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# AERONAUTICA

**Inside Section** Aeronautica ......B1 Classifieds.....B8 Clubs......B6 Comics......B7 DataTechnology......B3 Diversions.....B4 Space Technology......B2

## GPS instrument approaches tested by the FAA and AOPA

By Bryan Gross Announce Editor

Flight tests are being conducted by the Airborne Systems Technology branch of the Federal Aviation Administration (FAA) on the new Global Positioning System (GPS) non-precision instrument

The information received will be Oklahoma City.

Airport was the site of the testing.

However, the GPS 22 approach into ACY was not necessarily an atypical approach because of the

intermediate leg of the procedure.

turn allowed under TERPS criteria.

This experiment is the first step respectively. in a program that is designed to overlay already existing published VOR and NDB approaches.

"Merely duplicating today's nonprecision approaches is a good first step," commented Aircraft Owner's and Pilots Association (AOPA) president Phil Boyer, "when you see analyzed by the FAA's Office of the precision and potential ease of Aviation Systems Standards in operation of a GPS approach. While our ultimate goal is new approaches Atlantic City International (ACY) where none exist today, establishing overlay approaches will get the ball

AOPA expects that the FAA will someday be able to establish between the initial leg and approaches on some 5,000 existing

approaches. The current VOR and This is the maximum permissible NDB radio navigation facilities used are 1950s and 1930s technology, Non-precision approaches offer the pilot position information, but no vertical descent guidance.

In the future, AOPA also anticipaies the establishment of thousands of new instrument approach procedures at airports tacking them because of the high cost of the ground-based systems.

The objective, given by the FAA and AOPA, is to determine if the airspace required to fly the GPS approaches fits within the existing TERPS airspace requirements.

The program was not designed to develop new criteria for Category A inclusion of a 120 degree left turn overlaying GPS non-precision approaches (those flows with final approach speeds of 91 knots or less).

The program has been underway since July 30, 1992 when the FAA's Thomas C. Richards and Boyer signed an agreeement to cooperate on the flight test program.

AOPA donated a 1984 Beech Bonanza A-36 and 14 "test" pilots. This group of pilots consisted of both low and high time pilots.

The high time pilots were those with instrument ratings and more than 1500 hours total time and the low time pilots consisted of pilots with instrument ratings and less than 500 hours,

Summit Aviation, under contract with the FAA, modified the aircraft and used a Northstar M2 GPS navigation receiver wired it the Bonanza's Horizontal Situation Indicator (HS1).

This provided the Course Deviation Indicator (CDI) needle with movement based on GPSderived position.

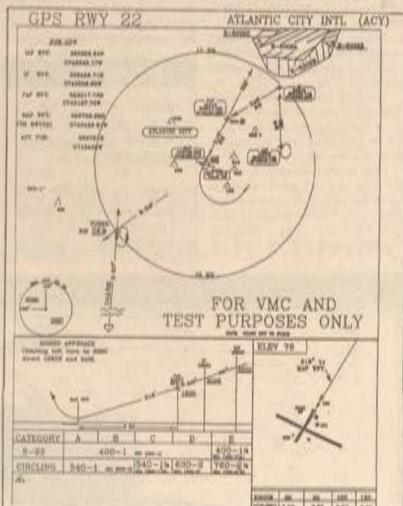
The needle was manually increased for final leg of the approach to one-sixteenth mile per dot of movement at the Final Approach Fix inbound to the ninway.

All of the pilots flew two familiarization runs and then eight recorded approaches "under the hood" (with a vision limiting device that simulates actual instrument weather

All of the approaches were recorded and tracked by NIKE radar. No flight director or autopilot were used, instead relying completely on the Bendix King K152A HSL All of the tests were conducted in single pilot IFR operations.

GPS course deviation indications are linear, not angular and therefore off-course indications do not vary with distance from a navigation facility on the ground.

'Compared to procedures based on distant VOR stations, the navigational accuracy of GPS non-precision approaches will be a welcome



The GPS non-precision approach into runway 22 at Atlantic City International airport is not a typical example of a normal GPS approach. This is because of the 120 degree angle between the initial and intermediate legs of the procedure, the maximum allowed by TERPS.

improvement," said AOPA's Boyer, navigation coverage on most of the 'And overlaying the harder-to-fly globe. Of the 24 satellites, three of NDB approaches will be a major improvement."

Twenty-one GPS satellites have been launched by the Department of Defense and provide part-day coverage for supplemental en route results to be announced, the FAA is navigation today.

By 1995 a full constellation of 24

them are spares.

Civilian users will have a less precise system as compared to the military users. While it is too early for any

examining the issues concerned in the development of the GPS satellites will provide 24 hour approach system.

# Furtherest Personan Polimentenen

AOPA's Beech Bonanza, as modified for GPS non-precision approach flight testing in the Flight Test Hangar of the FAA research facility in Atlantic City, New Jersey. The GPS equipment is in the rear floor area of the Bonanza.

### mCom delivers Inertial Navigaton

By Ron Hess Data Technology Ealter

SimCo. International, Inc., of Orlando, Forida has delivered a Litton LTN-2 Inertial Navigation System (INS) to Northwest Airlines,

The SimCom Fraining Systems Division worked v h Litton Aero Products of Moorpa California to develop a simulator trai provides a "hands- laining and practice in the operation I the INS

The system de vesed Northwest will be used a rain DC-10 pilots in the operation of the LTN-92.

The watern also includes a simulation the DC-10 Flight Guidance System

Additional training also is provided for the ame pilot and flight director procedures

SimCom's LTN-92 simulator is the company's first Computer-Based Aircraft System Simulation (C-BASS).

C-BASS is a new approach to pilot training.

The system operates on an IBM a good substitute for an airline Many training procedures can be PC/AT comme in mpu or with a cockpit.

portability ... if flexibility for class- software and cockpit replication. room and private use

The purpose of SimCom's Cthe least amount of cost, time and hardware.

The focus of the C-BASS system is to train pilots through tar' orientand repetitious nine Currently, task-oriented training in costly for airlines.

Airplanes have to be removed from service to train the students; The risk of damaging the aircraft is increased.

Three dimensional simulators are productivity

provide students with audio, visual inch flopp lisk. This allows for and tactile input through the use of

This is a cheaper alternative to on sight training because it allows the BASS software is to provide the student to perform repetitive operamost realistic training possible at tions and to experience the consequences of errors.

