

10-16-1991

## Avion 1991-10-16 (B)

Embry-Riddle Aeronautical University

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## Orlando Speedworld sees rainy day at the races

by James P. Johnson and Jason Bowers  
Mechanical Technology Writers

Sunday, October 6- Several members of the Embry-Riddle Drag Racing and Motorsports Club went to Orlando Speed World for a day of Drag Racing. In addition to the usual motorcycle and street class racing, a concert performed by Stranger, ugly car contest and bikini contest were scheduled to be held following the eliminations.

On the track at about nine a.m. there was a line of cars stretching for nearly two miles waiting to get in. Each driver paid a fifteen dollar fee for racing his car and spectators were charged ten dollars.

The next step for racers was to take the car through tech inspection, where a liability waiver is signed and the car is examined to make sure that proper safety equipment is in the car. In most street cars all that is required are seat belts. Once the car has passed inspection you

proceeded to the staging lanes. Time trials ran from ten a.m. to two p.m. At the beginning of the trials one unfortunate racer who was running nitrous oxide suffered a catastrophic engine failure. At half track a plume of brown smoke and the subsequent trail left by the burning oil was quite remarkable. Score: nitrous one- head gasket zero.

During time trials Drag Racing Club member Jason Bower ran a moderately consistent 15.40 second quarter mile in his '86 Mustang GT, and Aaron Bagg ran an impressive 17.90 quarter in his three cylinder turbo charged Chevy Sprint despite the poor traction. Aaron's times were better than most of the Corvettes that ran, one of which was in the high 18's. Even though their

times were consistent they both lost their first run when they red-lighted.

Poor traction was obvious due to built up

rubber on the starting line. Cars rear tires smoked on the leave but gained traction after hitting asphalt. The poor traction also wreaked havoc on motorcycle drags when the sudden bite of their tires had the bikes doing wheelies.

One psychotic bike racer did the quarter on one wheel at over one hundred and twenty miles per hour. Racing fans cheered the only Harley Davidson that showed up regardless of the fact that he lost the race by .15 seconds.

The low E.T.(elapsed time) for the day by street legal cars was attained by a Ford Courier pick up truck powered by a big block Chevrolet, running at 10.31. The lowest ET by any vehicle was 9.30 seconds by a non street legal Model A Ford dragster.

Due to impending rain the racing was stopped after the first round of eliminations, where seventy five cars had beaten their opponents. The concert and bikini contest were also rained out. However, the "Phlegm" certainly was the ugliest car there.

...the "Phlegm" certainly was the ugliest car there.

...a plume of brown smoke ...by the burning oil was quite remarkable.



Slip and slide... Two motorcycles sit and burn rubber in the trap. Motorcycles were the among the most affected by the by poor traction.



Phlegm... Without a shadow of a doubt, the most God-awful, ugliest car entered in the race. Ladies and gentleman, the "Phlegm."



Nitrous claims its first victim... Another unfortunate victim of over exuberance and nitrous oxide. This poor fellow can write off one of his head gaskets and an untold amount of other damages.

## Pontiac's 15,000 dollar, 3.3 liter Grand Am proves itself in test

by Jon Elcheberger  
Mechanical Technology Writer

Pontiac has taken their Grand Am and totally redesigned it in hopes of improving sales of their already best selling car. It all starts with it's slick new body style with wrap-around head lamps and tail lamps. Its hood line is angled steeper and side glass is more flush to give better aerodynamics, but also gives a tougher look to the Grand Am. The GT models also get additional treatment with flaring side skirts and 16" wheels.

The interior was not ignored in their redesigning process, which is probably GM's best feature in the Grand Am. Styling of the interior is current with the times, having a rounded type of dash that flows into the doors. However, it is the function of the new interior that makes it impressive. Column controls are easily in reach of the driver, along with the ventilation and radio controls. Standard on the GT models is rally instrumentation which includes tachometer, water temperature, oil pressure, and voltmeter (optional on SET models), which is a welcome improvement over the standard speedometer, fuel gauge setup. Like always the Grand Am offers



Get on and ride this Pontiac... Pontiac offers three different engines to move this puppy (left). Pontiac Grand Ams let the Japanese know what the term "sports sedan" means (right).



photos by Brad DeMay

comfortable seating and leg room for all its passengers, along with optional four doors for both SET and GT models.

Pontiac also decided to improve its engine line up by making the new Quad OHC 2.3 liter four cylinder its standard engine on SET models; output of the engine is 120 hp and 140 lbs-ft torque. The GT's

standard engine is the 2.3 liter Quad 4 H.O., which gives an impressive 180 hp and 160 lbs-ft torque, a suitable engine for it's GT models. Optional on both models is the standard Quad 4 and the newly available 3.3 liter V6. Both give 160 hp, but the Quad 4 puts out 155 lbs-ft, where the 3.3L pushes 180 lbs-ft torque respectively. A five speed

manual transmission comes standard with every engine, the Quad 4 H.O. getting a model with a close gear ratio. A three speed automatic is optional, except on the Quad 4 H.O. A possible limit in sales of the H.O.s are possible because of this poor decision (possibly the GT models as well).

The Grand Am that I was able to test

drive (courtesy of Billy Grubbs Pontiac) was an SET model with the 3.3 liter V6 and 3 speed automatic transmission. As I mentioned before, controls are easy to reach and work. I was also able to tilt the wheel so that I can see all the gauges. The ride of the Grand Am is smooth, and the suspension is able to absorb bumps and potholes without giving annoying bouncing to the car. Brakes on the Grand Am lack feel at the pedal, but with standard anti-lock you do not have to worry about locking the wheels. The V6 is a good engine with good low end torque, but I have driven an Oldsmobile with the Quad 4 and was impressed by its characteristics. It is a four cylinder that acts like a V6 and I would have preferred a test drive with the Quad. The redesigning of the Grand Am is a success with major improvements in function and style keeping in touch with the family buyers, but giving it more appeal to performance enthusiasts.

## Mercury's 3.8 liter Sable proves its worth in a test

by Joseph Perrino  
Mechanical Technology Editor

New styling and new attitude towards squeezing more power out of small engines has been the philosophy for American auto makers for the past decade. The culmination of this new attitude in the Ford Motor Company is inherent in the 1992 Mercury Sables.

Sables are offered in sedans or wagons, and each is offered in GS or LS versions. Both have V6 's with the displacement of either 3.0L or 3.8L. The 3.0L's puts out 135 hp at 4800 rpm and 165 ft lbs of torque, with a compression ratio of 9.3:1. The 3.8L pushes 140 hps at 3800 rpms and 215 ft lbs at 2200 rpm, with a 9.0:1 compression. All Sables

come with an automatic four speed transaxle.

In the test drive that the Avion performed (thanks to Daytona Lincoln Mercury), the power train proved to have some guts on the low end. Super smooth gear shifts leave you with impression that the engineers at Mercury were concerned about the more senior drivers. At stand still the acceleration is enough to make the front tires cry, even in the overdrive position. Shifting to drive was enough to get it to bite hard on the start and in low the car actually gave you the sensation of being pressed back in your seat.

All things considered, our acceleration results did not turn out

see Sable, page B8



Just set the cruise control at 85 and go to sleep... From the nose down the Mercury Sable looks impressive (left). Sables send foreign competition a message (right).



photos by James Johnson

## Indy racing reviews old engine specifications in favor of gaining competition

by Jon Elcheberger  
Mechanical Technology Writer

Currently, Indy Racing Cars have been using turbo charged engines with pop-off valves to regulate horsepower between the different engines. Anyone who has followed the Indy Race series has noticed that the only competitive teams are powered by Chevy engines. Since the number of these engines are limited, so has the number of teams that can have these engines. There are other teams that have good engines but can not seem to get an edge on the Chevy power teams. The number of teams at the Indianapolis 500 was down this year

because of the lack of competitive engines, the main reason Al Unser Sr. did not compete at the 500. With all these facts, there has been rumors of rule change in the future for Indy Cars by PPG and Cart.

