrence "Tom" STS-44 for five days, moving the Henricks, Pilot; Dr. Story hunch date from November 19 to Musgrave; Navy Lt. Cdr. Mario November 24,

Atlantis lifted off at 6:44 p.m. after a short delay at the T-minus: nine minute mark. The delay was to stop the shuttle from coming very close to the Soviet space station Mirthe space station, and the astronauts so close to the space station.

warning satellite was deployed six the faunch.

hours after launch. The 5,200 pound satellite will have a geosynchronous orbit around the Earth. This satellite will detect the launch of missiles using an infared telescope system.

During the course of the mission one of the goals was to view an The mission, which was array of circles in a gridded pattern (IMU) of the Inertial Upper Stage of Facility using a telescope.

The 10 day mission was

shortened when the Atlantis'

IMU 2 falled. The orbiter has

three IMU units, but still

diverted to Edwards Air

Force Base, CA.

not able to elouds covered most of the cast COURT.

mission crew Air Force Col. Frederick

Runco Jr., Army Lt. Col. James Voss and Chief Warrant Officer Thomas Honnes.

The solid rocket boosters were third journey into space. towed back to the Kennedy Space Center on November 22. There is a while in orbit. During the flight, buckled area half way around the Atlanta did come within 25 miles of forward skirt and a torn section. There are also some creases in the on Atlantis and commonants on Mir left forward motor case. The were able to view each other's space boosters will be inspected to vehicle. According to NASA, the determine the exact cause of damage crew was never in any danger being to the forward skirt. The damage is believed to be caused by the high The Department of Defense early seas that were present the night of

shortened when the Atlantis' IMU 2 failed. The orbiter has three IMU's, but still diverted to Edwards Air Force Base, CA. The mission was declared a minimum duration flight 57th Fighter Weapons Wing on Saturday after the problem Operating Location until his

The mission ended last Sunday when the Atlantis landed at 5:34 p.m. EST on Lakebed runway 05. At the landing NASA decided to test the distance it takes to stop the orbiter without using brakes. However, Mission Commander Gregory decided to apply the brakes as Atlantis approached the end of the runway,

Mission Commaner Gregory is age 50 and was born and lives in Washington, DC. He received a buchelor of science degree from the U.S. Air Force Academy and a master of science in engineering mechanics from the Georgia Institute of Technology. He has logged more than 288 hours in space and more than 6,500 hours of flying time in more than 50 types of aircraft, including 550 combat missions in Vietnam. This is his

Henricks is age 39, and will serve as pilot. He was born in Bryan, OH, but considers Woodmore, OH, his hometown. He received a bachelor of science in civil engineering from the U.S. Air Force Academy, and a master of arts in public administration from Golden Gate University.

Henricks flew the F-4 in fighter

The 10 day mission was Air Force Base, Las Vegas, After attending the USAF Test Pilot school in 1983, he remained at Edwards Air Force Base, CA, as an F-16C test pilot and chief of the selection as an astronaut.

> Musgrave is age 56, and will serve as a mission specialist. He was born in Boston, MA, but considers Lexington, KY his hometown, He received a bachelor of science in mathematics and statistics from Syracuse University; bachelor of arts in chemistry from Marietta University; master of business administation in operations analysis and computer programming from the University of California at Los Angeles; master of science in physiology and biophysics from the University of Kentucky, a doctorate of medicine from Columbia University and a master's degree in literature from the University of Houston.

> This will be Musgrave's forth space flight. Musgrave flew as a mission specialist on STS-6 in April 1983, Spacelab-2 in August 1985 and STS-33 on November 1989, He has logged more than 431 hours in

Runco is age 39 and will also be serving as a mission specialist. He was born in Crown Point, IN, but considers Yonkers, NY, his hometown. He received a bachelor's degree in meteorology and physical oceanography from the City College of New York, bachelor and master squadrons in England and Iceland. of science in mechanical In 1980, he was reassigned to Nellis engineering from Purdue University,



And they're off ...

prioro by Alico Cevy

The Space Shuttle Atlantis lifts off Pad 39-A at Kennedy Space Center for the 44th launch of the Space Transportation System. Its mission was to taunch a DoD early warning satellite.

Vosa is age 42 and will serve as hometown and attended Urbana the third mission specialist. He was College in Urbana, OH, He born in Cordova, AL, and considers completed numerous military Opelika, AL his home town. He received a bachelor of science in aerospace engineering from Auburn planned for January. STS-42 will University, and a master of science carry the International Microgravity in aerospace engineering sciences Laboratory (IML-01), IML-01 is from University of Colorado.

Hennen is age 39 and will serve as the payload specialist. He scheduled to be seven days long considers Columbus, OH, as his with a seven person crew.

The next shuttle mission is designed for life sciences research. The mission aboard Discovery is

Unusual inventory for next shuttle mission: flies, worms, slime mold

CAPE CANAVERAL, Fla. (AP) suited entity," Snyder said, "and the torbic - seven autronauti egoped up (foundworm), they know its whole for seven days in space with thes, chromosome, they know everything collaborating with NASA. worms, stick insects, bacteria spores there is known about that worm." and slime mold

ordinary inventory for NASA's next. They grow quickly - in three days, who flew on a scientific research mission by Discovery in late offspring.

and fodder plant and carrot on the ground."

"It does sound strange," NASA mission scientist Robert Snyder admitted. "But these are good test subjects. There are people who have astronauts were sent home three assigned to Columbia and was spent their lives studying them.

The fruit fly is an incredibly navigation unit.

protoplasts, or cells.

about 1 1/2 millimeters in length physician - as well as a Canadian Rockwell International's shuttle That's just part of the out-of-the- and normally dwell in soil or water, neurologist and a German physicist assembly plant in Palmdale, Calif. shuttle flight, a scientific research and each one can produce 280 mission in 1983.

Also aboard will be frog eggs and this to say: "Apparently, it moves on astronauts will conduct medical seedlings, lentil roots, thale cress, to see if it's different in space than their heart function and blood

The mission - shuttle trip No. 45 moved to the top of NASA's space evaluate back pain, a common flight agenda after Atlantis returned to Earth safely Sunday. The six days early because of a failed supposed to last 10 days. All that

Discovery's laboratory mission is grounded for six months in 1990 it has all the makings of a horror advantages, of the nematode an international affair. More than because of fuel leaks. 200 scientists from 13 countries are Mission managers opted for a

The microscopic worms measure. Americans - four engineers and a undergoing modifications at

In addition to keeping tabs on all As for slime mold, Snyder had the animals and plants, the pressure will be monitored.

Their posture will be measured to complaint among astronauts in orbit.

The mission originally was changed when Columbia was turn of the century.

seven-day trip on Discovery rather The crew consists of five than wait for Columbia, which is

> "Some experiments had to be cut back," Snyder said, "That's just something we had to accept if we wanted to go earlier.'

"We have more Spacelab sperm, fetal mouse bones, hamster its own (and) the way it moves is a experiments on one another. Their missions than we've ever had kidney cells, yeast, wheat and out contracting motion. They just want sense of balance will be tested, and before," said William Lenoir, head of NASA's space flight program.

They're more complicated. They take more effort," Lenoir said. "But we've got to get used to it. That's going to be good practice for space station.

NASA hopes to have a space station built and operating by the

NASA project looks at cirrus' clouds effects on global warming

by Roland Houle Space Technology Editor

Those thin, wispy clouds,

About 100 scientists from 11 countries gathered in Kansas for a month long, \$6 million study of the clouds.

project manager from NASA's Langley Research Center in Hampton, Va.

Of the factors in global warming, the role of cirrus clouds is the least understood, he said.

About 30 or 40 percent of the Earth normally is covered by cirrus clouds. Made of ice crystals, they exist at above 30,000 feet where the on a smaller scale in Wisconsin in temperatures range from minus 40 1986. The next cirrus project will degrees to minus 60 degrees take place in 1993 in the western Celsius.