The drawback of three dimension-'o a few centralized locations due to Luciware limitations.

ypically, airlines pay 25% to 35% of their training budget to provide travel, housing and meals for students to train on the simula-

There is also the loss in

The focus of the C-BASS system is to train pilots through task-oriented and repetitious training.

taught effectively without the use of Three dimensional simulators a three dimensional environment. Two dimensional systems can replace the physical simulators by using high resolution graphics to represent the training equipment. C-IIASS belongs to this category

The portability of C-BASS allows it to be sent to remote locations, at a cheaper cost than sending personnel.

Two dimensional simulators can al simulations is, training is limited be operated in a classroom environment, or used to provide individual training, reducing the necessity and cost of instructors.

Another significant benefit of the computer-based training program is the system operates on widely available off-the-shelf computer hardware.

This reduces the cost of hardware and distribution.

The Litton LTN-92 C-BASS simulator will allow Midwest's DC-10 pilots to train on the INS equipment while freeing higher level equipment for more productive uses.

#### Lockheed teams up with Aermacchi and Rolls-Royce The T-Bird II follows in the foot-

By Denis Discobing

Staf Haporto

Lockheed has teamed up with Italy's Aermacchi and England's Rolls-Royce to produce the T-Bird II training aircraft. It will compete against six other teams in the Joint Primary Tmining System (JPATS) selection process. The JPATS competition is being

used to select a new primary training aircraft for the U.S. Air Force and Navy. The contract, worth an estimated 56 billion, would procure 764 total aircraft (347 for the Navy and 417 for the Air Force). These new aircraft would replace the Air Force's Cessna T-37B (now approaching 29 years old) and the Navy's Beech T-34C. The winner will be announced in early 1994, with delivery expected to begin in 1996 and last until 2005. The Air Force would begin training in the new aircraft in 1998, while the Navy plans their start for 2001.

steps of the T-33 (the original T Bird, also known as the Shooting Star), which was also built by Lockheed. Aermacchi entered the picture in the 1950's as the European T-33 overhaul and partsmanufacturing site. They teamed up again in 1989 to begin development of the T-Bird II (which is actually a modified Aermacchi MB-339). Rolls-Royce joined the partnership in 1990.

The T-Bird II is a tandem-seat configured aircraft with straight wings and tip tanks. It has one 4,000 pound thrust Viper engine, and will permit training altitudes of up to 45,000 feet. More than 5,000 Viper engines have been in service, with an accumulated total of more than 10,500,000 flight hours. In the Aermacchi MB-399, the Viper has served for over 250,000 with no aircraft lost to engine failure. The aircraft is expected to provide the military with over 30,000 hours of

### General Aviation's safety record slowly improving over the past decades

ACH'A Press Release

FREDERICK, MD -With new safety records in general aviation in 1992, the Air Safety Foundation will continue its programs to reduce the total accident rate of this segment of aviation by the mid-1990s.

Reacting Transportation Safety Board statistics released, Air Safety Foundation executive director Bruce Landsberg said, "Through renewed programs of continuing pilot education, we hope to make 1992's new records just a step on the way to even better results by mid-decade."

The safety of non-airline, nonmilitary flying, known as general aviation, has improved dramatically and steadily since modern statistics were compiled beginning in 1946.

NTSB reported today 408 fatal accidents in 1992 over nearly 27 million NTSB-reported flight hours last year, the nation's lowest total since 1958. The number of accidents of all kinds-both serious and the first time in the post-World War noted ASF's Landsberg. II era to 1,959.

slightly to 1.50 per 100,000 flight hours in 1992, the lowest in history and down from 2.57 in 1972 and 7.0 in 1946.

The total accident rate decreased

substantially in 1992 to 7.19 per 100,000 flying hours, also the lowest in history and down from 15.8 in 1972 and 77.8 in 1946. The number of fatalities, 812 in

1992, was slightly above the 1991 level but was the second lowest. annual total since 1961. Fatalities in general aviation are well below those suffered in accidents on or near railroads (1,197 in 1991), in pleasure boating (924 in 1991). motorcycling (2,808 in 1991) and nimilar transportation-related activi-

Total flying hours were estimated by NTSB at 27.19 million for 1992, an estimate that has remained around 27 million to 28 million since 1985,"These annual NTSB statistics encourage everyone worknon-serious-sank below 2,000 for ing for the cause of air safety,"

"They also send an annual mes-

The all-time high was 9,253 in sage to every pilot in America to support further improvement The fatal accident rate dropped through participation in recurrent training and continuing pilot education," he concluded.

The AOPA Air Safety Foundation

was founded in 1950 by the 300,000-member Aircraft Owners and Pilots Association to promote a reduction in general aviation accidents, at the time totaling 4,505 a year.

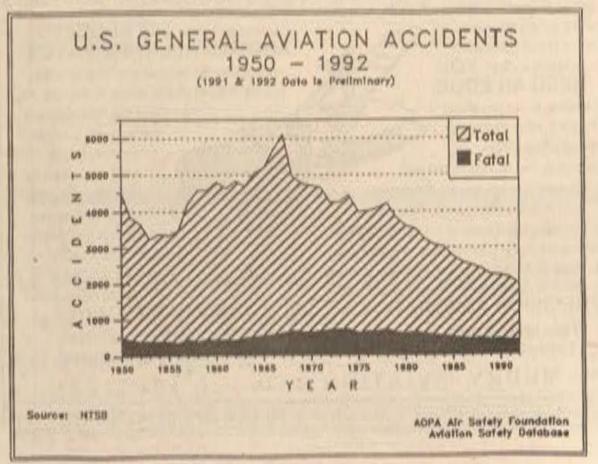
The Foundation's work is supported by contributions from AOPA members, private individuals, and grants from corporations and private foundations. Since then, the Foundation has

conducted thousands of evening and weekend safety seminars and pilot safety clinics nationwide. Its classroom training for flight instructors is attended by 25 % of all

those seeking FAA-required biennial

flight instructor recertification each

The Foundation's popular Pinch-Hitter Course trains non-pilot flying companions the skills necessary to handle an in-flight emergency in case of pilot incapacitation.



### **Orbital Sciences prepares** Florida launch of Pegasus

By Brian Gamage Space Technology Editor

A new type of launch vehicle, different from the conventional vertical at Kennedy Space Center(KSC) in

Because of this brand new launch vehicle the Brazilian rain forest could be saved from its current

The Brazilian Government chose Pegasus to provide launch services for Brazil's Satellite de Coleta de Dados (SCD-1) remote sensing and data relay smellite.