The most likely change that has been rumored is the outlawing of turbo chargers. The pop-off valves have been under scrutiny by the drivers because they are set to be accurate within plus or minus a tenth of the regulated boost pressure. It makes a big difference in racing if one car is on the high side of accuracy and another on the low side. Going to normally aspirat-

ed engines would eliminate pop-off valve problems and would cut down weight and the complexity of turbos.

The other idea is to totally adopt the same rules that Formula One uses, which is the use of normally aspirated 3.5 liter engines. This would offer a wide range of different engines that are already in use in Formula One. Manufacturers of these engines includes Ford, Honda, Renault, Ferrari and others. These engines also offer different configurations, such as V8's, V10's, V12's, which would make Indy races more interesting. If PPG and Cart decide to

go to 3.5 liter engine rule, this would make the Indianapolis 500 more of an international race because of the involvement of more international engine manufacturers and the possibility of Formula One teams participation.

So will any of these changes make Indy Car racing more competitive than it is now? That is a question that no one can answer, but things will not get better with the current situation. Making Indy Car Racing into more of an international event seems like a step in the right direction. Look what Formula One has become, a very competitive race series that has international respect and sponsors.

...only competitive teams are powered by Chevy engines.



## 747-400 proving its reliability in service

by Todd Hughes  
Managing Editor

With the turned up wingtips, a 12 foot longer wingspan and the use of advanced composite materials, the 747-400 jetliner has the longest range passenger jetliner in the world. The 747-400 is considered the finest long range commercial jetliner by many top airlines. There have been over 400 ordered by 32 different customers to date.

Japan Airlines (JAL) has been the largest customer for the Boeing 747, ordering 104 since June of 1966. JAL also currently operates ten 747-400s and has another 30 on order. JAL operates the worlds largest fleet of 747-400s today which numbers 75 Boeing 747s.

In April of this year, Senior Vice-President of Engineering and Maintenance of JAL, Kimiya Nakazato, presented a plaque to Boeing honoring the 99 percent dispatch reliability record set by the 747-400. The record for all of the 112 other 747-400s in service is close behind at 97.4 percent.

It is fitting that the largest customer of the Boeing 747 would receive its 75th 747 in the year of Boeing's 75th anniversary. Lawrence Clarkson said, "Japan Airlines and Boeing share a rich tradition. Our past and future relationship could not be commemorated in a more appropriate way than delivering the 75th 747 to JAL in this historic year for Boeing."

EVA Airways, Taiwan's newest carrier, has ordered two 747-400s as they prepared to receive

their first two commercial jetliners, both 767-300s. EVA Airways, the worlds largest container shipping line, has placed orders for four more Boeing 767s.

Chairman of the Evergreen Group, Y.F. Chang said, "This marks a significant year for the relationship between EVA Airways and Boeing. As we prepare to operate our first commercial flight with the 767, we look forward to operating the matchless 747-400 in 1993 on our own trans-Pacific routes."

Air India ordered its first 747-400 on August 14 of this year. Air India ordered the 747-400 to accommodate India's growing tourism market. S.R. Gupte said, "We are proud to now add the -400 to our fleet, which provides us with the



Up and away... During the year of Boeing's 75th anniversary, Japan Airlines took delivery of their 75th 747.

highest standard in international-range equipment."

Boeing currently has a backlog of orders now totaling 1,730 jetliners valued at more than \$90 billion in current-year dollars. This backlog makes Boeing aircraft one of the most demanded commercial aircraft in the world.

## Dallas company helps airlines form wine lists

Dallas (AP) - Business has taken off for a Dallas-area wine importing company since it began helping airlines choose the best from France's vineyards.

Fongrenier Wines, based in the Dallas suburb of Addison, started five years ago by importing 500 cases of French wine.

That first shipment took a year to sell, said Mickey Stuart, president of the firm.

Now the company is selling thousands of cases to American and United airlines, which have increased their wine purchases because of international route expansions. The two airlines make up about one-third of Fongrenier's business.

Fongrenier Wines started doing business with the airlines three years ago and sales have grown about 20 percent annually since.

The company supplies American with 10,000 cases of red table wine and United with about 3,000 cases.

Last year, the company's wine won American top honors in an international competition in Business Traveler magazine for best economy class wine.

"One of the reasons we are successful is because we can deliver a quality wine to American for its passengers at a good price," Stuart said.

Fort Worth-based American has used wine consultants like Richard Vine, an enology professor at Purdue University, for 25 years.

"They wanted someone who could walk and talk with those in the vineyards in Europe as well as in the United States," Vine told the Dallas Times Herald.

He said international travelers have become more sophisticated about choosing wine.

"There is more of a wine ambiance from their travels in Europe," Vine said.

Fongrenier has one label, a Bergerac wine, on the market and is building vineyards near Bordeaux, France. Stuart also visits small, lesser-known vineyards.

"No one would suspect that a Dallas-based company would have strong connections with French wines," Stuart said. "That's all we do."

## Eastern Airline pilots suing the Airline Pilots Association for "Blacklists"

Miami (AP) - Hundreds of former Eastern Airlines pilots are suing the Airline Pilots Association, alleging they are victims of job discrimination caused by union blacklisting, a newspaper reported today.

One of the 267 pilots who filed the suit Wednesday in Dade County Circuit Court is Gary Greksa, a pilot who endured five months out on strike before returning to work for the now-defunct Eastern.

Greksa, a former spokesman for striking workers, is convinced that a blacklist - known in the industry as a "scab list" - is the reason he can't get work.

The alleged blacklist names pilots who went to work for Eastern during the strike that began in March 1989, according to a story in today's editions of the Sun-Sentinel in Fort Lauderdale.

Being on the list is especially painful for Greksa, who did not return to work until Aug. 8, 1989, days after union leaders urged

striking pilots to go back to work because they were in danger of being permanently replaced by new hires.

"I thought to myself, 'This strike is suicide. I can't do this anymore. I'm right about the principles (of the strike), but I'm beaten,'" said Greksa, 46.

Other Eastern pilots who crossed the picket line at the urging of union leaders are having the same trouble finding work, they said.

Other pilots suing include Ramon O'Neill, former strike chairman in Miami, and Larry Dunn, communications chairman for the strike in Miami.

"We have developed evidence to prove that the blacklist is the reason these pilots are not getting jobs," Miami attorney Myles Tralins, who is representing the pilots, told the newspaper.

"It appears that these people were told to go back to work by union leaders in August. They did. Now, none of them can find work." The lawsuit alleges racketeering on the part of high-ranking officials of the pilots association. It says the pilots were ensured amnesty if they returned to work and that the pilots

association offered to help pilots who could not return to Eastern, which eventually folded in January.

Instead, the pilots association "developed a scheme to defraud the people who went back to work" by printing the list of names, Tralins said.

John Mazor, director of governmental affairs for the union, said the union did not

make up a blacklist. If there was a list printed, it was not to be used for blacklisting purposes, he said.

"We do not condone the use of blacklists," Mazor told the Sun-Sentinel.

U.S. Rep. E. Clay Shaw Jr., R-Fort Lauderdale, said he was told about a blacklist by a former Eastern pilot and has offered to contact the Justice Department if such a list exists.

"I would guess it's illegal, that kind of behavior," Shaw said.

The Sun-Sentinel obtained a copy of what was purported to be the Eastern blacklist.

The list includes the writing of Jack London, titled "Ode to a Scab."

Written in 1915, the verse describes a strikebreaker as a "two-legged animal with a corkscrew soul, a water-logged brain, and a combination backbone made of jelly and glue."

Large numbers of Eastern pilots went back to work in August 1989 after Jack Bavis, head of Eastern's unit of the Air Line Pilots Association, warned the pilots that they were in danger of permanently losing their jobs.

Several days later, the pilots union held a vote, and the rank and file decided to continue the strike.

But about 400 of the 700 pilots striking in Miami had already crossed the picket line. The pilots strike did not officially end until November 1989.

Although major airlines deny any direct knowledge of such a blacklist, industry insiders said the list is widely circulated throughout pilot bases and is used primarily by union members.

## Consumer groups fight against bill on product liability

Huntington, W.Va. (AP) Sen. Jay Rockefeller's reversal on an insurance bill has prompted sharp criticism by consumer groups.