Cirrus clouds allow solar radiation to pass through, but simultaneously keep the Earth's infrared radiation from escaping.

The global-warming theory solar heat and warm the planet in thought to have a cooling effect.

the same way the glass of a greenboung traps heat.

If this theory is correct, the called cirrus, may affect global rising temperatures will create warming as much as acrosols, car more clouds because there will be exhaust and factory emissions, more moisture in the air. But scientists don't know whether those will be of the cirrus type.

If so, they will trap more radiation closer to the Earth, creating a greenhouse within a "We've got high hopes of greenhouse. But if the number of learning everything we need to cirrus clouds decreases, this could learn," said David McDougal, counteract some of the effects of global warming.

> "Our philosophy is to collect as much information as we can in a short period of time and apply that to other regions of the world," McDougal said.

The group will continue its work out of the Coffeyville Municipal Airport until Saturday.

A similar study was conducted equatorial Pacific, off the coast of New Guinea.

In June 1992, some of the scientists will examine marine stratocumulus clouds above the Azores and Madeira islands off holds that gases such as carbon the coast of Morocco. These dioxide in the atmosphere trap clouds, thick and low-lying, are

Satellite on a string developed by Martin Marietta Corporation

BETHESDA, Md. (AP) - Martin Marietta has developed a satellite on of a shoestring and is made of a a string that can study a zone that filament of plastic called Nomex, aircraft, balloons and free-flying satellites currently can't reach.

The satellite can be lowered 78 miles from the space shuttle to take carried away from the shuttle by tests between 55 and 125 miles tiny rockets built into it, the above the Earth - an area that is company said. either too high for conventional earth for the shuttle, company officials said.

The system, called the tethered satellite program, was developed by the defense and aerospace contractor under a \$100 million contract with the National Aeronautics and Space Administration, Martin Marietta

The program is a cooperative project between NASA and the Italian Space Agency, which is supplying the satellite.

Martin Marrietta said it built the carried aboard the shuttle,

The tether is about the thickness wrapped by copper strands, Teflon, braided Keylar and braided Nomex. The 1,200-pound satellite will be

NASA plans to test the system aircraft to study and too close to the during a shuttle mission in September by deploying a satellite 12 miles above the shuttle, Martin Marietta said.

The first mission will include an electrodynamics test in which the satellite and tether will be used to generate electricity as they cut through the earth's magnetic field at high speed.

The second mission is planned. for the mid-1990s when the satellite will be lowered 62 miles toward the Earth to study the upper atmosphere. The system also can be used to search for mineral and for reci, tether and deployer that will be experiments in artificial gravity, the company said.

Flight	Launch Date:	Orbiter:	Duration:	Orbital Altitude:	Crew
STS-42	January 1992 oad: International Mic	Discovery	7 days	185 miles	CDR: Ronald J. Grabe; PLT: Stephen Oswald: MS: Normar Thagard; MS: William Readey: MS: David Hilmer; PS Roberta Bondar; PS: Ulf Merbold
STS-45 Primary Pays	March 1992 oud Aumospheric Lab	Atlantis oratory for Appl	8 days kentions and Scie	185 miles nec (ATLAS-01)	CDR: Charles Bolden; PLT: Brian Duffy; MS: Kathryi Sullivan; MS: C. Michael Foale; MS: David Leestma; PS Michael Lampton; PS: Byron Lichtenberg
STS-49 Primary Payl	May 1992 ond: INTELSAT-VI R	Endeavour teboost	7 days	228 miles	CDR; Daniel Brandenstein; PLT; Kevin Chilton; MS; Thoma Akera; MS; Richard Hieb; MS; Bruce Melnick; MS; Kathryi Thornton; MS; Pierre Thuout
515-50 Primary Payl	June 1992 and: United States Mic	Columbia crogravity Labor	7 days story (USML-01	160 miles	CDR; Richard Richards; PLT: John Casper; MS: Bonnie Dunbar; MS: Kenneth Bowersox; MS: Carl Meade; PS Lawrence Delucas; PS: Eugene Trinh
STS-46 Primary Payl	August 1992 oad: Tethered Satellite	Atlantis System (TSS-0)	7 days	230 miles	CDR: Loren Shriver; PLT: James Wetherbee; MS: Jeffre Hoffman; MS: Andrew Allen; MS: Franklin Chang-Diaz; MS Claude Nicoller; PS: To be determined (Italy)
STS-47	September 1992 and Spacelab J (SL-J)	Endeavour	7 days	160 miles	CDR: To be determined; PLT: To be determined; MS: Mark Lee; MS: N. Jan Davis; MS: Mac Kemison; MS: To be determined; PS: Mamoru Mohri
STS-52 Primary Payl	November 1992 oad: Laser Geodynami	Columbia ics Satellite (LAC	9 days 3EOS II)	160 miles	To be determined.
STS-53 Primary Payl	December 1992 oad: Department of De	Discovery efense payload	4 days	200 miles	To be determined.
STS-54 Primary Payl	January 1993 oad: Tracking Data an	Endeavour d Relay Satellite	6 days (TDRS-06)	160 miles	To be determined.
STS-55	March 1993 oad: Spacelab (SL-D2)	Columbia	9 days	160 miles	CDR: To be determined; PLT: To be determined; MS: Jerry Ross (PLC)

Being an air safety investigator:

No one is spared from accident risk

not assign 'blame.'

They are looking to

determine the probable

cause of the accident.

- Greg Feith

by Jon Osterholm Editor in Chief

'nobody has been selected by the big man upstairs [so that they are] not going to have an accident. We are all volatile. What we're trying to do is prolong it. If we prolong it throughout our aviation career then we've done a good job.

Feith, an air safety investigator for the NTSB, spoke to an audience of about 200 people in the J. Paul Riddle Student Center last month. He is an Embry-Riddle graduate (1981), and hopes that his experience in dealing with accidents rubbed off on pilots who are in the same place be was little more than ten years ago. He is presently the deputy regional director for air safety in the Northeast.

The job of NTSB investigators is to promote transportation safety. Feith explained, "my particular expertise [is] aviation. So I'm promoting aviation safety through accident investigation, *

Greg Feith said recently that and during a crash. "The use of computer animation makes the creative thinking process a little easier," Feith said, "because now you're actually watching it happen.

Feith showed the Embry-Riddle audience two examples of this technology. It visually represents the moments just before a crash, something that Feith The Safety Board does

says is extremely hard to do based only on the physical evidence of the aftermath.

The data used to create the animation is from

digital flight data recorders. "We to say that we blame the pilot," but know what the actual gyrations of the airplane are because it's recorded," Feith explained, "Now we can put a video image to it and watch it happen, just like we were there."

Animation makes the air safety investigator's job easier. It allows

The NTSB uses computer anima- less time to be put into interpreting tion to simulate the moments before the cause based on the aftermath, and allows the NTSB to focus more on questions such as, "Is there procedure problems? Are there safety and flight issues that need to be addressed?

"There's nothing we can do about the aftermath. There is something we can do about preventing the accident from happening again,

The Safety Board does not assign 'blame," Feith said. "They are looking to determine the probable cause of the accident." He says people "want

the goal of the NTSB is to discover what or who actually caused or contributed to the cause of an accident. whether it be the pilot, the airline, the aircraft itself, the manufacturer, the FAA, or a combination of many of the elements involved in aviation.

The lawyers assign the blame," Feith added

"It's the deep pocket theory. . . . If the pilot goes out and kills himself. and he did it by his own fruition," lawyers look to find blame in the manufacturing of the aircraft. "A lot of times they (manufacturers) will settle out of court so that they don't have to drag the whole process through the courts. But a settlement out of court is, in its own way, an admission of guilt. . . . They've contributed to that process. . . . It would be nice if somebody would spend a lot of money" on a court settlement because maybe that will curb some of these lawsuits."

You settle for fifty million bucks, that may be half of what they (a general aircraft company) made last year. That will put them put of business. , . . You stack up seven, eight, nine lawsuits a year, . . . they all add up to hundreds of million of dollars. That'll kill an aircraft business. . . . It's a very sad fact in avia-

"It's not called hush money. . . . The company doesn't need all of

that kind of public recognition."