Once in orbit, the satellite will be the first of a two-satellite system intended to collect environmental data gathered on the ground by up to 500 automatic Data Collecting

The data collected will help scien-Amazon River Basin and its surable to determine its rate of degradarocket system, will attempt a launch tion, ground temperature and moisture, which will in turn help environmental engineers determine methods for preserving the precious forests.

#### **Pegasus Facts**

Pegasus-Space launch booster that is air-launched from underneath the wing of a modified B-52.

Mission - To lift small payloads into low Earth orbit at a lesser cost than other launch vehicles.

"Brazil's choice of Pegasus is tists monitor the condition of the clear evidence of the emerging international market for small satellites rounding rain forests. They will be and the need for low-cost, responsive transportation to space," said Mr. David W. Thompson, Orbital's Chief Executive Officer,

Orbital is a space technology company that designs, manufactures, operates and markets a broad range of space products and services. The company develops and produces space transportation systems, which include space and suborbital launch vehicles and orbit transfer vehicles.

Pegasus is a winged launch vehicle with three solid rocket motors that is launched from under the wing of a B-52.

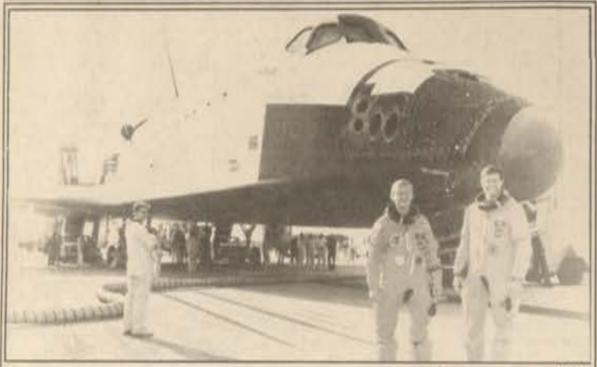
The vehicle is ferried up to an altitude of about 41,000 feet and

see Pegasus, page B8



The Pegasus Space Launch Vehicle was rolled out for public viewing in August, 1989 and successfuly delivered a payload into low Earth orbit on April 5, 1990. Pegasus is the first all-new unmanned space launch vehicle introduced in the U.S. in 20 years.

### Fill 'er up and check under the hood



Commander John Casper and Pilot Donald McMonagle Inspect Endeavour after it landed at KSC on Tuesday, January 19. The right inboard tire experienced unusual wear, there were 57 debris impacts and four to five tiles are expected to be replaced.

### Seven more shuttle flights planned for '93

By Brian Gamage Space Yechnology Eillion

The National Aeronautics and Space Administration (NASA) plans to launch eight space shuttles in 1993, with one successful mission already completed.

extravehicular activity (EVA) in

Center (KSC) on January 13 and landed at the Shuttle Landing

Facility (SLF) on January 19. The next space shuttle launch is scheduled for February 25. Columbia's seven member crew will perform 90 experiments in the Spacelab laboratory module during

the planned nine day mission.

Discovery is set to launch near the end of March on STS-56 for a planned eight day mission. The five member crew will perform atmospheric research and release a Spartan 201 satellite.

April will hopefully see the launch of Endeavour again on its The first mission of the year was fourth flight. The five member crew STS-54, which saw the deployment of STS-57 will operate Spacehab of a Tracking and Data Relay and the European Retrievable Satellite (TDRS) and extensive Carrier.

Discovery will launch again in preparations for Space Station July on its 17th flight into orbit under the designate of STS-51. The Space Shuttle Endeavour Discovery will carry in its cargo bay launched from Kennedy Space an Advanced Communications Technology Satellite, an astronomy telescope and the Orfeus satellite.

STS-58 will launch in August on the orbiter Columbia with a six member crew and the second Spacelab Life Sciences experiment.

see Shuttle, page 88

### Ambassador packs and moves East

By Joshua Mussat

The Space Shuttle Ambassador, a full scale model that has been at Spaceport USA since December 1990, is taking off.

Ambassador was leased to Spaceport USA under a short-term leasing arrangement. The replies became one of the most popular attractions at Spaceport, and subsequent leases were extended to allow more visitors to tour the mock shuttle. Approximately four million visitors bave climbed inside the cargo bay of the shuttle to see the crew compartment and a communications satellite in its pre-

launch configuration The Ambassador was built by a central Florida firm and construct-

see South Kores, page 88

### - ATTENTION CONTINUING STUDENTS -

FALL/SPRING 93/94 HOUSING SIGN-UP

1993/94 Housing contracts will be available February 1st through 12th in the Housing office, McKay Hall, Suite 278. All contracts must include a \$150.00 prepayment, paid and validated at the Cashiers office. Deadline for housing sign up is February 12th at 4:30 p.m. Contracts from continuing students will be randomly selected for available spaces. Contracts received after February 12 will be placed on a secondary waiting list.

1993/94 Housing fees are as follows:

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### Ball makes amusement parks a Virtual Reality

By Brian Gamage Space Technology Editor

Ball Corporation, and its Aerospace Systems Group department based in Boulder, Colorado, recently made advances in the field of computer image generation which will have major technological impact in many graphics based interface applications, such as simulators and, now, amusement park rides.

Ball acquired a new product in 1991 called the 944 Visual Image Generator, which allowed their computer programmers to develop more sophisticated and detailed simulators.

to fly in dangerous situations,

The civilian market had not opened up yet due to the high costs of operating the virtual reality (VR) computer systems needed to handle the intense data load.

The older simulations, however, had limitations that allowed for the pilots to memorize the patterns, which detracted from their goal of simulating a real flight environment.

The 944 would be capable of storing enough memory to let the pilot not only fly over mountains, but also down into valleys and around the

The system gave Ball designers The simulation market at the time the power to create realistic scenes,

create on a computer screen.

944 was that the graphics could be displayed in real-time, which meant that there was no lag-time while the computer calculated the new graphics setting after the pilot commanded

The 944 could accomplish these things at a much lower cost than other VR systems that used more realistic graphics.

In 1992, Ball won a contract with Veda International, a flight simulator maker, to provide the computer database for the first truly interactive amusement park ride.

Veda division that worked with the Ball programmers, and because a The major advancement of the change in software could change the theme and plot of the ride altogether.