Rockefeller, D-W.Va., is the only Democratic sponsor of the product liability revision bill, which in some cases would limit an injured person from collecting money for pain and suffering.

He reversed his stand on requiring insurance industries to report the effects of the original bill limiting product liability damage claims.

"Senator Rockefeller is guilty of legislative malpractice for supporting legislation that would add to the major hurdles injured workers and consumers already face ... without first having the answers to core questions," said consumer advocate Ralph Nader.

"What is worse, he has ignored an avalanche of recent evidence that refutes the unfounded assertions of the dangerous products lobby. The citizens of his state and the country deserve better," Nader said.

The product liability revision bill would, in some cases, limit an injured plaintiff's ability to collect certain kinds of non-economic damages, including punitive damages and damages for pain and suffering.

Nader called the bill "one of the most anti-consumer measures facing the Congress."

But Rockefeller says it is necessary "if our manufacturers are to compete in the

increasingly challenging international arena."

"Our existing system is stifling innovation and robbing American manufacturing of its will to compete, with manufacturers fleeing the market for fear of their potential liability," Rockefeller said after a public hearing.

Last week, Rockefeller voted against an amendment which would have required the insurance industry to account for the effects of the bill, even though the amendment was identical to one he offered in 1986.

The amendment, which failed on a 10-10 vote, was "an important first step in piercing the veil of secrecy that shields the insurance industry from accountability," spokesmen for four national consumer groups said in a letter of support to members of the Senate Commerce Committee.

"Consumers, especially victims injured by dangerous products, deserve to know whether any benefits will flow from legislation that reduces their fundamental legal rights," said the letter, signed by representatives of Nader's Public Citizen; Consumers Union, which publishes Consumer Reports magazine; the Consumer Federation of America; and the U.S. Public Interest Research Group.

The so-called "data disclosure" amendment would have required the U.S. Secretary of Commerce to report to Congress annually on the impact of the law

on product liability insurance costs. The secretary would have been authorized to collect data from the insurance industry and from existing sources.

The amendment was rejected Thursday on a tie vote, including a negative vote from Rockefeller.

"We're hugely disappointed in what Rockefeller is doing," said Linda Lipsen, a lobbyist with Consumers Union. "We don't understand it, because he does care about health and safety."

"Where is this coming from?" she asked.

"Rockefeller cast his vote for legislation that would cruelly diminish the rights of sick, injured and disabled Americans by shielding corporate wrongdoers from responsibility for harms they cause," Nader said.

Consumer groups are opposed to the legislation, but have argued for an amendment



Just too little for too much... This Cessna is not made any more do to skyrocketing liability costs. A bill that would be of great help to manufacturers like Cessna is being shot down by Consumer groups.

that would help the government determine whether the measure has limited rising liability insurance costs.

That amendment was sponsored this year by Sen. Ernest Hollings, D-S.C. In 1986, an identical amendment was sponsored by Rockefeller.

"We need procedural product liability reform at the federal level, but I think we need this information from the insurance companies, and I think we need it badly,"

Rockefeller said in 1986.

"Without insurance data you do not know what we are getting into and you cannot measure its impact," he said in arguing for the amendment.

But during Thursday's committee meeting, Rockefeller said he was voting against the same amendment because it would be a "death knell" for the entire bill.

The remark prompted Hollings to recall

## Northwest looks for stability in growth

Chicago (AP) Northwest Airlines received bankruptcy court clearance Tuesday for a \$174.7 million buyout of Midway Airlines.

Northwest, the nation's fourth-largest airline, beat out an offer by Dallas-based Southwest Airlines.

The deal represents a further consolidation of the troubled airline industry. Northwest has been seeking to expand its business to keep pace with its larger rivals.

Midway, which had been seeking to reorganize its business while under Chapter 11 bankruptcy protection, favored the offer from Northwest. Without it, Midway said it might have to stop flying.

The purchase of Chicago-based Midway would expand Northwest's domestic operations by 15 percent and give it a strong presence in one of the nation's top business destinations, the carrier said.

Midway spokeswoman Laura Podlesny said U.S. Bankruptcy Judge John H. Squires' decision was "in the best interest of creditors, employees and the traveling public."

Northwest's offer for Midway's assets is worth \$174.7 million in cash, notes, assumed liabilities and aircraft leases.

That's more than \$65 million more than the bid from Southwest, attorneys told the judge at a hearing packed with dozens of lawyers and Midway employees.

"It's a good resolution. We're happy with it," Northwest spokesman Mark Abels said. "Midway tickets will be honored and essentially all the Chicago operating employees will retain their jobs."

Northwest, based in Eagan, Minn., said it would take several months to complete the transition.

The deal will give Northwest a strong presence at Chicago's Midway Airport, the city's No. 2 airport behind O'Hare.

Northwest said it would begin hiring Midway's work force.

Midway spokeswoman Sandra Allen said 3,800 of Midway's 4,300 employees are based in Chicago.

Northwest has been seeking expansion opportunities to try to keep pace with the rapid growth of the industry's top three players: American Airlines, United Airlines and Delta Air Lines. Northwest has also been discussing

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## McDonnell Douglas' Delta Clipper may become the DC-3 of space

### Private companies may lead the way to space

by Greg Rezendes  
Space Technology Writer

On August 16, McDonnell Douglas was declared the winner of a two year, \$58 million contract, to develop a working prototype of the Delta Clipper.

SDIO (Strategic Defense Initiative Organization) awarded the contract using a new approach. SDIO announced launch requirements for the S5TO (Single Stage to Orbit) and asked contractors to find a way to meet them. SDIO wanted a one stage, 100 percent reusable launch vehicle that would have a one week turn around time, and only needs a launch team with 350 person hours of work.

McDonnell Douglas and General Dynamics both proposed a system that would launch vertically like a rocket and land vertically like a lunar lander. Rockwell designed a vehicle similar to the shuttle, that would takeoff vertically and land horizontally.

Boeing worked on a design that would launch and land horizontally like the National Aerospace Plane, but later dropped that design to work with Rockwell on their design.

SDIO decided to use a staircase approach only allowing a two year contract. At the end of two years the SDIO will review the progress of the project. This will give the SDIO the ability to end testing if the project is not feasible, or begin production of working vehicles.

This approach will save money if SDIO decides to abandon the project. The two years will also give engineers time to build a working prototype.

The Delta Clipper proposed by McDonnell Douglas will be a cheap, effective way to launch payload into space. The cost could drop below \$2,000 per kilogram when the vehicle first goes into service and when fully operational, costs could drop as low as \$100 per kilogram.

The Delta Clipper project was an out growth of a 1959-1960 program called RITA (Reusable Interplanetary Transport Approach). RITA was the brain child of Max Hunter, the engineer responsible for the Delta rocket and the Hubble Telescope.