His show included slides of accident sites, paired with his concise explanation of why each accident happened. Not infrequently, why the accidents happened was due to a pilot's poor judgement.

Feith stresses during his speaking engagements that "Nobody is immune from an accident . . . It's very difficult to convey that to somebody because there's a mindset that says, 'It can't happen to me, I'm too safe for that.' It can happen to the safest of pilots. Unforunately, it's because of a minor lapse of judgment. As soon as you get that one lapse, or like I said (in the presentation), when you start questioning your own judgment, that's when you put yourself in a compromising position.

He said it is important for all pilots to take a professional attitude when in the cockpit, no matter if they are a student or an air carrier

In his show, Feith provided plenty of evidence that good judgement is crucial for pilots to survive. One pilot died when he tried to fly too high for his plane to withstand and

There was another pilot who lost rolled in and "the visibility was

track of his position in the Rockies and ... it is important for slammed into the all pilots to take a side of a mountain. professional attitude Feith showed a when in the cockpit, if slide of the pilot's they are a student or an small nircraft embedded and air carrier captain. nearly flattened in the side of a mountain. It looked like Montana, east of Billings," Feith

a scene from a Road Runner cartoon said. "He flew into that hill." where Wild E. Coyote slams into a improper judgment is nothing to .23. All three died. laugh at. It is at times fatal.

presentation, Feith said that the man was among the most cautious of pilots. Even an expert pilot can get himself into a situation that is Quick, deadly stop...

This aircraft missed nearby houses, but was ripped apart when it struck several strong trees. The occupants died.

impossible to control, he explained. But carelessness often leads to a terrible end. Ducks Unlimited is a duck hunt-

ing group that meets "especially in the Midwest," Feith said, explaining the background of a Montana crash be investigated.

One family, who had flown from their farm about fifty miles away to a Ducks Unlimited fundraising dinner, chose to fly home afterward. With no lights on at the airport, they took off into bad weather; fog had

> restricted to less than a half mile."

tried to follow a highway home. "There's only one hill in

The father was flying the plane

mountain in his ACME flying suit. with a .20 blood alcohol level. His The bungling coyote was never wife, who was seated in the right known for his good judgment. But, front seat, had a 19 b.a.l., and their of the plane, however, his fortune as Feith showed the audience, in life son, in the back seat, had a level of

Feith said that, when he An aerobatics pilot that Feith approached the pathology lab, "I knew died in a crash. During his could smell the alcohol down the hall, before I was in the room. When I walked in, the pathologist said, 'I don't need to tell yn what happened

"I said, "Yeah, I can smell it."

In many of Feith's stories, alcohol was involved in the cause of accidents. But some did not involve such an obvious lack of judgment. At times the pilot is not a fault, of course.

A United DC-10 landed in Denver, but one engine, its number one (the left engine), did not reverse. The plane slid as a result of the opposing thrusting of the engines, and held a heading through dirt next to the runway.

The front gear broke off- luckily. If it hadn't, the plane, going 140 kis., probably would have run through rental car company lots, The father slamming through car after car (which you know, if you've ever rented a car, are typically full of gasotine when on the lot), ending in a hery horror. The loss of the from gear significantly slowed the air carrier's motion, helping to bring it to a halt before the rental lots.

A pilot with steady nerves and good judgment can often avoid tragedy in dire situations. Once out could change. A bush pilot in the Rockies spared himself in a crash situation by setting his plane into some trees, leaving it hanging from branches. "He knew the trees were down there," Feith said, and that "they were the only place he could

See Accidents, page B5



United we are fortunate...

This United carrier missed a fiery fate, slowed by its front gear breaking off. It landed in Denver, and one of its engines would not reverse, resulting in the accident.



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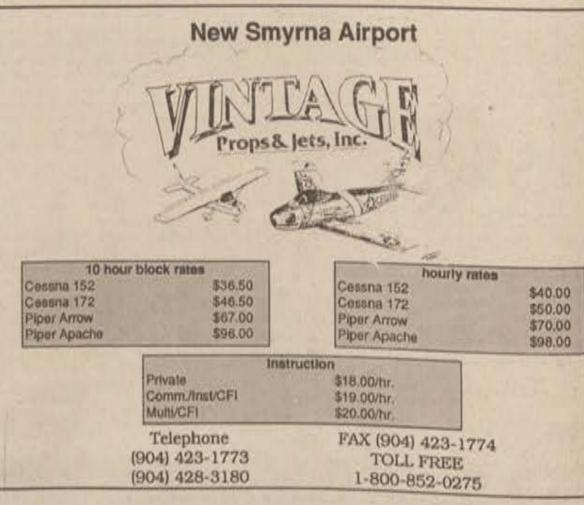
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Mechanical Technology The Saturn Coupe: The Avion's Car of Fall 1991

by Joseph Perrina

Mechanical Technology Editor

petition," After a test drive of the ticket." Saturn Coupe SC, it is in the opinion competition in price, handling, an out of traffic like an animal, acceleration and braking.

rpm and 122 ft-lb at 4800 rpm. A The SC and SL2 has a slightly highor first gear and one overdrive in the crowned turn. automatic and the same type of arrangement in the five speed, independent McPherson struts on However, the SL1 and SL has two the front end. The rear end is an overdrives and a slightly lower first independent tri-link with strut/spring

Also, it has a is somehow rigged into the injection which is due to the vehicle speed system to give better performance sensitive, manual rack-and-pinion without dumping gas.

required me (a 6'3" person) to exhaust system, manipulate every manual dial and lever on the seat controls to sit in a the automatic that we tested, was

driveable position. Then it came time to put her in drive and start the The Saturn Company has promot-test drive. From the moment the car ed their cars as, "the best America touched the pavement, the car gives has to offer against the foreign com- the feeling of, "alright, let's go get a

The automatic SC that we tested of this newspaper that this statement was no where near the typical small is true. Without a shadow of a doubt to mid-sized car in feeling. Nor was Saturn earns the Avion's "Car of the the acceleration what we expected Semester" award. Out of any of the out of a 124 hp engine. In normal cars we tested, the Saturn best the mode the car bobbed and weaved in Excellent acceleration was instanta-The engine is a 1.9L DOHC 4- neous with the slightest touch of the cylinder that pushes 124 hp at 5600 gas. Every gear kicks and says "more," giving the driver a feeting four speed automatic or a five speed of indestructibility. At seventy notes manual transmission is available. an hour the car did not roll in the slightest bit around a 90 degree

All Saturns come equipped with module. The steering was as tight as "Normal/Performance" switch that Eboneser Scrooge's pocket book, steering. Yet, the SC turns on a rail From the start, the Saturn SC that and the car was the most responsive we tested seemed uncomfortable. tested so far. One final touch to the Limited headroom and leg space undercarriage is a stainless steel

To get the most out of the car, for



"...it was built in a nice place by nice people..."

Above is a quote from a Saturn brochure. The company is based in Tennessee. Left: The dashboard layout in the Saturn Coupe works for the driver. Right: A "cut away car" on display to show what she's made of. simply switching to performance some nice things to offer, like gas certain instruments are invisible to than its worth. Especially consider-

mode and putting her in drive. Using typical automatic tactics, like shifting through low gears, slowed the car down by ten seconds in the quarter mile drag. Our test results yielded a 16 second quarter. The 0-100 test was changed to a 0-95 test (there was a slower driver up a head of me) and yielded 28 seconds.

Top end tested at 105 mph at 4000 rpm. Yet, the SC we tested seemed to want more, but the final drive ratio is 4.133 on the SC nutomatic and probably caused enough stress on the 1.9L engine in and of

Braking proved itself excellent. At 85 the brakes were slammed. The cur stopped dead after traveling about three car lengths and skidding, under control, approximately ten feet. Although ABS is optional, it is not at all necessary,

Aside from the poor head room, the ergonomics ranked above average. Of course it had passive restraint seat belts, but that is about the only thing that comes extra. Power locks and windows are optional. Cruise control is optional. Power seam are non-existent as well as driver's side air bags, Nonetheless, the SC does have

constructed with the knowledge that: the steering wheel is in from of it.