Veda has manufactured simulators that were used to train Israeli fighter pilots.

That same successful design had to be modified to fit the needs of a civilian amusement ride.

First, it had to be reconfigured to handle approximately 1,500 people per hour, a figure relating the volume of customers to a popular amusement park like Universal Studios in Orlando.

Then, it had to be slowed down, The ride, a flight simulator on a because the average amusement grand scale, was named the park goer does not have the same

applications, such as training pilots reflections that were very difficult to Chameleon, after the 10-person trained reflexes and in-flight knowledge as Israeli fighter pilots.

And, most importantly, it had to provide a new and different adventure with each ride. This is the else in the real-time, interactive marimportant step ahead that makes this ket. ride different from, for example, the Back To The Future ride at Universal Studios, where the participants merely ride along a set story line possessing no power to change the outcome.

The new rides will allow for the participants to choose from a menu of possible thrills, like mee car driv- G-forces as they flew their fighter ing, daredevil flying or space shuttle jet straight up into the sky.

The riders will also be able to

The 944 was recently updated with a more powerful central processing unit, and it's graphics abilities were miles ahead of anything

The engineering team at Ball created fighter plane and race car databases for the ride. They designed them to be as realistic as possible so that when the participants crashed their Indy cars, they screamed all the way to the wall. They enabled the riders to feel the

The 944, when teamed up with control what they see and where \$1,2 million worth of Chameleon they go, a first in civilian VR tech- hardware, could very well be the greatest ride ever built.

### IBM stops funding of supercomputer project

SAN JOSE, Calif. (AP) - IBM has confirmed it halted funding a daring attempt by designer Steve Chen to build the most powerful mainframe computer in the world.

Chen, who reportedly is seeking new funding for his Eau Claire, Wisconsin-based Supercomputing Systems Inc., had been working for five years to develop a mainframe to compete with the most powerful Cray Computer Corp. machines. Chen formerly worked at Cray.

International Buxiness Machines Corp, had agreed to fund SSI through 1992, and had continued the funding on a temporary basis until this week, said IBM spokeswoman Marta Decker in White Plains, N.Y.

She declined to say how much money IBM spent on the project. and said the decision to stop funding was not related to IBM's budget cuts or reorganization.

'We never intended to fund SSI beyond the scope of this current agreement," Decker said. "We busically looked at all the factors and there was no product delivered."

The move does not signal a withdrawal from supercomputing by IBM, she said, "Supercomputing at IBM is alive and well."

But analyst Jay Stevens at Dean Witter Reynolds in New York said: "Obviously they are going to save some money by not funding this

Jim Olson, a spokesman for Chen, said on Friday the company would have no comment. IBM has been the leading maker

of conventional mainframe computers. It has 600 of its top-of-the-line ES 9000 computers installed around But a recent trend away from

mainframes toward what are called parallel processing" computers may have contributed to Big Blue's decision, Stevens said,

Parallel processing computers, unlike traditional mainframes, use hundreds or even thousands of smaller, less expensive processors They break down large computation problems into individual segments and run them all at once

Other computer and microprocessor manufacturers, including leading chip maker Intel Corp. of Santa Clara, Calif., also are developing parallel processing computers.

see IBM, page B8

### was geared primarily for military complete with fog, textures and If you think college life is tough, try being a human

By Roland Houle Staf Haporto

If you like the game Lemmings. you will probably like Cametek's (a child of Atari Corporation) new release, The Humans:

The story begins with "First, there was darkness. Then there was light. Then some more darkness. Then it was light again. Then the humans arrived. And it cained."

The object of the game is to control stopid cavemen to achieve cermin tasks. These objectives range from rescuing a fellow caveman certain location, to killing a

Along the way, you must discover the spear, fire, the wheel, rope and even a witch doctor. You must use these items to do such things as pole vault onto the back of a pterodactyl, burn bushes or stab evil humans before they spear you.

The game is set in prehistoric times - when dinosaurs were around, lava pits were everywhere and pterodactyls ruled the skies. Also, the cavemen were scantily clad in small, furry thongs.

The game is similar to Lemmings

in that you must control the humans to accomplish a goal by using various items. Of course, another similarity is that the ways in which the humans can be killed is very humorous. For example, make sure your other cavemen are out of the way when you "toss" the spear to them.

Despite the basic similarities in game themes, Humans can still bring new laughs to game players.

This game has one of the few instruction manuals that I actually read. It's not because the game is hard to figure out, but because the manual is filled with humor, It defines humans as small squidgy from other humans, to getting to a pink creatures with four semi-articulate limbs. It says that humans cat poisonous plants (once), sickly or very small carnivorous lizards, lava (for lizard curry) and each other. The manual also gives you a brief (and somewhat accurate) history of the human race.

With the exception of a few scenes with animation, the game runs well even on a 286 computer. A VGA monitor and sound board are recommended (as with most games). While my Stucker program was running, I ran the game without any problems but a friend had some trouble getting it to run on his Stacker.



Gametek's new game, the Humans, offers a humorous alternative to Lemmings.

Stacker drive, so Humans may or may not have a problem with

Overall, the game gets low marks for originality, but high marks in difficulty and humor.

MORRISON'S HOSPITALITY GROUP

# Def Leppard concert ticket giveaway

Show is Wed., Feb. 3, 7:30 pm. Orlando Arena

2 pairs to be won

Drawing is February 2nd

Entry forms available & accepted by the Cashiers in the Food Court.

Check at Morrison's Hospitality Group's office in the John Paul Riddle Student Center for winners on February 2, after 4 pm. to see if you won!

Winners will be posted on Morrison's bulletin board in the Student Center.

No purchase necessary to enter. Only Embry-Riddle students, enrolled in Spring 1993, may enter.

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.....1/28

### Madonna heats up the screen in sexy thriller Body of Evidence



Mike McGrath

Avion Movie Critic

Rating: ★★☆

#### **Body of Evidence**

Starring:

Madonna Willem DaFoe Anne Archer Joe Mantegna

Director: Ell Edel

Length: 1 hour, 45 min.

Playing at: Volusia Square 8

I have been seeing the previews for Body of Evidence for several weeks. I have also been watching Madonna for many years through all those different versions of "Like a Virgin.

However, there was one underlythere be sex involved in this

movie? To answer this question, I have a short little story. About a week ago, my roommate buys himself one of those portable handheld flight com-

puters/gameboys. Upon opening the package, he finds a liquid-like substance on the buttery compartment.