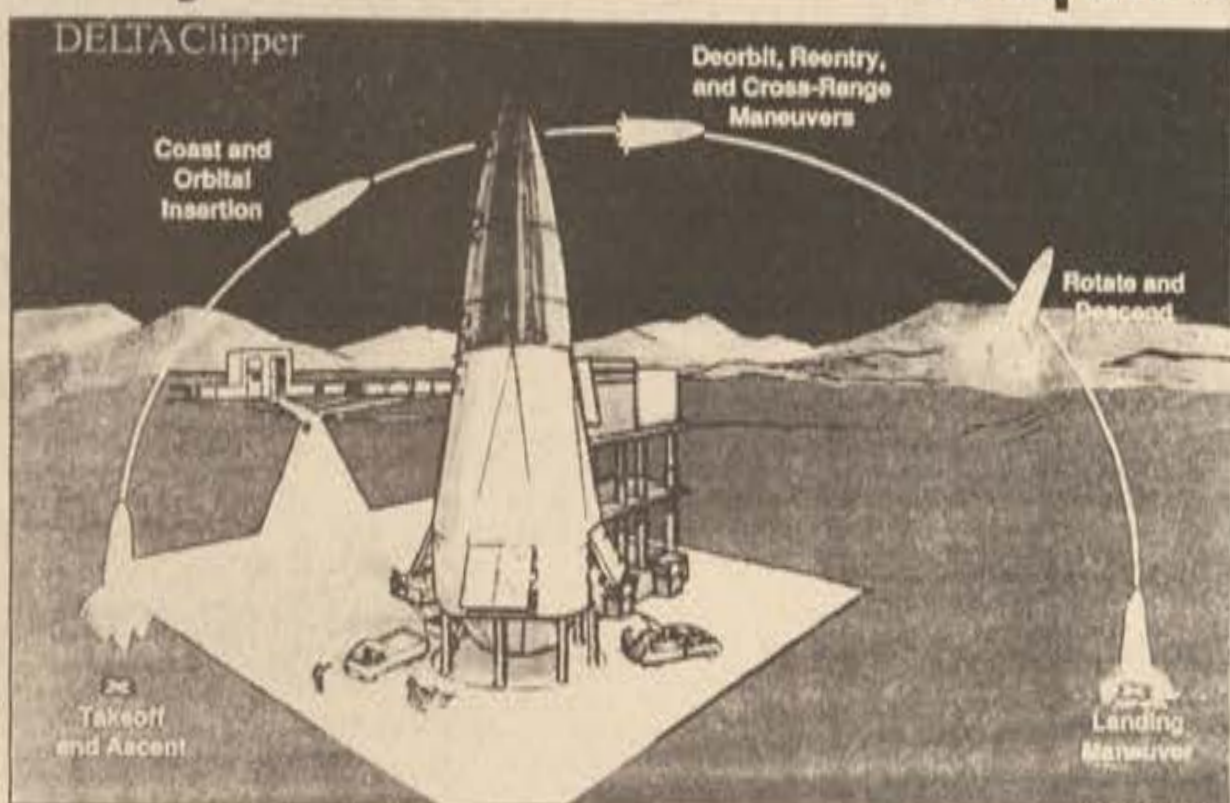
Max Hunter, who is now a consultant for McDonnell Douglas, believes that the Delta Clipper can have less than a week turn around time and could have ground operations like an airline. The vehicle could abort at any time during the launch and could operate with or without a crew.

The Delta Clipper at launch would only have 1.3 G's on its crew and could stay in orbit for 7-14 days. With on-orbit refueling the Delta Clipper can be used as a transfer vehicle to geostationary orbit or even to and from a lunar base.

When reentering the Earth's atmosphere, the Delta Clipper will enter nose first and then rotate for a vertical landing. In power decent half of the engines operate at 20 percent power while the other engines remain in reserve. The Delta Clipper will be very maneuverable and will be able to land within six meters of its designated target.

The Delta Clipper will be able to takeoff and land anywhere. Kerosene will be used as a propellant

**The Delta Clipper will be able to takeoff and land anywhere.**



### To space and beyond...

An artist's rendering shows how the proposed Delta Clipper would operate, launching like a conventional rocket while landing using a vectored thrust system similar to the Harrier combat jet's VTOL system.

because it is cheaper and more efficient than liquid hydrogen.

A 1/3 scale model will be operational in 18 months and a full scale vehicle built by 1996 for two billion dol-

ars. The normal launch vehicle will be able to launch 4,500 kilograms into a polar orbit or 9,000 kilograms into a low Earth orbit. This lifting power can possibly be increased to 10 times that weight.

## Ozone level matches three previous years

by Roland Houle  
Space Technology Editor

Preliminary data from NASA's Total Ozone Mapping Spectrometer (TOMS) suggest that 1991 will be the third consecutive year that severe ozone depletion has developed over the Antarctic.

Scientists at NASA's Goddard Space Flight Center, Greenbelt, Md., report that ozone amounts declined steadily from mid-August when minimum polar values were observed to be near 200 Dobson units through October 1 when ozone values of 127 Dobson units were reached.

Ozone, a molecule made up of three atoms of oxygen, acts as a shield against solar radiation that increases risks of cancer in humans and threaten food crops.

The ozone hole is a large area of intense ozone depletion over the Antarctic continent which occurs typically during late-August through early-October and breaks up mid-November.

This year's ozone hole occupies an area of about 8 million square miles covering the Antarctic continent. This area is nearly the same as previous years, making this the fourth severe ozone hole since 1986.

The exception is 1988, when a weaker ozone hole was observed because of unusual stratospheric weather conditions. The ozone hole shows no clear sign of expansion compared to previous severe ozone hole years.

This is the 13th year that the ozone hole has been monitored using the TOMS, an instrument on board the Goddard-managed Nimbus-7 spacecraft.

On August 15, a refurbished engineering model of TOMS was launched aboard a Soviet Meteor-3 spacecraft. This new instrument began gathering data soon after launch and also has observed this year's

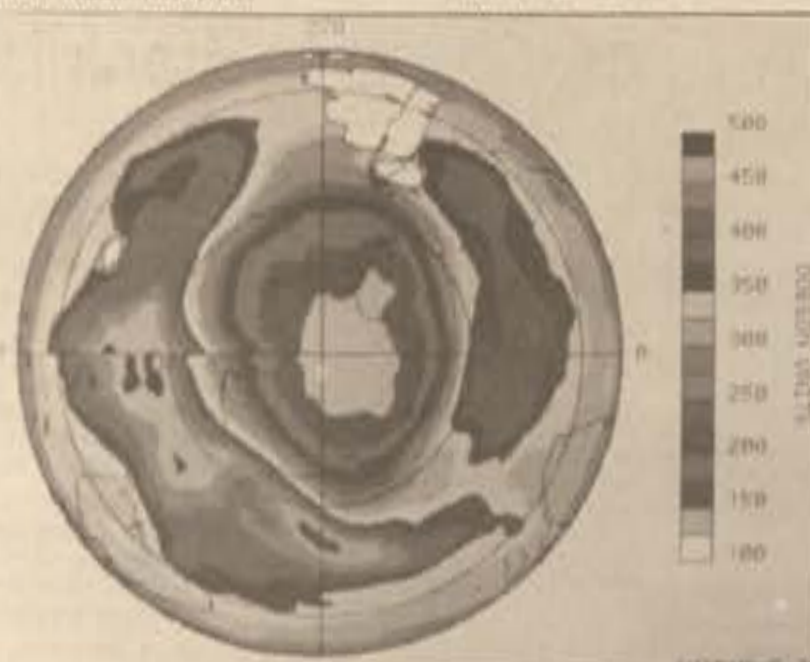
ozone hole. NASA's commitment to environmental research continues with the Goddard-managed Upper Atmospheric Research Satellite (UARS), launched September 12, 1991.

UARS will focus on the processing that lead to ozone depletion, completing and amplifying the measurements of total ozone made by the TOMS instruments.

Beginning this month, NASA scientists will take part in the second Arctic Airborne Stratospheric Expedition (AASE II).

This program, sponsored by NASA, the National Oceanic and Atmospheric Administration, the National Science Foundation and the chemical industry, will use the high-altitude aircraft to study ozone depletion in the Arctic.