Engine and performance

1.9L aluminum 4 cyl.w/

cast iron liners, 16 valve

DOHC aluminum heads

Multi-port injection

6500 RPM redline

124 @ 5600 RPM

Believe it or not some engineers forget about this, and as a result that counts. This car proved more buying one.

and trunk buttons next to the seat, a the driver. The Saturn on the other ing it is being sold for about \$13,000 leather wrapped and adjustable band has all instruments visible at Saurn of Daytona. If you are in steering column. Also, the dash was through the steering wheel at every the market for a small to mid-sized angle. A breath of fresh air from the car, very simply put, you would be a

The bottom line (Saturn SC)

Transmission

fool not to at least test drive the All in all it is the fabutous drive Saturn. You will probably end up



King of the road ... The body of the Coupe is Saturn's and nobody else's

122 h Iba @ 4800 9.5:1 compression

Top end......105 mph

Second .1.423:1 1.032:1 Final drive ratio..... ..4.060:1 Optional Automatic 0-1320 ft. 16 sec. Second 2.526:1 0-25 mph. 4 sec. Third 1.030:1 0-95 mph. 28 sec. Fourth 0.700:1

Miscellaneous

Estimated MPG

Manual......24 / 33 Automatic......23 / 32 Fuel capacity......12.8 gal.

Turning circle.....38 fti Wheel base......99.2in.

P195/60R15 87H Firestone Firehawk GTA's

drum breaks Stainless steel exhaust

Front vented disk / Rear

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Alpha Eta Rho

by Matt Hopkins AHP Historian

Gobble, gobble, bobble! Yeah that's right boys it's just about nurkey day. I hope everyone has a relacing vacation. We all know how well deserved these two measly vacation days are.

Ritual this past weekend was fantastic. Of course, it always is, I'm sure everyone had a great time. derful Thanksgiving day, word!

Sigma Chi

by Jack Snyder Chapter Writer

My fellow Brethren! The torch is passed! May our Beaver do us proud. The semester is coming to and end and I've compiled a list over the Fall of things that make the Pi's go Hmmm!

Will the Red Cross give the kid a positive?

Flatch, does John Denver have a gns mask?

Will Bruiser wash his face with Nair again?

Will Squirrel learn to respect my flame thrower?

Did Cowboy really win the lottery and move to Jamaica?

Will the Pony car and the Ponch mobile have it out? Saudi hopes so: Will Opus take a bath in Bruiser's

Will House ever shut up? Will Dino do the shampoo thing?

What is stronger; Sloth's engine or stereo? Have Gordo and Ernie been sec-

ing a little too much of each other Intely?

Will someone tell Calvin to take his nice pills?

Congratulations and welcome to the new brothers! You have finally made it. I'm sure this is the beginning of a lifetime of brotherhood. Congratulations guys!

Well if there is nothing left to say, I must leave you with these words of wisdom: Eat a lot, get all bloated and drunk and have a won-

Will Disco ever come face to face with Chuck?

Will Limit get his chair out of the

dumpster? Will Stealth's kids have a New

York and French accent? Will the law ever catch the

beaker? Will the law go to the bank for

the address? Will Archie be the next Mr.

Goodwrench? Will my little bro take my advice and have safe sex in the Volvo?

Where the Hell is Haas? Will Vivarin scam at the shack

In Alumni news Brother Gary Grascela has been chosen for the U.S. power lifting team. The beloved Cherry will be in town this weekend to conduct a chainsaw safety seminar at the house.

A special thanks to Q-Tip for getting the smell of "FISH" out of the house. As a final thought, who needs a missile or a bus when you got a BAKHOE on layaway.

A final note: Happy Holidays to all our fraternity brothers.

Delta Chi

by Gern Blanston Club Writer

We would like to apologize for the brief hiatus in our article. Our weekly writer has been recovering from a brutal attack by an animal rights activist. I would like to thank the tynch mob for catching and trying the victim. The charred carcass another week.

The Risk championship continues, with Boyd ahead two games. Steve is in second with one game. I would like to wish everyone a happy Thanksgiving. Remember it's better. Your help is greatly appreciated!

to cat than be eaten, well turkey that is... Congrats to our new officers.

Maybe we'll get somthing done this semester, like the CMR's, A big THANK YOU to Hank Tophey for stopping by and spreading his wealth of knowledge on us and the city of Port Orange.

The weekly BBQ went off withwill be on display at the house for out any hitches. Shroom pizza for everyone who went to Norms.

> We would also like to thank cermin members of the Avian staff for helping us out from time to time.

Clubs Policy

All articles must be type-written, double spaced or on disk format (unformatted in Microsoft

Deadline for submission of all club material is Wednesday at 5 p.m., one week prior to publication.

Photos may be submitted with club articles. All submitted material becomes property of the Avion Newspaper with the exception of disks.

The Avion Newspaper reserves the right to edit all submitted copy. For more information stop by or call the Avion Newspaper office at (904) 226-6079.

Ninety Nines

Congratulations to these 99's women pilots for passing their progs this semester.

Erika Anderson-Instrument Laura Brewer-Instrument mid-

Evening Dupre-Instrument Jennifer Hibbard-BAl Danette Lafflin-BAI Michelle Mand-Commercial

Tara Meikle-Commercial Ellen Rosenzweig-Private Alyssa Sudlow-Instrument Jennifer Warren-Private

Tara Wojdyla-200 commercial

Great flying girls! And for those of you 99's who slao should have been mentioned, let us know and you will be in the next issue! Have a Happy Christmas Break!

Riddle Riders

by Aaron Vogt Club Writer

The Road Rally/Poker Run held on Sunday the 24th was a complete success. The weather, although a little on the chilly side, was excellent for the 93 mile scenic route. Members from at least five local clubs, as well as a few students showed up to try their luck at drawing the winning poker hand and following the route directions Jerry "Ski" wrote up. At the end of the ride a free lunch was offered and the prizes that were donated by local dealers were handed out.

The best hand and the 1st place trophy went to Jennifer Byers, 2nd place went to Jay Going and Suc

Burrell won 3rd. All in all everyone had a great time and a nice donation was raised to benefit the Motorcycle Advisory Council.

A round of applause should go out to all the Riders that put in the time and effort to make this event possible. Next year let's remember to bring something to do while walting at the check points so we don't get accused of loitering.

A special thanks to Jerry "Ski Man" Szulinski for organizing the event and pulling it off with success Jerry has been in the club for several years and has contributed much time and effort to making the club fun for all. This is his last semester and we'll miss him.

AAAE

by Chris-Olvin Santiago AAAE Club Writer

Bill Robinson, Vice President of Corporate Affairs of the Learjet Corporation visited the Embry-Riddle campus on November 21 and gave a presentation to AAAE club members. He presented the history of Learjet Corporation, from its meet the demands of clients, beginning to the current status of the corporation. This company introduced the first business jet built in the United States.

As Vice President of Corporate Affairs, he creates a linison between the Learjet corporation and its consumers along with government regulating agencies. Dr. Trnavskis, advisor of the club was present.

Mr. Robinson presented slides of the new aircraft being built. He explained that Learjet is returning to profitability after a slump in sales and that the corporation is brought under new ownership by the Bombardier Company, Learjet is also increasing their fleet of jets to

Robinson,"Businesses want more from their aircraft manufacturers,"

Lastly, he went on by answering questions to AAAE members, This presentation was a soccess!

AAAE will be holding a brief! meeting December 5 in room E-611 at 7:30 p.m.

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leave. And the maximum stay is 7 days 6 nights and must include a Saturday night.