He proceeds to taste the sub-

Madonna's body as a weapon was on

target, however, the movie is shooting

blanks.

He said he did not know what it was. My comment was this: "Everybody knows it is battery

So what does this have to do with the movie? Well, everybody knows there is going to be sex in a Madonna movie.

From the beginning of the movie until the very end, sex plays an important role. Madonna's character (I can't remember her name because I can only think of her as murder of an older man, who is also considerably rich.

What is the weapon, you ask? It is Madonna's body. Apparently, Madonna used her ample talents to cause his death

Coming to her defense is Willem parties the plays a happily married ing question on my mind: "Will lawyer with an altogether happy family.

> Happily married, that is, until he is struck by blonde ambition. In becoming involoved Madonna's character, he tries to live with the best of both worlds. It would seem that he wants his cake and Madonna, too.

Joe Mantegna, Anne Archer and Frank Langela also star in this sexual thriller. Their performances were stance and immediately complains faultless only because the characters of a burning sensation in his mouth. they portrayed had no depth, Make

no mistake, Madonna is the star of the movie. The movie was tailormade for her.

This movie was full of scorehing sex scenes. They were so hot, Willem bad burn marks after some

Unfortunately, the writing and the storyline were poor. Dull courtroom scenes were accompanied by short and dry dialogue. I like gratuitous sex as much as the next person, but the movie could not escape Madonna) is put on trial for the the gravitational pull of Basic

Along with a weak plot, there was also a strange musical score. While Madonna was expressing herself, some kind of Latin chanting combined with dance music was playing. I half expected five guys in robes to enter the room and start banging boards on their heads. Madonna should have given her musical talents to this part.

Madonna's body as a weapon in on target, however, the movie in shooting blanks. If you like Madonna and don't mind a bad movie, go see it. If you like Madonna and a good movie, bring your headphones to A Few Good Men. If you have a broken flight computer, for heaven's sake, don't put it in your mouth. You don't know where it has been.

> \*\*\* Can't miss! \*\*\* - Worth watching. \*\* - Wait until dollar theatre. ★ - Read a book instead.

### Touch-n-Go Productions Spring 1993 Movies

Glengarry Glen Ross	4
Consecting Adults	1
South Control	
Dracula	
Last of the Mobileans	
Deep Cover	
Forever Young	
The Bodyquard	4
Distinguished Gentleman	
Aladdin	•
A Few Good Men	3

All movies begin at 8:30 p.m. In the Student Center Titles are subject to change

### TIME TRAX adds new Sci-Fi dimension

By David Gass Staff Reporter

Lately there has been a siew of new science fiction series premiers on television. Among these is TIME TRAX, the new time-travelling show from the PTEN (Prime Time Entertainment Network) that airs on the Fox network across the country.

TIME TRAX stars Dale Midkiff as Darien Lambert, a police officer from the year 2193, Lambert, an orphan, named himself after the hero of the futuristic Just War in 2129.

He is a history buff who believes in the old fashioned ideals of what used to be the United States of America. Humans in the future seem to have improved both physically and mentally; Darien Lambert has a life expectancy of 120 years, an average of 35 heartbeats per minute, and an IQ of 204. He can also slow down the speed of visual images reaching his brain by a mental process called timestalling, which aids him in being able to avoid rapidly moving objects.

In the beginning of the premiere movie, Lambert attempts to stop a criminal named Sep Dietrich from assassmating the President of the

that John Wilkes Boothe used to assassinate President Lincoln, He fails in stopping the assassination but arrests Dietrich in the process. While in jail, the assassin suddenly disappears after opening a blue envelope containing TXP. TXP is a drug that is essential for time travel-

Lambert meets Allysa Knocks, a young woman who helped create TRAX (Trans-time Research And Experimentation). She collaborates with the police to help capture Dr. Sahmbi Mordiaci, her former lover and co-creator of TRAX who has been helping criminals escape to the past. In the middle of the stakeout at the TRAX secret base underneath the Smithsonian Museum of History, Mordiaci escapes into the past and causes Allysa's death.

Lambert travels back in time to the late twentieth century to apprehend the criminals that Sahmbi helped to escape. He is accompanied by a super-computer the size of a credit card, whose functions include everything from telescopic sight to processing genetic information.

Darien also carries a device

United Nations with the stolen pistol freezes his intended criminals and transports them back to the future.

He enters the power zone for time travelling, transports back, and arrives in a bathroom stall in the Smithsonian. Apparently, he gets there just after the assassin Dietrich. and is blamed for the theft of the John Wilkes Boothe pistol in the

Now in 1993, Lambert meets a Smithsonian security officer by the name of Annie Knocks, who has a surprising resemblance to Allysa Knocks. She has been assigned to capture the thief who stole the pistol from the museum.

Darien and Allysa discover that Dietrich is here in 1993 and planning to assassinate the President of the United States, Lambert foils Dietrich's plans and they fight one on one, until Darien finally sends him back to the future. Darien decides to stay in the twentieth century and capture the rest of the criminals from the future.

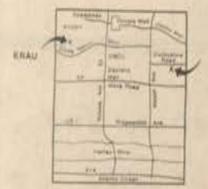
Although the premiere movie aired last week, the series should begin on February 3rd. For those with a taste for science fiction and the "lost in time" plot approach, this known as a PPT, a weapon that should be for you.

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प्राच्या कार्य कार्या कार्य कार्य कार्य Execution on Month Dates

### Tin Machine comes back

By Shawn McBride Staff Reporter

Tin Machine is committed to pleasing the rock and roll audience. This is very evident on their newest release Oy Vey, Buby.

Oy Vey, Baby is the third release from this talented quartet. The members of Tin Machine are David Bowie as lead vocals, guitar and saxophone, Reeves Gabrels on lead guitar and vocals. Hunt Sales on drums and vocals and Tony Sales on bass and vocals.

All of the material on Oy Vey. Baby was recorded live on Tin Machine's three week tour of Japan and their six week tour of the U.S.

With such a wide mixture of talent, there is some very distinctive sounds. For example, the opening of

"Goodbye Mr. Ed" reminded me a and Vision tour. In the spring of lot of the opening to Ziggy Stardust, 1991, the album was finally combut this isn't surprising, considering the fact that David Bowie is in the

On the other hand, the album's longest track, timing in at just over 12 minutes, has the very distinctive sounds of Hendrix, mixed with some blues. This track, "Heaven's in Here," has some exceptional guitar solos as well.