**The ozone hole shows no clear sign of expansion compared to previous severe ozone hole years.**

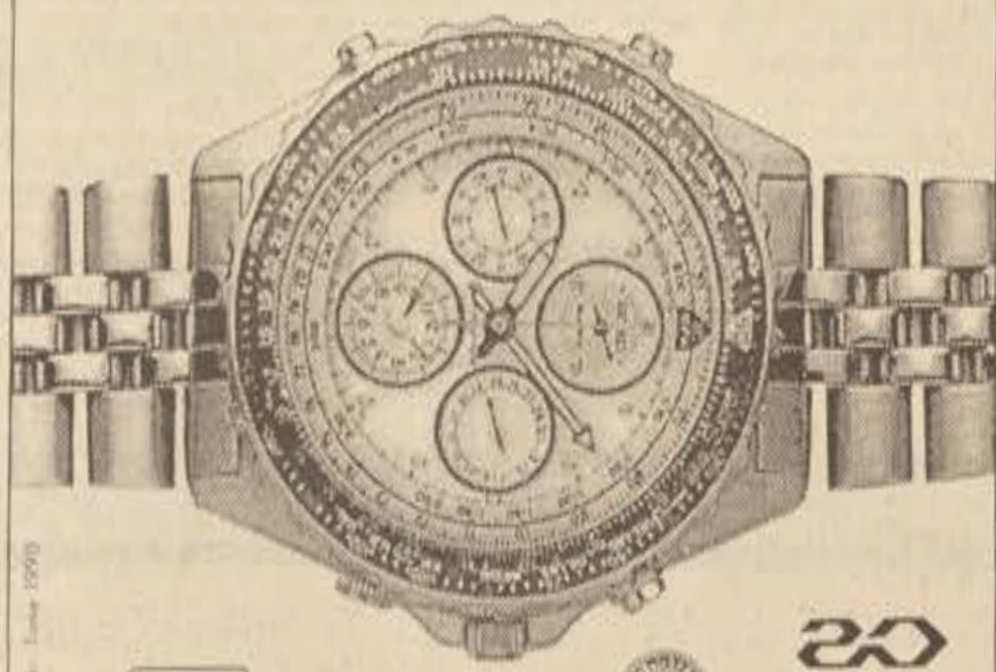


### "Holey" ozone!...

The photo displays a Nimbus-7/TOMS false color image. The ozone hole is seen as the light colored hole in the center of the image.

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*Training Today's Professionals,  
As Well As Tomorrow's*





Autos for sale

1987 Buick Regal 1977, blue, runs good, power windows, power seats, automatic, AC, has new alternator, new tires. Only \$375 OBO. Call after 5:30 p.m. Ahmed 761-4432, anytime on weekends.

1987 Honda CRX SI, 72K, Black, 5 speed, tint, power moonroof, Hella driving lights, roof spoiler, good tires, Alpine / Princeton sound system, quick car that gets 30-35mpg, book value \$3900, asking \$3000 OBO. Will consider possible motorcycle trade and cash. Call David at 760-2075.

1987 Acura Integra LS, AM-FM stereo, AC, PS, PB, sunroof, excellent condition. \$6900. Call (904) 789-3888.

1985 Mazda 626 LX, burgandy w/ tan velour interior, automatic, power everything, great stereo w/ equalizer, good condition, very reliable. \$5500 OBO. Call 322-0633 and leave message.

1973 Pontiac Lemans, 350 v-8, AC, AM-FM cassette, 255 Firestone Tires on American Racing rims. Make me an offer I can't refuse! Call Neil at 258-7603 or box 1-228.

1981 Toyota liftback, reliable car for a student, runs good, 4 new tires (1 month old), good stereo, AC. \$800. Call 258-7872.

1985 Ford Escort L, like new, new tires, great gas mileage, new transmission, must see. \$2000. Call 255-8430 after 6:00 p.m. or box 4035.

1986 Isuzu Impulse, excellent condition, low miles (45,500), PW, PB, PS, \$4600 OBO, need money for school, call after 6:30 p.m. 253-9147.

1983 Toyota Camry, 4 dr, 5 spd, clean, very well maintained with records, leaving soon, must see, \$2400 OBO. Call 677-4147 or box 6653.

1979 Toyota Celica, 5 speed, good beach car, \$400 OBO, call Doug at 258-1094.

1971 Karmann Ghia, solid pan, fiberglass nose, good paint and new tires. Needs interior work. \$1500 firm, call John or leave message at 258-8524.

1989 Yamaha FZR 1000, new rear tire, Yoshimura slip on header, custom seat and an extra new stock windshield. 14,000 miles, \$5000 OBO, call John or leave message at 258-8524.

Alpine car stereo system, includes removable receiver, 100 watt amp, and 3 way speakers. Best offer, call 253-9348.

For sale: Sig Sauer P226 9mm, new in box, also Springfield P9C 9mm, excellent condition with extras. Call Eric 788-9802.

For sale: Solid wood Bar, cedar and oak finish. Call Jotun at 756-3933.

Mac portable computer, 40 mb hard drive, internal 2400 baud modem, 8 hr. battery and charger, numeric key pad, case. \$2495 negotiable, call toll free 1-428-3495 or 428-1278 and ask for Mark.

Stereo for sale, 330cc Harmon Kardon receiver in great condition for only \$150, must see, contact box 5168 or call Lisa or Norm at 239-8748.

Stereo system, Emerson, AM-FM, turnable and cassette with 2 speakers. \$30. Call 904-789-3888.

Dryer \$75, call 322-0633 and leave message.

For sale: Emerson dual cassette, photo 4-bands graphic EQ stereo/audio system with two tower speakers and remote. \$125 OBO. Contact Mark at box 7463.

Surfboard, great shape, 6'3" Waerwind custom made, awesome color, nose guard, rear grips w/raised arch. Paid \$385 1/2 years ago, \$200 firm. Call 673-8107 ask for Mike.

For sale: microwave, turntable rotates different direction each time door is opened. Has sentimental value. Asking \$1400. See Rob G. in AMF.

For sale: black and white TV, good condition, excellent for dorms. Color Console TV, 21 inches, ok condition, Magnavox. Call 756-1491.

Books for sale: RT 101, PS 101, HU 141, MA 112, CS 109, MA 111, Call 274-1199

Census ELT, don't leave home without it! No batteries, works, \$50. SWR meter/power meter, 2000-2000 watt range \$30. Sooy self amplified speakers. SRS-50 with power adapter \$30. TI-74 Basicalc. Bk ram, expansion & mathematics cartridge, all for \$60. Amiga genlock for A1000 or other models (but needs optional cable) \$90. Video special effects switcher, faders audio and video, \$85. Call 760-3219.

For Sale: Roland Juno 106, full size, programmable synthesizer, MIDI, 2 foot pedals, 2 storage banks w/ 64 patches each. Must see! \$600 OBO. Call 760-3219 or box 4412.

New P-40 Washhawk gas/elec scale R/C, 5th scale, needs minor work to get flying, takes 2.0 - 4.0 oz. in. engine (32 - 65 cc) \$125. Call 760-3219 or box 4412.

Laptop Laser PC - 3, 32K ROM, expansion port (serial and parallel) printer cable, PC communication cable, PC tools included. \$110. Call 760-3129 or box 4412.

Alpine 7150 FM/AM Cassette auto reverse car stereo, \$60. Cunningham Est. 6636, A - 219.

For sale: Laptop PC. Genuine IBM PC convertible, 512K RAM, LCD display, 3 hour battery, charges, DOS 3.3, PC tools. Avoid the hassles at the computer lab. Compute wherever you want to. \$200. Call Brian 255-6303.

For sale: Whirlpool Air Conditioner, 5,000 BTU, 4 months old, moving must sell. Still under 1 year warranty. \$100 OBO. Call Brian at 255-6393 or 226-6051.

For sale: brand new motorcycle cover with best shields and motorcycle rain suit, size large, either one, \$30. Call Chad at 756-1773.

JVC portable AM/FM cassette stereo, includes extended warranty, 2 extra speakers, and the original box. Call 274-5046.

For sale: extra long, truck single bed mattress and box spring. \$75. Call Matt at 255-8498.

For sale: Casio FX700-G graphics calculator \$45. Ladies black hills 10 kt, gold ring size 7, rose pattern, \$50 firm, must sell. Sound design alarm clock radio, brand new, \$10. Contact Jason box 6036 or Dorm I room 356.

Desk, beautiful wood executive desk, 36" X 72", 3 drawers each with file, one year old, cost \$300, will sacrifice for \$200, won't last, call 322-0633, leave message.

For Sale: AKAI GX-P51 cassette deck, 2 motor direct drive, auto fader, intro scan, directional lead in, L & R mic jacks. \$125 OBO. Call 252-9093 or leave message.

For sale: RCA VHS video camera, powerful 8X1 power zoom, do wiper, fades, Chroma graphics and audio video editing, comes with hardshell carrying case, Nicad battery pack, recharger and cable accessories. Paid \$1,600, used only 4 times, will sell for \$600. Call Patrick evenings at 248-0237.

For sale: Beretta 92F, 9mm auto pistol, double action, no feed jams, comes with two 15 round clips, hardshell carrying case, cleaning brushes and handbook. The weapon of choice for police officers. Only \$500. Call Patrick evenings at 248-0237.