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For just \$55 a year, the Card gives you all these savings. And it's easy to apply Just call us (have your bank address and account number on hand). What's more, with our special student offer, it's easier to get the Card now while you're still in school than it may

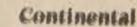
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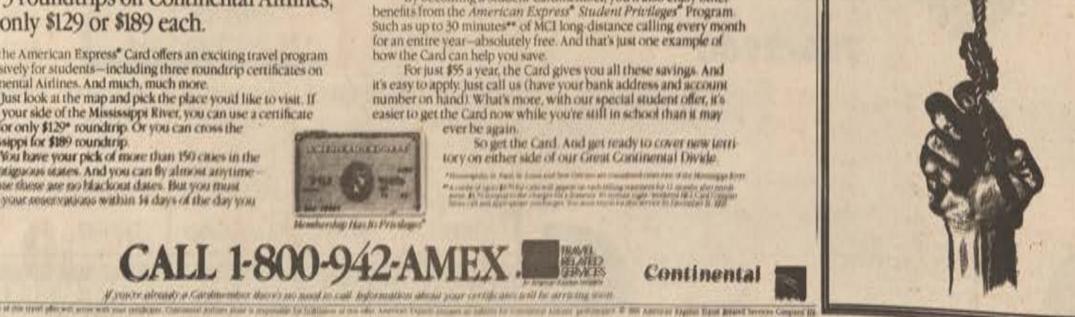
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Monthorship Has Its Privileges

Wreners editionally a Catalanomium that is no month to easil information about your certification will be drowing want.





U. S. Air Force Graduate Student Summer Research Program

The AFOSR is seeking 100 gradunte students in technical fields to join its laboratories' dedicated research staffs in pursuit of solutions to critical technical problems. To be eligible for the Graduate Student Research Program you must be a US citizen, hold a bachelor's degree in an appropriate technical specialty, and be currently enrolled in a graduate dgree program, graduate students will be supervised either by a Faculty Research Fellow or by and Air Force laboratory scientist.

Participants will work at an Air Force Laboratory offering state-ofthe-art equipment and facilities, for 8 to 12 weeks between April 1 and September 30, 1992. Payment for a 5-day work week will be \$380/week, and expense allowance of \$36/day and reimbursement for a round trip. The deadline for applications is April 1, 1992. For more information, pleases contact Mrs. Karen Faris (X6381) or Mrs. Valerie Riley (X6319) in the School of Graduate Studies and research.

Accidents (Continued from page B2)

"It was one hell of a snowstorm that he flew himself into. He was above it, (but) lost his engine due to induction leing and had to come down through it. . . . He maintained wings level and actually flew it into the trees controlled.

The pilot went in search of assistance the following day. Three men on snowmobiles headed toward him, and he tried to catch their attention. I'wo of them passed by, so he chose to assault the hast man, pulling him off his snowmobile in order to stop him.

As snowmobiles will tend to do, the third man's turned around, and then ran the pilot over. "This guy gets run over trying to be saved," Feith joked during his presentation. The pilot was not

"Those are the more humorous accidents that I run across." Feith said, "There are a variety of

others, like the Mile High Club. . . . One that I investigated was an older gentleman and his sec-

The airport fire department found a woman buck naked in the front seat of the Cessna 182.

Feith grinned, saying, "It's hard to interview those kind of people . . . How do you bring up, 'Why was she in the airplane with no clothes on?' An embarrassing question, especially when "That's why he fared so well," Feith pro- the female sitting in the right front seat is not your wife.

> The most sobering part of Feith's presentation was an audio recording of the communication between a pilot and an air traffic controller.

> The pilot, not much older than the majority of the audience, told the controller, "I'm in weather." The controller said he was not reading any weather on his radar screen. Feith commented that, if a pilot says he is "experiencing weather," the controller should believe him. But the controller did not accept the pilot's claim.

His aircraft icing up, the pilot asked to be cleared for a lower altitude. However, the controller told him to go up, not down. Though the

pilot stated that he could not go higher, he tried to increase his altitude, and his engine stalled.

All the controller was asking the pilot during the three minute conversation was, "What's your & ultitude?" even after the aircraft stalled.

In moments, what the audience heard was a young man losing control of his aircraft and himself as he plummeted downward, knowing hewould soon be dead.

After the tape stopped, the crowd was silent. Often pilots will not declare an emergency, partly out of ego. This pilot never had. "Ego has got to go out the window" and one must do what

is required when a problem comes up, Feith said. Toward the end of the tape, the pilot stated, "L. need some help up here."

"That's a fatal mistake of pilots," Feith explained. "No one on the ground can fly the plane. . . . The only one to help them is them-

That's why Feith stresses the need for all pilots to have a professional attitude.

The Avion is looking for photographers for the Spring term.

Requirements:

Skill in taking photographs

A steady hand for cropping photos

A sense of creativity in photo-taking

Knowledge of printing and developing

CONTACT: Brad DeMay, Avion Photography Editor, at 226-6079 (the Avion office)

Don't forget to be involved at Embry-Riddle.



WERU: the Broadcast Club to end all broadcast clubs, would like to make a small announcement. Thank you for your support. Merry Christmas Break. See you next year.

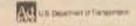


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by Gary Larson

Calvin and Hobbes

EACH OF US HAS TO FIND A NEWSPAPER ABTICLE READ IT TO THE CLASS. AND EXPLAIN IT

JUST PAT ONE OVER EACH EAR, AND ONE OVER YOUR NOSE

YOUR PROBLEM IS YOU'VE SOIT NO COMMON SENSE

IF WERE JUST GOING TO DIE WHAT'S THE POINT OF LIVING!

WELL YOU'LL HAVE TO WORK PRETTY HARD TO GET A

MILLION DOLLARS

by Bill Waterson

SPACE ALIEN WEDS TWO-HEADED

GOING TO BE UNIVERSANT AROUND HERE!

TO IGNORE IT

WELL THERE'S

KHOW MOKIN THAK TO

CA WEEDIN

JUST WANT

TO INHERIT IT

BOX. MY LUNCH BOX SEEMS LIGHT.

ELVIS CLONE

THERE'S

NOT MUCH

EXPLAIN

WHAT ARTICLE DID

AN ELEPHANT' HA HA!

I'VE GOT PLENTY OF

HOW ILON

YOU CHOOSE



UCK TAHW XOOL CAN DO WITH











ANCHER WAY TO

TELL WEN YOU'RE ARED'T TO SET THE LONGERT PRISON SINTENCE EVER HANDED OUT FOR

A MOVING VIOLATION









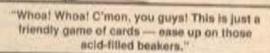




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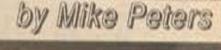
Oh, yeah! Well, I'd rather be a living corpse made from dismembered body parts than a hunchbacked



Early checkers



Mother Goose and Grim



DARN, JUST WHEN

CHOLESTEROL DOWN!











+ Autos for sale

1913 Cavaline, stereo with graphic equalities, mew velvet interior, no rust, new paint. Must self ASAP. I am going away forever, Only \$950. Call Chris 254-8911.

1979 Trans Am, 4 spend hurst, Post, rans and looks good. \$1100, call 274-2515 or box

1973 Triumph Chopper w/ Springer front-650 cc. nuts great! Low milesge, beautiful metallic purple, \$1250, see Linda in SGA or Excito45

1978 Chevy Malibu Landau, \$1750 OBO. Per suntoof, PS, PH, AT, CC, SS rims, new paint, AM/FM cass, or CD, V-8, rons and horici great! Call John at 761-7440 or 756-

1982 Manta RX-7, good condition, \$2400. Call 761-1310.

1956 Pontiac Surbird, automatic, air cond. power steering and brakes, AM/FM digital causette stereo. Excellent cond. \$1850. Call 210-0013

1984 Nixan 300 ZX 3+2, 5 spd., mist cond., inside and out. \$3850. Call 248-2473.

1969 VW Bug, runs great, rebuilt angine, needs minor work, 5600 OBO, Call Chip

1984 Red, sporty, Buck Skylark, automatic, new battery and tires, very good running consistion, \$1800. Contact (904)-761-5620.