The group released their first selftitled album back in 1989. The music on the first album was termed 'aggressive, direct, and brutal."

Tin Machine's second album, titled Tin Machine II, was written and recorded in a variety of places. For the most part, the album was recorded in Sydney, Australia. The remaining parts of the album were written during David Bowie's Sound

pleted in England.

When you trace back the origins of Tin Machine, you find that they all started during the recording sessions for Iggy Pop's Lust for Life album. While Bowie was co-producing this album, he met Hunt and Tony Sales.

In 1987, Bowie met Reeves Gabrels. Reeves and Gabrels began playing together in public in 1988.

Bowie got the four together and the band members all got formally introduced to each other the day before going into the studio to record the first album in Montreaux, Switzerland.

After bearing this album that all fans of David Bowie will patiently await the release of Tin Machine's fourth album. I know I will.

### Delores Claiborne is no Cujo

By Keith Towers Staff Reporter

Stephen King's newest effort, Delores Claiborne, has a twist on using a first person narrative. The first person was the title character, Delores Claiborne, The local police of the island town she lives in has brought her in for questioning in a suspicious death of a senile old millionaire woman that she was taking

The entire book is seen from her point of view as we read her entire testimony to the police. When she is asked a question, the question is not seen. Rather, her answer is all we read, so the question must be inferred. This is not difficult if you know King's long, explanatory

This book is related to his previous novel, Gerald's Game, by a cen-

lost a connecting point between books. Now he has found a new one in an event, not a place.

So far, the solar eclipse has put out two duds compared to the classic horror that Castle Rock put out in the form of Cujo, Christine, and Carrie. But back to Delores Claiborne.

The book is entertaining ,and but it seemed an easy, shallow read, It doesn't have the enthralling jumpiness The Shining induces or the fun. of riding along with the survivors of the Superflu in The Stand. In both Delores Claiborne and Gerald's Game, there are quite graphic descriptions of daughters getting molested by their fathers which disqualifies them from being made into

In Delores Claiborne, Delores envisions the little girl of Gerald's tral event in the form of a solar Game being molested while Delores eclipse. After King killed the town is killing her husband. Somehow a

"The book is entertaining, and inventive In the form It is written, but it seemed an easy, shallow read."

of Castle Rock in Needful Things, he mindlink occurs between the two females. One is a mother of a molested girl who is killing her husband for the crime, and the other is being molested at the time of the eclipse. The connections between the two seem vague and of no particular interest to the reader.

Hopefully, King will come around and write another classic horror or thriller, because the last three have inventive in the form it is written, not been what we have come to expect from the modern master of horror. His most recent auspenseful and nailbiting experience has been Misery. That is, except for the epic which he created, called The Dark Tower, which is on the third book,

If he keeps contriving weak plots and subplots about dustbunnies, the mind-games of an old woman outsmarting her nurse as to when she was going to have a bowel movement, and more molestation than you can shake a stick at, he better sit makes good literature, or even just a good horror novel.

Overall, Delores Claiborne was a decent ride in the mind of an old riffs. lady, but either King is getting flat. or I'm becoming jaded. I'd prefer to think that I'm not getting so old as to not like a good scare now and then,

Big Deal/Hard Knox appears at The Other Place



Live on stage this week is a special reunion performance of Big Deal and Hard Knox. These guys play a no-nonsense, stripped-to-the-frame style of rock 'n' roll. Besides playing their killer originals, they pounded out the covers of many classic songs.

### Boneclub is really Beautiflu

By Jaylin Billig

Diversions Enflor

The alternative rock band Boneclub has recently released their second album Beautifla on Imago Records. First recorded in March of 1992, it has now been reissued, and is ready to climb the college music

After listening to the CD, I found an amazing variety of crisp, torturous guitar sounds on their six songs. Starting off with "Everything's on Fire," which is one of the best tracks on this release, Boneclub rips through heavy, hard-hitting grunge back awhile and think about what until it comes to Slomo, which, though it may be a slow song for them, is still a rock-hard four minutes of vocals and rhythmic guitar

> We're not talking about just mother alternative/grunge/Seattle sound rock band. When one hears the songs on this album, one gets the

"The overall impression these five . . . give is one of individuality . . . "

feeling of having sharp needles first tour was in October of 1991, thrust into the ears, of seeing stars from the heavy blows these songs

Boneclub has definitely evolved into a "respectable" grunge band, Formed in 1989 by vocalist Andrew Arashiba, brother Ducey Arashiba, and bassist Pat Kallemeys, the group played together until the end of the year, when Andrew spent a month with Scattle's Skin Yard as their vocalist. They reformed in 1990, and in 1992, Boneclub readmitted founding member Kallemeyn and added second guitarist John Hausman.

ties), Boneclub has done some very interesting and exciting things. Their ing.

and since then, things have been going consistently uphill for the Minneapolis-St. Paul band. In only a year and a half, Boneclub has finished three European tours and more American road trips than they can

The overall impression these five artists give is one of individuality and emotion. Boneclub is difficult to pigeonhole into one category or another. Rather, they stand apart from the rest with their diverse and heavy-hitting style.

Check out Beautiflu. You'll find it Though still a very young band therapy for the thrasher tired of that (all members are in their early twen- old, form-letter type of hard rock, Take two and call me in the morn-

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### Aerospace Society ΘΦΑ

By Joshua Mussaf Histories.

Thanks to all the members that showed up for last week's meeting. A special thanks to our new advisor, Dr. Brickson, for his informative presentation. Our meeting this week will be held at 7:00 p.m. in room E-611. Stephanie tells us that there may be a special surprise movie on Space Station Freedom from the archives of Dr. Erickson, or something like that, so be sure to attend!

Dues for the spring semester are due today to be put on the official club roster. The \$5.00 can be paid to Alicia this week.

Some of the events planned for this semester include a trip to Space camp, located just outside of the Kennedy Space Center, on February 21. The cost will be only \$6.00 and includes a personal tour of the facilities, giving you the chance to go through astronaut training by "riding" the simulators. Also included is admission into the Astronauts Hall of Fame.

Other interesting events planned for this semster include a BBQ with ERPSEDS on Saturday, February 6, various speakers including a Space camp speaker and the president of order now!

the Metro Orlando Space Society in mid February. And of course we have our anual fundraisers. We will be having a car wash on the weekend of the Daytona 500 and we will have an opportunity to work in the Winston Tower during the 500.