For sale: Macintosh SE, W/ 20 meg hard drive and 1 meg RAM, comes w/ Microsoft Word, 500,000 word dictionary and spell check program, correct grammar program and Microsoft Excel spreadsheet program, Tracon air traffic control program and beginning level CADD. Also available all for only \$1,500. Call Patrick evenings at 248-0237.

For sale: MA 220 text book, \$20. Call Matt at 238-1417 in evening.

For sale: Brother electronic typewriter with built in word spell dictionary and 4,000 character storage memory, \$100 OBO. Call Matt at 238-1417 evenings.

Looking to buy old Battletech books or miniatures for reasonable prices. Specifically the 3025 Tech readout and novels. Call Brian at 760-6872 or leave message in box 5985.

Multi-time! \$90 per hour, includes dual-time and fuel. Airplane based at Daytona Beach Airport. Whether you are looking for an additional rating, want to build multi-time or sightsee. Fly in a 1980, IFR equipped low-time Beechcraft Duchess. Best rate anywhere. Call John at 253-9607 or box 210-2.

Productive, efficient dual time, private through ATP by 2000 hr. ATP gold seal 2 yr flight instructor. 1500 hrs. of flight instruction given in Daytona area. I can get your license or rating in the least time. Fly at Vintage Props and jets in NSB. Best aircraft prices, no ARSA delays. Call Wes at 255-1946 or VP & J 423-1773.

Aircraft rentals, reasonable rates, C-150 / C-172, overnight available. Call M.C. Flyers at 767-9464.

Personals

DORK Is mountain flying fun? Seen any sixteens? Have fun. NIRD

Why is it that the things we want are the things we can't have?

CURIOUS ADMIRER Give me a date and I will check my calendar. ERICA W

This campus needs a radio station!

HEY KIDS This wings the coolest! LOVE GUMBI!

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.

FENCERS HAVE A BETTER TOUCH!

ANDREW I love driving next to you, but don't you think it would be easier to talk when we're in the same car? You've got my number.

Look out, here comes Dover

THE I.A. IN 1637, ACII Can I have your children before you're old and gray? Ha Ha. THE ONE WHO MADE IT TO CLASS!

HAMMER Drinking too much causes vomiting. F'n A, man! I want, but I can't have, I've got 5 pookies in my overalls, 1 got 2 in the back, one on my bib, and 2 in the ordinary average, everyday place, in the front. Poetry Rules - lets be civilized. CHART

JONNY, Hammer loves ya, babe. So do I! CHART

CNH PHILOSOPHY #1 He who quacks first never got his webbed feet wet. A hypocritical duck just flew by.

CHUCK You have a big nose, but I love your hair. We only have 2 roommates left! "CHUCK II"

SCOTT You lamb-chop, I love ya! Ya wanna get punched? HEY! Ticklish, are we? How bout a movie? (Not.) FROM ME

OOH ALBERTO! LYMYWYBY (I'll explain later!) FROM THE ONE YOU LEFT BEHIND

TURBOBLONDE I want your body. TURBOLOVER

DOUG P.S. Ami says thanks for adoring her. BETH

TANYA R. Keep up the good work! BETH R.

DOUG Happy belated birthday sweetie. I love you more today than yesterday, and even more tomorrow. BETH

AMI AND KATI Thanks for being awesome friends! Hope our friendship lasts forever. BETH

KATI AND AMI Roommates 92! BETH

APROTC ATTN: FLIGHT 1 Intruder Flight, yeah we're alright! Ready to put up a fight! Fly'in up to honor flight. Check us out, we're out of sight! IRN

LOST WITHOUT YOU How can I find you? Give me a call (I think you can find out my #) or my box is 7104. I'd like to show you how much I know. JAYLIN

JON I met you a while ago, at a party at ACII, and I think you're great. You're in the apartment next to Brad, right? I would like to see you again. Would you mind if I stopped by sometime? Write back, please. "GREEN EYES"

JONNY. Pretty soon you'll get your wings and a great graduation gift... only 2 years and 1/4 semester to go! Does flying really you compensate for the real thing? SLAM

CHART Can we possibly count on both hands and feet? But there's that one out there (somewhere) and mine's either dry or multi-talented.

THE AWAY TEAM RULES! (NOT)

CHART HAVE HIS CHILDREN??? F'n A, man. Dude man, dude...Bohr-glock! HAMMER

"QUACK! QUACK!" "Quick, get the gun!" Mchawk - ducks suck. "Shook at da fashkers!" THE DUCK - SLINGER

TURBO LOVER Did your knees crack again? TURBO BLONDE

STARFLEET COMMAND Thank you Mr. Data. SNAGGLEFLASHTELII

STARFLEET COMMAND The Quickclaw will proceed to the Ranger's last known position without delay. (A few hours later) USS Ranger, this is The Caltian vessel Quickclaw, Captain Snaggleflashtelii, respond please. USS Ranger, this is the Quickclaw, can you hear us? We are responding to your emergency... Starfleet Command, we are under attack from Romulan! Shields are... ting and li... upport... alling... ple... ehp.

Tiger got to hunt. Bird got to fly. Man got to sit and wonder why why why. Tiger got to sleep. Bird got to land. Man got to tell himself he understand. BOKONON

TO THE AVION BABE We love you! THE AVION

HEY KORY O.K. there are two guys in a boat (or was it a canoe) or was it an F-16; or was it an elephant and a mouse; or... GRANDPA AND SIS

HEY SIS Why are we such trouble-magnets? I'm glad we have each other to count on. Love you lots. GRANDPA

DURF AND CHUCK Fooooooo!!! GONZO

DAWN You are out of control THE DUDE

TO ALL WATERFIGHTERS Watch your back! I'm loaded and ready. TIRMINATOR

TOAST Glad your feeling better. LOVE TETE

OVERLORD My apologies for scoffing at your power. Free riders have informed me of your official position. SNAGGLEFLASHTELII

PICARD We have a dilithium crystal fracture, we must shut down the warp engines to replace it. It will take several hours due to damage caused by antimatter leaking through the fracture onto the reactor walls. LAFORCII

SNAGGLEFLASHTELII unable to continue to your location due to reactor problems. Will be delayed several hours. RIKER

SIC I had a good time Saturday night. Maybe we could go dancing after dinner. C.E.

POOKUMS Decided not to write anything for the past few weeks because I haven't seen you. Apparently you are still staying away from the team. Maybe I'll see you around campus (not). C. ED.

RIKER It's really nice having you around. If you decide to stay awhile longer, I'd like to stick around too. TROI

Roomates & Rental

Roommate wanted for Spruce Creek Fly in, large room, bath, cable, garage, washer, dryer, really nice house, golf, tennis, pool, ramp space available, \$325 mo. plus 1/2 utilities. Call 760-4348 and leave message.

For sale: 7 bedroom, 5 bath, beautiful historic landmark house, lots of lighted parking, furnished, \$120,000-Mahland. Call 258-5901 in evenings.

For rent: for sober, non smoker, gentleman, two furnished comfortable rooms, quiet place in a beautiful big home. All utilities included, second floor, very private. \$190 a month with \$100 sec. dep. Call evenings 258-5901.

For sale: mobile home in Port Orange, 8.5 miles from campus. Large living room, 2 bedrooms, covered patio, washer, gas stove and heat, central air, in Parkwood Mobile Home Park. Home park allows small pets and children. Park has children's playground, tennis court and pool. \$10,700 OBO. Call Laurie at ext. 6039.

Misc. for sale

Engagement/Wedding ring combo, .47KT diamond, 14 KT. gold, \$600, call John or leave message 258-8524.

For sale: Pearl 5 piece drum set, good condition, \$120. Digi-tech programmable guitar distortion box, octaves, freq., boost. \$65. Must see, excellent cond. box F-113 or call 760-3219.