1979 Honda Preinde, black, 5 speed, Must sell, graduating, \$600 OBO, Call Brem 760.

1988 Ninja 600, looks and runs great, 6700 mi, asking \$2700. Comact 7840.

1983 FJ 1100, Vance and Hines exhaust, new tirer, great condition, \$3000. Shoci belinet inchided. Call 257-7707 or box 3341.

1988 Kawasaki 550 Jet Ski, just professionally rebuils, anything that spins is brand new, \$1000 OBO. Must sall, worth wer \$1600, Call Mark 756-7965

→ Roommates &

For rent, available Jan. 1-92, 2 bdnn, 2 bath, spacious, 5495 month plus electric, cable, plumi. Washes/dryes hook up possible. Purchase washer/dryer \$300. Conses Jeff or Nur at 257-9648.

Roumman needed to share room, must be stean, \$182 month plus 1/3 milities. Call Paul or Thoy at 760-9545.

Roommates wanted to share private boose, 2 miles from school, 2 sooms for rent 5200 monib plus utilities. Carage, washer, dryer central heat and air. Call Alex or Rich at 258-

Response wanted, own room, 1/4 electric, your share of phone bill. Call 274-1984.

Recommate wanted. Female recommate wanted to share a 3 bedroom, I buth, I block from beath in Daytons Beach Shores, \$160 per month plus 1/3 utilities, first and last months rent plus \$100 security. Will be available Dec. 1. Please contact Suzi at 767-8568 or box 8032 if interested.

Room for rent in modern 4 bedroom home Oregand beachaids. Pool, pool table, satellite person leaving ERAU, \$185 plus 1/4 unlines. CallEd 441-5070;

Room for rent, furnished, \$200 month, includes all utilities, call (904)-767-2966.

Roommate needed, must be responsible, manine and very tidy. Lake Forest, 3 bdrm., 2 bath, washer, dryer, tennis, raquerball, pool, familis room. Rem \$233, 1/3 utilities. Room available Dec 18. See Sean at the Avion or call 239-9541

One accommate wanted for luxury town house in Dilican Bay, available 1-1-92 or sooner, 3 bodroom, 2 1/2 bath, modern kitchen: Micro, Dichieusher, washer/dryer, 1 cur garage space for 2 in driveway, vaulted ceiling-ceiling fao i; both coommates are flight students, 5223 mo. plus 1/3 utilities, call 760-2075 ask for Marcus, between 12-13-91 and 1-1-92 call (406) 395-3270.

House to share, new! Quint Port Orange neighborhood, fully furnished, washer, dryer, micro, cable TV, central air and heat, 8 min. from school, 3240 per month, 1/3 autities, \$40,756-0419 ark for Paul.

Room for reat in Port Orange Foxboro, inclindes washer, dryer, kitchen priv, fumish quianal, 10-15 minutes from school, cable TV; non-smoker preferred, 5285 per mo., pochides utilities. Call (904) 756-3529.

+ Misc. for sale

Igumas-522. Call 253-6165, 12 p.m. 7:30

For sale: IBM clone 386 SX- 16 Mhr., 40 meg. handdrive, 1.2 meg 5 1/2' drive, 3.5' drive, Lafitech 3 button mouse/driver, 14' VOA monitor w/Paradise VGA plus card, loaded w/software: MS Dox 4.01, PFS First Choice, PFA First Publisher, Sign Designer, Enable, Rorland Turbo Pascal 6.0, 11 games including M5 Plight Sim 4.0. Only 8 months old, asking \$1500, Call Asron Wolfe at 258-

Portable slate top bar for sale with matching heavy pine bar stools; Misc lamps, pictures, answering machine, clock radios, misc, items, call, may have what your looking for Lori

Textbooks for sale; PS 201/202-840, SS 220 -525, Ec 200-\$15, C5 235 w/disk-\$30, Air force uniform items: 2 15 1/2 SS shirts-both 58, 32R single knit trousers-58. Double knit 32R trousers-\$10. Ladies gold ring-\$45. Contact Jason box 6036 or 252-9148.

Car audio; Sony NR 7500 deck, CDX A30, MTX component box (3 way), Pyle A400 amp. No reasonable offers refused! John 756-4320 or 761-7440.

For sale: "DP Body Tone 300 rowing machine, good condition, does many exercises, \$70. Call Chad 756-1773.

King size waterbed includes heater, mattress, stain pine frame, bookcase headboard, perfect condition \$150, 13" Mitsubitshi color television w/rumote, on screen display, sleep timer, few months old, perfect condition, \$200. Contact Mike after 6 p.m. 255-9186 or box 8649.

For sale: study desk, mattress, 14 inch color television, sleeper sofs, chairs, two tables, all at reasonable prices. Call 761-5620.

125w Sony Stereo system, somi-auto immubile, dual cass., eg/emp, 5 CD revolving player, 200w speakers, remote, less than I year old, most sell! Originally \$100, a steal at \$300. Call 767-0351.

Bicycle for sale: Ross men's cruiser, morifice: iii 575, Call 767-9400, 7 a.m. to 1 p.m.

For sale: 4 Keystone Classic rims (5 bolt uni.) (2) 15X8 and (2) 14X7. Great condition w/extra set of lognutt and tires, \$200. Must mill. Call Steve 760-9816 or box 6366.

Single bed (box spring, mattress, metal frame), excellent condition, 550 OBO, Call Steve at 760-9816 or box 6366.

Senior Sale: Fisher self amplified, 3 way home stereo speakers. Great condition! Must self! \$75 OBO. Call Brian at 258-3714.

Ticket to New York, round trip, from Daytona Brach to New York on Dec. 13, 1991. From New York to Daytona Brach on Jan. 1, 1992. Contact box 5531.

Going back to Call. I way ticket - Male, DAII to DAR- B.O. for Dec. 17. ASA for 761-

For sale: One way licket from DAH to Newark, Friday Dec. 13, 5100, OBO. Contact me in box 81178.

One way plane ticket. Daytona-BWI. Anytime in December, Call Jarry 761-1734.

Airline ticket - Daytons to Newark to Buffalo. Doc. 17 one way male tickes. 5150. Call and leave message at 274-3220, ask for

Airling ticker to Porland Or. Leave Dec. 11 return on Jun. 6. Best offer, phone 760-7098

For sale: Surf board 6'6", hot full color, "CH" triffin in great condition, extra light with new trac top, call Chad 756-17/3.

For Sale: new men's ton speed "Greg LeMond" racing bike, great gift idea, \$100, Call Chad 756-1773.

Van Halen fans, one extra ticket for Sat. Dec. 14 show at Orlando, Excellent seat, \$30 OBO, ride provided, leave name and number in box 2541 or call 238-1932.

For sale: TV color 19" Sharp Linytron w/cable box and filture only \$100. Big round cushion chair only 550. Glass round table only 530. Call Takit at 761-1976.

Miscellaneous

LEARN TO FLYI

Get your pilots license or continue with your flight training. Quality and experienced instruction at low rates. Aircraft rental 35 per hour. Contact Jack "CFII" at 756-1494.

Founds one gold, circular earring by done I on 18 Nov. 91. Contact box 209 for return.

Coming back from X-mas thru Raleigh, NC or area? I'm looking for a ride on Jan 4 or 5. Willing to pay my share of gas and possibly drive, Call 248-0711, ask for Eather, or box

Am you driving to Texas for X-mas break? I am looking for a ride if you would like someone to split half the driving and gas. Call Januay at 767-8258 if you are interested.

Is anyone driving to Texas for X-mas? I'm willing to pay for half the gas and half driving. If interested call Jenny at 767-8258, Serious inquiries only. You can earn over \$5000 a month and ordy put a total of 20-30. hrs. to earn it. This company is #37 in fortune. 500 and is a blue chip company. Let me tell you how. Initial investment is \$20, guaranteed return. Call 734-4592 and ask for

WASHINGTON D.C. I will be flying from DAB to Andrews A.F.B. on Fri. 13 Dec. to Wed. 18 Dec. I have 2 seats open in a PA-32G Saratoga. Price is 5150 per seat coundtrip. Call Dave at 756-5760 and leave manage.