Anyone who is interested in working on the SpaceWeek committee, please talk to Matt Devitto, SpaceWeek Committee Chairperson at the end of this week's meeting. This year's SpaceWeek is planned to be the biggest and best in years. Please get involved!

During the 80's, NASA sent out many planetary probes. Information about their current status is regularly reported in The Avion, but if anyone wishes weekly updates, please contact Eric, who can obtain that information for you through the Internet computer system.

Also check our glass display case in the UC for the latest space news from around the globe.

Finally, they're back, unfortunately. Those lovely Aerospace Society club T-shirts, designed by Brian Gamage and Matt Devitto, will soon be available again because of the huge demand after the first shipment. The cost for each shirt will be only \$6.00, Supplies are limited so

By Krissy Kopecky Monte

Welcome back everyone! Hope you had a great vacation, Get ready for a new and interesting semester with the SAA.

There are a few people the SAA would like to thank first. For their work on C&O Day, a special thank you to Brian Colaluca, Harry Shinn, and Scott Wilson. If you have seen the new SAA Member Book, then you know that Scott Newcomer and our advisor, Steve Nordlund, both deserve a round of applause. It looks great guys!

Since last semester, there have been a few changes in our officer positions. Scott Wilson is now the President of the SAA and Brian Colaluca was recently voted to fill the Vice-President vacancy. Congratulations to both of you.

To fill you in on a few upcoming events...a trip to NAS Mayport is Contact Harry Shinn for details if come to attend.

you would like to go. Space may be room B513 at 7:00 PM. Elections limited so act quickly. The upcom- for the spring term will be held and ing SAA/SF District III Convention objectives for the term determined. is being held in Gainesville at the Several activities have been suggest-University of Florida, So far, ERAU ed which include a balsa glider conhas the largest delegation to attend. The group will be presenting a seminar called "Starting and Strengthening an SAA" -let's wish all the delegates good luck,

In the works...there are a few ideas being considered for fund-raisers. Details will be forthcoming. If you have not yet heard of Daytona's hockey team, the Sun Devils, get ready to. The SAA wants to plan a hockey night. Listen up at future meetings for dates and times. We would also like to plan a one day excursion to Space Camp in Titusville and/or a trip to NewsCenter 2

Don't forget that general meetings are Tuesdays at 5:30PM in the Sprunnce Hall Atrium and Executive Board meetings are Thursdays at 5:30PM in the Sprunnce Hall confertentatively scheduled for Feb. 27th, ence room 206C. Everyone is wel-

nationally recognized consulting

firm specializing in airport and avia-

tion facilities planning. The topics

has been involved with and

business, including the collection of

dues and applications. The meeting

is open to all members and non-

members and AAAE applications

wish to join. I strongly recommend

that everyone attend, for this is a

The meeting is in Room 206A,

second floor, Spruance Hall at 7:00

speaker that you should not miss!

CAREER OPPORTUNITIES!

Public Finlethern

By Kelly Watkins

Hey Howdy gals!

I am so very sorry for the mix-up in last week's article. I warned you that computers hate me. I honestly don't know how I managed to put in the Compass Report instead of the real article. (You do know what the Compass is, right Shiny badges?!... anyone?... Bueller?.. Bueller?.. Alicia?.. Bueller?..) Sarah kept telling me not to push F8, Maybe that was the evil key responsible. Who knows. (Oh, well. You didn't miss much. Just a rush saga in our soap opera. You'll be able to catch

up on this week's show.) Original over Crispy.

Congrats to you girls who have proceeded through White Rose, I know we're not supposed to influence you, but believe me, WHEN you decide to do it, you will not regret pledging Theta Phi Alpha. (I

are confident in our sorority. As Erica says, "Theta Phi kicks (BLEEP!)") Give it a try and you'll wonder why you didn't become part of our family sooner. It will be one semester you won't soon forget! Just ask Kim.

Hail hail Captain Watson! But remember, we're still waiting to hear your final count. Until then, Brewser is still our Queen of Theta Phi. Long. live the Queen!

Sisters, don't forget you-knowwhat on Monday! And this Friday in letters week. Got it?

Can you guess who were the ad girls this week? (There were two.) You didn't tell, did you, Ellen? In addition to these ads, starting next week, I will feature a guest on Thetaville News. A special sister-ofthe-week type thing. Who will she be? Guess you'll just have to wait

I would like to leave you with one final thought for the week for you to ponder about during classes when say when instead of if because we the ole teach is babbling: "Cool!"

### **Screaming Eagles**

By Michael Bansch Vice President

The first meeting of the Screaming Eagles Model Airplane Club will be held tonight Wednesday January 27 1993 in

test, static model display/ contest and even a cross country flight with goals of defeating the current record. If you have any other ideas or contributions that you would like to make please let your officers know.

Remember this club is nothing without its members or their support and effort. We look forward to your companionship and contribution in our efforts to promote our hobby and just plain have fun.

one remember to ask on Monday.

Free motorcycle lessons are being

offered this weekend by Blake

(YEAH RIGHTH!), Thanks to all of

you who gut at the rush table! Now, the first installment of the MR

WIZARD fact of the week (except

Mondays). Do you know what caus-

es that film on the inside of your

windshield? It is caused by Ultra

Violet rays from the sun breaking

down your plastic dashboard. The

chemical breakdown releases atoms

which bond to your windshield

Glass cleaner will take it off

#### 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 Avian 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) 226-6049.

By Cralg Morse

A belated welcome back to all, especially the newly-initiated brothers. Prospects: last week was a blast, Executive Officer of Thompson but the best is yet to come. All of you who volunteered for the races Consultants International, an intermake sure that you talk to Luke or Craig about the orientation on the 26th. Vinnie and Rui, stop buying all the hair gel, none of us normal will include some of the projects be haired people can find any in town! The new brothers list should be out

We will also conduct company by now, if you have not received (IEFF!).

By Tore Gudroed Markussen

Let me pose a question to you.