Safe Environment

Good EVENING, FRIENDS. AS the most respectable member of the cast of "Safe Environment", I have been elected, nay, forced to represent this feature in a very delicate matter. (Illustration of a man in a suit)

As I am sure you are well aware the theme for this year's homecoming festivities has been chosen to be "Toon into Homecoming". Strangely enough, through some tragic oversight, our own "Diddle" has not been invited to the festivities. (Illustration of a man with a sign)

That's right, now you too can be a part of the decision making process. To participate, simply clip out the 4th box, fill it out, and bring it to the AVION. We will then sneak through the air ducts at 4 A.M., filling Student Activities with clippings! Doesn't civil disobedience feel great!?

WE WANT DIDDLE AT HE AINT PRETTY. BUT HE'S ALL WE GOT! HOMECOMING '91 NAME: COMMENTS: (Illustration of a man with a sign)

by The Senate Judiciary Committee



## Lambda Chi Alpha

by Nick  
Fraternity Writer

You crazy guys! We're half-way through the semester. Only seven more weeks until final exams. Hatin' it! Associate Members get your butts in gear and start getting together and thinking about all the information coming your way. Big Bro's get on the ball and start spending some quality time with your Little Bro's and explaining what Lambda Chi is all about.

Greek week starts this Saturday, so let's all get fired up and take the trophy this year. Be sure to hit the party at G.B. Reef's this Saturday Night.

Well, so far our football and soccer teams (a.k.a. the clueless guys running around) are starting out slowly but, hopefully they'll pick up their pace before the season is over. Get some guys! Both teams still need more people to show up and play, so do it.

Designated drivers this week (Oct. 13-20) are: Keith "The P\*\*\*\*" Zacherl, Bill "Limp arm" Moore, Brian "Swelled Head" Murphy, Scott "Red-Neck" Hunt, and Nick "Just a nice guy" Colella. (It's good to write the article).

The Mark "Juan Epstein" Raffa quote of the week is: "Save a tree,

## Flight Team

by Steven Brazao  
Club Writer

Hello. It's me again. I'd like to start off by thanking Mr. Mason for a great BBQ this past Saturday over at his house. Everybody had a great time, and the food was more than plentiful. I'd also like to thank Dave for doing a great job with the glass case, which received honorable mention at a recent contest run by Student Activities.

Work on the Loening Book and the Safety Book is well under way.

eat a beaver." And now for what we hope to be a continuing part of this article each week . . . THE TOP TEN LIST! This weeks top ten list comes from an anonymous brother: The Top Ten Stories Eric Samowski could tell on The David Letterman Show!

10. How he was captured by aliens and taken to Mars.

9. He's managed every rock-and-roll band since 1970.

8. He logged more hours in a F-18 simulator than in a Cessna.

7. He swam the English Channel.

6. Escaped from Iraqi POW camp after F-18 simulator shot down.

5. Sat in for sickly guitarist for Skid Row on their '90 tour.

4. Won Nobel Peace Prize in 1972 for bringing the world together.

3. Black Belt in every Martial Art.

2. Only survivor of Challenger explosion.

And the number one story Eric Samowski could tell on The David Letterman Show is . . .

1. Recruited into Navy Seals out of high school.

What's up with all the Theta Phi's being so quiet, have you admitted your inferiority???? Fish, Murr, Sheen, and Nick.

## Delta Chi

by Gern Blanton  
Club Writer

As the winter winds howl across the northern tip of the Florida Peninsula, we at the DELTA CHI fraternity continue to frantically gather nuts for the long hard winter ahead. Many brothers spend their days filling their bellies with various liquid libation used to shield them from the wretched cold ominously looming in the more northerly regions of our land, while others busily repair the house from our Founders Day festivities.

As a gentle reminder to our vanquished brothers, be sure to view the next episode of "Cops," our very own David MacNellis will be appearing in the "Cops in Connecticut" show. Our chapter

"sex supervisor" would also like to remind brothers Fratin and Cooper that the Surgeon General has concluded that suffocating your date is not the preferred form of foreplay. The athletic chairman reminds all of you to report to the Temple for the traditional sacrifice once again ensuring a Greek Week victory.

In conclusion we wish all the best of luck to those who dare oppose us and invite all of you to turn to your neighbor and wish him a happy and prosperous life. To quote one of our noble founders "It's not the size of the bush, but how it's trimmed."

Editors note: In last Week's issue, the Delta Chi article was mistakenly identified as Sigma Chi. The Avion sincerely regrets the error. - The Editor

## Information Society

by John Luke  
Club Writer

The Information Society is gearing up for elections of new officers. The elections will be held at the next meeting. Meetings have been moved to Thursday's at 6:30 p.m. in room C-415. Come out, join, vote and find out more about Information Management today!

At the end of the last meeting, the club was given a demonstration of the new Career Center Job Information File at the Academic Computer Lab in "C" building. Club members were introduced to the multitude of functions the new

database provides. From seeing general job listings to getting specific information and mail merging, the members were instructed by John Luke, Student Assistant in the Career Center.

On Thursday, Oct 10, the Information Society took a tour of the Data Processing building on campus. Members were shown the various work areas in the professional data processing environment and given the opportunity to ask questions and learn about how Embry-Riddle manages its information.

## Alpha Eta Rho

by Matt Hopkins  
AHP Historian

Hello brothers of Alpha Eta Rho. I hope you are all having a good week. There are plenty of activities coming up to keep the rest of your weeks busy. I'm sure they are busy enough already.

The paintball game was fun this past weekend. Those who went said that they had a great time. The football team is also progressing very well. Hopefully, we can now get back on a regular schedule.

A special thanks goes out to Pat and Joe for setting up the upcoming social events. We are all looking

forward to them. Thanks also to Sam for coming up with the great design for the T-shirts. Now only if we could decide which colors we wanted! Also, Allen did a very good job drafting up the recent alumni news letter. It was very well put together. The pledges also did a wonderful job stuffing envelopes. Thanks for volunteering your time.

Yet another short article has come to an end. They all end to soon, don't they? Oh well, have a very productive week. Oh yeah, you guys look really good in the Miami pictures! Take it easy.

### Clubs Policy

- All articles must be type-written, double spaced or on disk format (unformatted in Word Star or Microsoft Word).
- 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 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) 226-6079.

## Theta Phi Alpha

by Erica Watt  
Public Relations

Keep up the good work "pledges"! You guys are doing a great job!!! How are those assignments coming?

This past weekend Theta Phi had a pledge-sister night where our pledges were given their Big Sis's. Don't forget October 18 is Lil' Sis Day.

Sigma Chi— thanks for having us over these past few weekends. We all had a great time at your house (and in your pool!!)

Hope everyone enjoyed the surprise Friday night. I know you all were thinking of something wild and crazy, I'm sure Maxamillian was much better though! Maxine, it was great to see you, we miss you so much!!

## S.C.A.T.

by Americo G. Madera  
Club Secretary

Welcome to S.C.A.T. Chat! S.C.A.T. Chat will be a regular addition to the Avion from now on. It will serve to keep you informed and will end with a challenging question related to maintenance.

The Society of Commercial Aviation Technicians now has 68 paid members! This is the largest we

have ever been, and we are looking forward to a great school year. Our tour of Delta Airlines in Orlando is scheduled for Friday night on the 25th of October. If you have not signed up, see Mr. Vosbury in room P-143. Remember to keep and eye on our bulletin board in P building.

Here is the question of the week: Why is the TPE-331 started in the low blade angle and the PT-6 is not?

## New Scholarships offered

The National Business Aircraft Association will annually award ten \$500.00 scholarships to students studying aviation related curriculum.

Completed applications and required documents must be post-marked no later than October 31, 1991, to be considered for the scholarship.

The Society for the Advancement of Material and Process Engineering announces their 1992 Undergraduate Awards Program for

Engineering Technology Students.

Consideration for this scholarship is given to scholastic average, specific courses of study, academic awards and honors received, work experience, campus and community activities, and written dissertation demonstrating the student's objectives in processing and materials technologies.

Applications for these new scholarships may be picked up in the Financial Aid office in Spruance Hall.

**Correction**  
In the editorial entitled "Graduate students have no say in the SCAAT" in the 10/9 issue of *The Avion* it was stated that the graduate program was not accredited, the graduate program is accredited by the Southern Association of Colleges and Schools.