Going home for X-mas break? Need a ride? I will be driving to Wash, D.C. on Dec. 11, If anyone needs a ride up there or anywhere on the route contact Tammam at 760-7728 or box #200.1 have room for 3 passengers.

Whemever found my Technical Writing, fifth edition book in E-604 on Thursday 11-7 between 11:40-14:30 please return it to me or lost and found. Besides the fact of paying 552 for it, it contains vital notes for Pratt's Analytical Project. My name is on the front, inside cover. Thanks.

Hey! Do you have some son of odd foreign ar that won't not right? I work on all or any foreign cars. Specializing in Bosch fuel injection and Volvo repair, Jon's mig welding and Volvo repair. Call John at 258-5160.

Quality SCUBA instruction specializing in advanced Diver training. Call Ian Neal at

Looking for a way home over Christmas? I'm driving through Atlanta, Chattanooga, Nadwille, Bloomington, Rockford, Madison, and stopping in the Twin Cities. If you are heading to any of these areas, and are interested is sharing the driving and expenses, contact Kate box 6748 or call 788-6679.

Reasonable flight instruction. Private, instrument or commercial. Best rates around the area. Plexible schedule, Plane rental \$35 per bour. Contact Tom at 677-6895, CFIL

It really does show one's incompetence and ignorance when one must defend one's own position by resorting to and referring to obscenities. Lighten up people, and while you are at it, you might try to do a little growing up as well. That is, if maturity is not too difficult or a concept for your intelligence to comprehend. THE BRAU GENTLEMAN

DOWNERS

You're off to see the Pajama Jammy, in your banana peels and your chamois! VOTE SLIWA

LETO ATREIDES II How much spice does it take to buy an Iduho Ghols? ANTXIAN

P.S. Wanna buy a No-ship?

SANDMAN No more yankee my wankee, the donger need POUNDCAKE

LETO ATREIDES II At last! Another worm head! Let's toxst some spice tea to some real science fiction. It's more intricate than the average Trakkie can DUNCAN IDAHO (AKA STILGAR, GURNEY HALLECK, BASHAR MILES

P.S. Didn't anyone ever tell you not to play with the Sand-Trout?

IDENTIFICATION Engineers hide and draw airplanes all day. The AMT guys plan to divide pilots from their pay. The business folks worry about money and such. You can always tell a Riddle pilot but you can't tell him much.

MR. AND MRS. MORRISON Tongue sandwich is not on the menu. Watch out for fire anta. Gidee Yup cowboy. THE PEANUT GALLERY

TO THE EQUUS CAST Brnak a leg!

CLASSIFIED AD POLICY

 Non-commercial classified advertising and personals are free to the student body, faculty and staff of Embry-Riddle with 35 word limit.

All other non-commercial advertising is \$10 with a 35 word limit. Each additional word is 10 cents.

Commercial advertising is available through the Avion advertising department, at 226-6051.

Classified advertising is carried out by filling out a classified ad card in the Avion office. Only one classified ad per card. Name and address

of advertiser must be included for the ad to run. Only paid ads will run for two issues and may be

renewed by filling out another classified ad card. No classified ads will be accepted over the phone. For more information, stop by or call the Avion office at (904)226-6049.

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-)-Personals

Are you the instructor? Not! You're not a 'rlut' shit. Hut I still wish I could sign up for a inter session. Maybe I could teach you something) Sorry, but a girlfriend needs to have dreams. Lawe Yal

BLONDIE Do you need my lumicuff's again. GILLIGAN

So much hostility everywhere, threats are made but who really cares. Poor Woody's in an awful jam, Trekkie's shot down by a Riddle scam, the duckslinger being hunted down, poor 'samples' read them up and down, why don't you all just come around, look in the mirror and calm down!

TO THE RESIDENCE OF DORM I Thou shall not worship any false gods before

I want to speak to John Big Bootey. JOHN WARFEN

3RD WEST NOCTURNALS.

SLUT 69 Q. Where are they? A. They're everywhere! It's excellent! SLUT 6

To blond in Dodge Colt from N.Y. Did Ja get my noto? Can you believe it?

Yes, ERAU does give out more permits, then they bust you or put wheel locks to solve their blunders.

Di's Maytag Laundry, voted best in Daytona The bant for a dwelling for the immortals is on, Remember, there can be only

> Oil your foil and grease you piece, but don't get caught by the lavert police. (Look it op!) LONGFELLOW

TO OPEN MINDED "GIRL" Seems you have some confined followers!

SLUT 411 Sony I was so rude lost Tuesday night. Will you forgive me? It'll never happen again.

GIOVANNI The name's almost as attractive as you, SLUT 6.

D'ANTONI Thanks for the opportunity to get to know you (being the Grape Ape you are). If you were any sweeter, I'd salivate! A HOT TIME

The E.P. are watching you! G/B.W.B.

Dukey! Wanna go tree turning?

PARROT HEAD

LOOPY BOYS

THOMAS

Happy 21st Birthday. Are you mady to party? M.F., M.H.LP.

SHASHULL Without you my heart will wander, without

purpose or me aning for elemity. Together our souls can travel to the stare - guided only by my love for you LOVE, ROMEO

I tried, you failed, you lost more than you will ever know YOU KNOW WHO

JAYLIN If great minds think alike, and we're of one mind, can I harrow the brain, I have tests to take (contact box 6875).

We not only hate that piece of crap you call a car, we wish that you would take a shower and do your laundry.

SAMPLES We agree w/ the AMT chicks THE REMAINING RIDDLE CHICKS

AMT CHICKS

FROM THE ORIGINAL DAYTONA MASSES

Why do you alienste yourself from society in such a manner? You obviously come from a severely dysfunctional home. And with mgards to referring to me as chicken sh-t, perhaps in the future you should not make comments that you cannot physically reinforce, Catch my drift?

Your voice has filled my soul with warmth and kindled ablaze a spark of light that out shines the brightest of lights in the radiant heavenly nights! THE VOICE BROTIC

TIFFANY JEAN Hi honey, I love you! YOUR DEAR JOHN

CUEBALL You started the night off right. You took her for a ride in your truck. Everything was going alright until the proceeded to upchuck! MAN IN THE BOX

Thank you Avian staff, for my last ad. Sold my vehicle! Sure appreciate your help.

JTK(BABY) I'm really glad we are together and I hope we will may regether always. MAMA

Drink... Drink from the chalice and you shall be reborn... And the land with you.

TO THE HANGMAN You may have gotten my cat once, but the kiny still meows and you will never find her again no matter how hard you try. BETH

DEAR DAWN P. Mr. Illue is none other than Chris Bates. His room is 255 Donn L.

CHAMP DODICAN'S DEEP THOUGHTS Sometimes I like to see just how small my special friend Little Richard can get. So, I put him in the freezer. But, he's so small already that by the time be's nice and frozen he can fit inside the tip of a lead pencil. BY GUBTILE AND OCAT ONUT

Stock the four, for we can make a difference and the waves we create now will soon be radio," Thanks for an awesome semester. This club has made a difference.

Stop playing head games and ler's get physical. You've been waiting.

YO KENNYI Sonday morning? BRUISER

HEY KIDS Thanks for all due support on the Housing Eval's. Who do I cut the check out to? Leve you much. **GUMBI**

SHA-WEE There's a hole in my heart that can only be filled by you. MICKEY

VIKING PRINCESS What's life without fliration? Boring, Life without temptation? Too safe. What's a life without an attitude? Too guilible, maybe? You're still fun to hang out with. V. PRINCH

TO THE BASKETBALL TEAM FROM: WOMEN IN THE WEST

MR. BLUE Sorry I never answered. Who are you? CHEERLEADER IN SS120-01, PS101-02

LOVE KIMBERLY(GUESS WHO?)