## Sable

(continued from B1)  
to be what we expected. The acceleration curve proved to slope high until about 65 mph, were it dropped into a horizontal line. At about 95 mph the acceleration curve was nonexistent due to a speed limiter. As the car's speedometer started to go around for the second time and the tachometer reached 3600 rpm, the tach needle fell back to 3500 rpm and refused to go any further.

The all around MacPherson struts proved to be extraordinary. In the test drive, the Sable took 90 degree, banked s-curves at 50 mph without rolling. It would have been tested further, but there were too many slow pokes on the road to push it any further. Slalom was not tested due to the fact that there were no empty parking lots that could be found. Yet, at 90 mph the car felt like it was floating on air. Not to

mention the fact that in poor road conditions, vibrations were barely detectable.

Ergonomically the Sable is a gem. All controls were easy to reach. The seat was electronically controlled in four directions as well as a electronic recline controls. All power steering controls were on the steering wheel (also fitted with an air

bag). Radio volume and tuning were up at the top-right of the dash. Not

to mention that there was a six speed windshield wiper control on the column. Head room was proven to be more than adequate when this six foot three inch test driver could move around freely in the front seat. In fact the only complaints that could be made are that there is a slight leg restriction when the ashtray is extended, and the seats

are so comfortable that it is fairly easy to fall asleep at the controls on those long cross country drives.

The brakes deserve a rating of excellent. At 40 mph the pedal was virtually stood on and they simply refused to lock. The stock brakes are disc in the front and drums in the rear. However, there is an option for ABS. Although, according to our test, there is little reason to get them except for the purpose of satisfying trendy customers.

The total basic price for the 3.8L Sable GS that the Avion drove is currently being sold at Daytona Lincoln Mercury for \$15,990.

All around the Sable proved to be a nice car and is worth the money.

Up against comparable foreign cars the Sable could be an key market for Mercury. However the speed limiter is always going to be its Achilles' heal.

**Ergonomically the Sable is a gem. All controls were easy to reach.**

# Do Not Forget!

## Clubs Articles Meeting On

### October 17th At 5:00 p.m. In


#### The Student Center Conference

##### Room *If You Do Not Attend*

##### *Your Articles May Not Run*

# THE AVION:

## A world of opportunities are ahead of you...



1. An award-winning newspaper
2. Real office experience
3. Lots of things to do and see
4. Lots of incentives, free food and free drink
5. Real deadlines hanging over your head
6. Following student controversy and concern
7. Good news to tell, and bad
8. Interview important, outstanding people
9. Photographing everything
10. A proud creation each week.

If you want more on your resume than a degree and the job you took at student employment, the Avion is a place for you to show some real initiative, every week this Fall and thereafter. It's the only weekly publication at Embry-Riddle by students for students...

## THE AVION: EXPERIENCE

### SOME REAL EXPERIENCE.

The Avion office is on the second floor of the Riddle Student Center, west of the elevator. Our number is 226-6049, or campus ext. 6049.



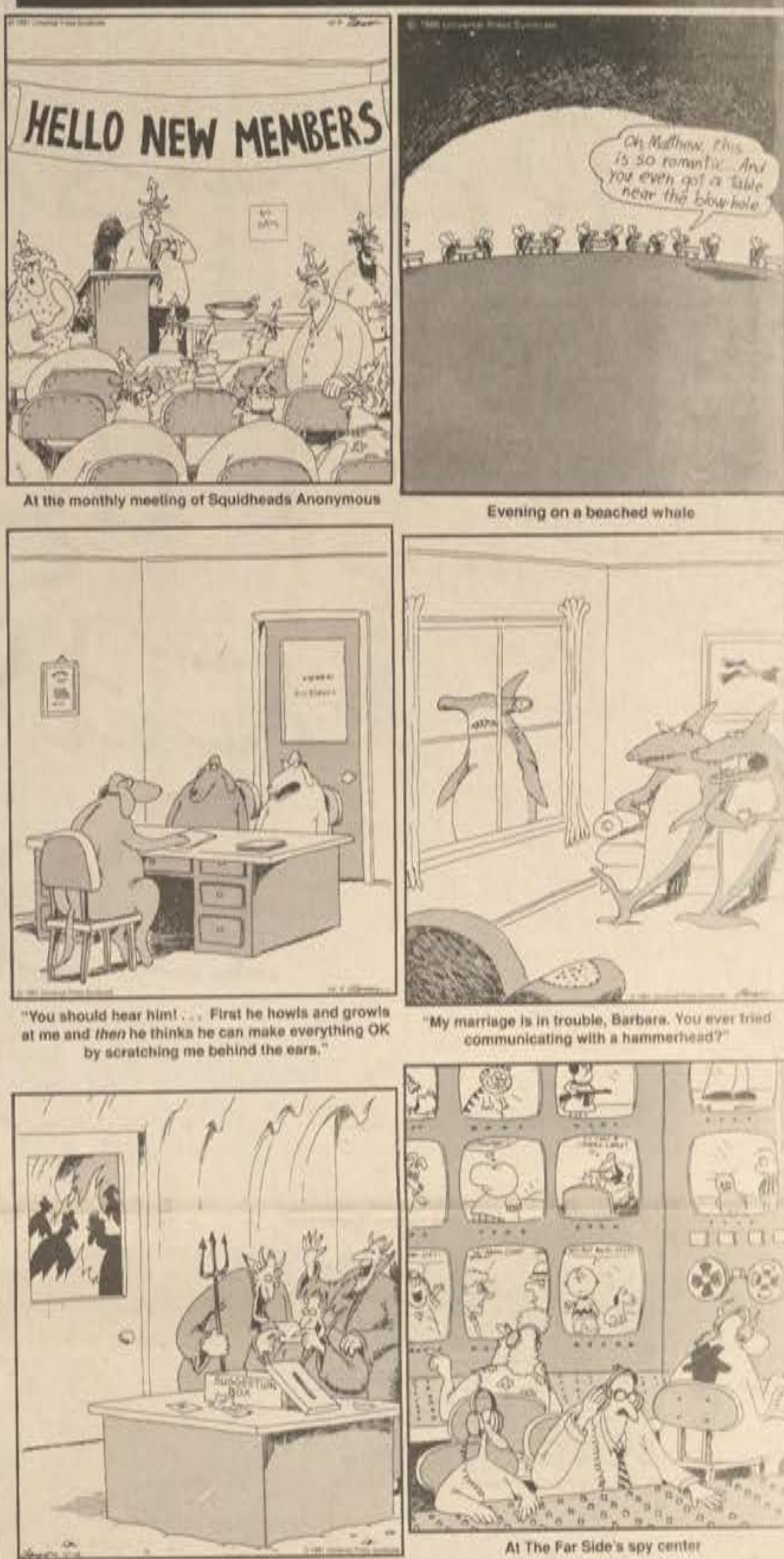
Calvin and Hobbes

by Bill Waterson



Far Side

by Gary Larson



Mister Boffo

by Joe Martin




Mother Goose and Grim

by Mike Peters





# Recreational Flights Leaving Daily.

	<p>Sunday</p> <p>Laser Karaoke Night.</p>	<p>Tuesday</p> <p>Two for Tuesday - \$ 2.00 well drinks until close ERAU Night - .50¢ drafts for ERAU students. \$3.50 Pitchers of Draft.</p>	<p>Wednesday</p> <p>Country Music Night with Station 98 Frog.</p>
<p>Thursday</p> <p>Drink and Drown</p> <p>10.00 cover and all-you-can drink (No bottle beer, cordials or frozen drinks).</p>	<p>Friday</p> <p>Waves Hungry Hour 5-8 PM \$2.00 Cover - Hot &amp; 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 &amp; rock music. \$1.75 Coronas and \$1.00 Tequilla Shooters.</p>	<p>Saturday</p> <p>Live music by "Just 2 Much" 10:00 PM - 2:00 AM - I-100 host the "Heart Throb" game beginning October 12th.</p>	

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.

DAYTONA BEACH **Marriott** 100 N. Atlantic Avenue  
Daytona Beach, FL 32118