Go Miss Packettl YOUR FAN CLUB #6385

TO HUF (#54)

EMPEROR LETO ATREIDES II Well, I'm lost off of your golden path. I knew I should have turned left at Albuquerque. All the Dunes look alike out here. DUNCAN IDAHO P.S.A tout to melange!

I couldn't ask for a better friend because I know there could never be one better than you. Thanks. Love ya lots.

TO THE TWO MORRISON'S PEOPLE CONNECTED BY THE TONGUE Your performance outside the U.C. turned my stomach! BUSTER HYMAN

I hope to meet you very soon. You won't be disappointed this time. ANOTHER SECRET ADMIRER

Sista, sista, let's network! Come on girlfnend, do you believe in love? Join us anytima!

WOODY Watch your A ... The women around here are fine. Obviously you can't me clearly with that : one eye of yours. Shut your mouth or we'll shut it for you. Ladies, the real gentlemen are

AARON II. Phone tig, you're it!

TEASN AND PLEASN #1023

FALL 91 PLEDGE CLASS

TO THE GUY WHO WORKS AT GB There's a care of Beer and a king size waterbed waiting for you...Smile!

KAREN AND SHELLY Wanna gut some slonuts? Thanks for dinner. TANDT

When's the next dinner?

ONE IN STUDENT ACTIVITIES This somester has been great. See ya next ONE IN SECURITY

Helfo, Hello, Hello to all you pilot type persons. This week you have the pleasure of listening to my wonderful self, Don Karnaga! I know Baloo is bere, so if you are listening Baloo, coming of not I am ready! MY HANDSOME SELF

SCENTS FROM MR. GATTIS Joker: Just remember pomography vicumizes women and children. Vinnie Vito: But what about animals?

3.0 NORTH Get real! You guys stink. No. Donn 1 residents don't respect you. You sorry saps. THE RESIDENTS OF DORM I

BUSTER HYMEN. Here's a little ditty I got to tell about a big old dode ya know so well, give him a few Huda and his belly is getting fatter, she could be related, it jost don't matter YOU LOOKING AT MIL

3.0 BAD BOYS FROM RAINTOWN BOY-JRD, WEST

DEAR 91-92 3RD NORTH We of 90-91 3rd North have decided that your increment self-righteous attitude is doing nothing more than contributing is the destruction of the 3rd North legend. When you're the best you know it, and need not show it. Please cease in your ignorance and realize that the camber you display is making a mockery of an aura that many 3rd North before you worked hard to create. Don't make us have to come up there and thow you sallies how to drink! (Funnel or Nothin) SINCERELY 90-91 3RD NORTH

TTSAYS Getting a fat chick drunk is like driving a Winnebago with no brakes?

SANDY It's too had we never gut out somewhere for dinner, or something. I wender whose was the A PAST NOT SO SHCRET ADMIRER:

The Earth moved. The angels wept. The Polaroids are in my other cost. LOOPY BOYS

Dukey, how about some tree turning

LOVE ROMEO

JAYCE

Each moment I have without you is an eternity of desolution.

TO THE DELTA JUNKY Congratal You made it? Good luck at Joe's Grad school on 33rd and 3rd (right next door to Joe's Law school, privately funded by "Tony L" and the sandbox). Does MRA stand for "More Busing A -?," I'll let you know1 Remember, if its nex Delta. IT's CRAPI

SALLY HOFFINGTON No more lousy poems, just straight talk. I'm sorry if I offended you. At least give me five minutes to explain my intentions. You know where to find me.

P.S. Can't wait to see the phone bill!

TO JIM C. Here's your message!

POETIC PEN

TO THE AVION STAFF We made it throught another annester and the computers still work!

Hostages (continued from A9)

The White House was enthusiastic about the hostage release. Marlin Fitzwater. White House Preas Secretary, thanked the governments involved in the release, as well as the United Nations. Moreover, the White House went on to say that American hostages "must be freed at once..." Fitzwater also called for a full accounting of hostages who have died while captive and the return of their remains.

Syrian Foreign Minister Farouk al-Sharan expressed his hope that other hostages would be released this week.

THE AVION

needs writers for the Spring semester after Christmas break!

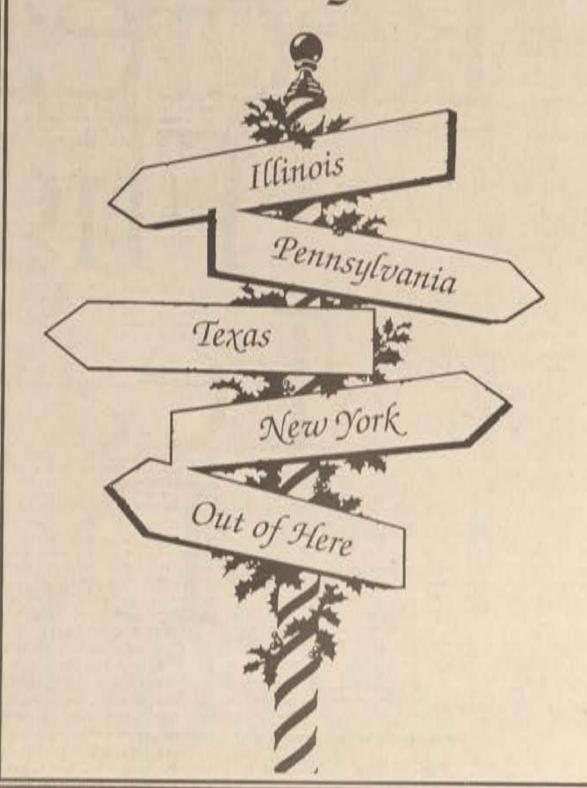
Look for articles on the environment, student motivation, campus issues (like new aircraft, what's good and bad in what we pay for, and more), and design changes in the Spring term's student newspaper.

THE AVION

we're yours. Use usi

We're tired of doing all the writing.
Write us with your opinions and suggestions in the Spring! Tell us what's going on, at 226-6049.

Home for the holidays!!!





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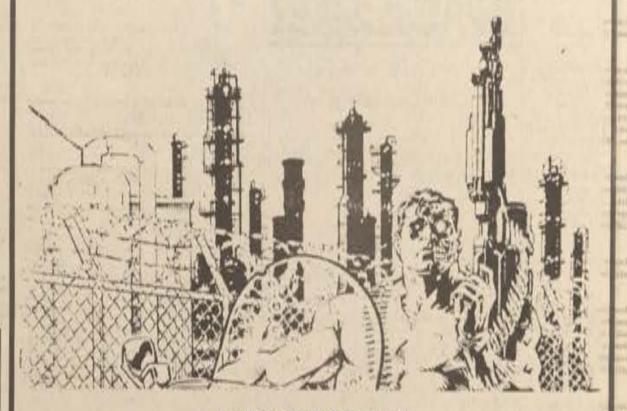
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Sunday

Laser Karoake Night.

Tuesday

Two for Tuesday = \$ 2.00 well drinks until close ERAU Night = .50¢ drafts for ERAU students, \$3.50 Pitchers of Draft,

Wednesday

Country Music Night with Station 98 Frog.

Friday

Waves Hungry Hour 5-8 PM \$2.00 Cover - Hot & Cold buffet, \$2.50 well drinks, \$1.00 draft beers, and live entertainment. Live music by "Just 2 Much" 10:00 PM - 2:00 AM, Top 40 dance & rock music. \$1.75 Coronas and \$1.00 Tequilla Shooters.

Saturday

Live music by "Just 2 Much" 10:00 PM - 2:00 AM - 1-100 host the "Heart Throb" game beginning October 12th.



Take a break from the books and take off to a party ... A party just for you...ERAU Night happens every Tuesday Night with contests & giveaways and .50¢ drafts when showing your I.D. But every night at waves is hot! Dance to the latest sounds, enjoy great drink prices and live music every Friday & Saturday nights - so come to Waves tonight and make the right approach to a great night out.

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