When do you think of Brotherly attibutions, what words come to your Although he maintains a full course load of classes and is a recipient of an athletic scholarship, he is never too busy to assist in any manner pos-

Free For all" with the Swedish

Bikini Team, and a spanish fly cele-

bration. It is rumored that Paula Abdul may show up for the later event, with or without Emilio, And finally, a road trip to New Orleans, Daytona Beach.

repeat, "Rush is over," For all those brothers who gave it there all, you may pat yourselves on the back. I'd like to congratulate any perspective that has chosen Sigma Pi Fratemity to pledge. Sporting D.B. of the week is Brother Tannenbaum, Let it be written that all shiny pins continue to watch over your hurling brethren during time of crisis or any such circumstance that may arise. Last but not least, brother of the week goes to the motley crew who took time away from there busy schedule to clean and retrofit the house. In response to Theta Phi Alpha's challenge of dominance over our tug team, we commend you on your intrepid braveness but feel it hardly worth the sweat on our brow to squander you and your cohorts in a pool of mud. "Do not let what you cannot do interiere with what you

# Semper Fidelis Society

By Michael R. Brunnschweller President

It is an honor and a privilege for me to write this article about 2nd Lt. Cleve McFarlane's commission in the United States Marine Corps. I have known Lt. McFarlane for almost two years and went to OCS in Quantico, VA with him for a total of twelve weeks. After hard work and true determination, Cleve received his commission on December 10, 1992. This day marked the end of his college and PLC career, but the beginning of responsibility and excellence for which the Marine Corps is known throughout the world. It is not easy to become a Marine Corps Officer. Only a few chosen people are worthy of being called Marines. 2nd Lt. Cleve McFarlane is now a leader of

Cleve transferred from the Air Force Academy Prep School to Embry-Riddle and immediately got involved in the PLC program. He got accepted into the program with a guaranteed flight slot and was required to attend two six-week sessions at Quantico, VA during the summers before graduation. His presence at OCS could not be overfavorite target for the instructors. Lieutenant McFarlane!!

Those who know Cleve personally can imagine why! His leadership traits soon bought him the respect of his peers. When put into a leadership position, he handled every situation in a professional and calculated manner, keeping everything under control. His mental and physical limit and determination, however, was not put to the test until he returned for his Senior Session at Quantico. During the first week of training he sprained his ankle. Unable to perform his best, fighting pain and the growing scrutiny of the instructors, Cleve still kept a positive attitude and did not disappoint his peers during the various Fireteam maneuvers, Cleve and I both kept each other focused on our main goal: to graduate OCS and become leaders of Marines! With his determination, he graduated from OCS and was on his way to become an Officer in the Marine Corps. On the tenth day of December Cleve McFarlane received his Commission in the Marine Corps, with family and friends witnessing the ceremony. Cleve McFarlane is now attending The Basic School in Quantico for six months and he will then proceed to flight school, I regard it as an honor to have gone through OCS with Cleve and am proud to call looked, since he was an immediate myself his friend. Semper Fi,

### Air Force ROTC

By C/Maj Scott Kulka Public Affairs

In the early morning hours of Friday, January 15th, a group of cadets from the Air Force Base in Valdosta, Georgia. The purpose of the visit was to allow cadets to talk to active duty members in the career fields they plan to enter. Two pilot candidates, Bill Lockhart and Jon Shaffer, were lucky enough to receive F-16 rides.

In the morning, the pilot candidates headed off to egress training, while the rest of the cadets went to the hangar where crews practice loading F-16's with different armament. Some enlisted personnel gave a walk-around tour of the inside and outside of the F-16 so as to give the cadets a better understanding of the plane's functions and capabilities,

Afterwards, the cadets split up into different groups, One went to the F-16 simulator while another on another base trip. went to the bombing range to watch

the two F-16's carrying cadet Lockhart and cadet Shaffer execute some bombing runs. During the bombing runs, Col. Powers (Det 157's Commander) gave the cadets some inside information on what was happening inside the cockpit. The few remaining cadets went off to learn about their career fields of

After coming together for lunch at the NCO Club, the cadets split up once again. The cadets who didn't fly the simulator got their chance to test their skills at air-to-air combat. while the rest went off to see what their potential career fields will entail. Some of the career fields included Intelligence, Public Affairs, Maintenance, Engineering, Flight Surgeon, and AWACS crew

After the long day, the cadets loaded up the bus for the trip home everyone sporting patches from the 70th Fighter Squadron, and planning nhead for the next opportunity to go.

Marylin Sheddan is our advisor.

the need to set up for the Activities

Fair, however, the turn out was

excellent. A lot of enthusiasm was

expressed by the 45-50 people in

The Activities Fair yielded over

The first meeting was short due to

### **ERFSEDS**

By Kelth Sterner Public Flatetione

The Embry-Riddle Future Space Explorers and Developers Society (ERFSEDS) was chartered here on campus late last fall. We are a chapter of the Students for the 40 more prospective active members Exploration and Development of Space (SEDS), as well as the SEDS-FL Headquarters.

SEDS is the world's largest space enthusiast organization for high school and college students. Operated entirely by students, SEDS is working to prepare this generation for the exciting opportunities and many benefits from space explomuon, SEDS members have participate in a wide array of activities including: building SEDSAT1, a satellite to launch in March 1994; building a full-scale mockup of Pluto Fast Flyby spacecraft; and developing Get Away Special payloads to fly on the Space Shuttle.

We would like to thank the student body for the incredible support at the Activities Fair, and at our first meeting of the semester. Our officers for the Spring 1993 term are:

President Sarah Brierly Vice-President Cindy Bennett Craig Cavalieri Secretary Keith Sterner Public Relations David Hausman Treasurer

who will be contacted by mail. So if you are one of those people, keep looking in your box, If you are not,

attendance.

get to a meeting and let us know that you're interested! We can also be reached via e-mail at: erfseds@erau.db.erau.edu Our tentative February calendar offers lectures from Jim Bacchus

(Senator) and Bob Crippen (Astronaut), a trip to Space Camp and a possible trip with the Central Florida Astronomy Society (CFAS) to the Keys to attend the "Wintell Star Party,

These are a few of an unlimited source of ideas that will require input from you, our newest members to be achieved. If you're truly interested in space, come check out our space program! We meet on Tuesdays at 6:30 PM in the Endeavor Conference Room (upstairs in the UC). If you can't make it to the meetings, drop us a line in our Student Activities box, or via e-mail. "Ad Astra Per Ardua!"

By Tom Mistretta Public Relations

Welcome back to another semester of education, learning, experiencing, and two ton fat chicks in bikinis. Let's start with last week's events. The all-Greek rush party went over really well even though Lambda Chi showed us where their brains really are. Our rush party on Saturday was pretty crazy, just ask any other Greek (Rob, I love you too); If anyone is wondering, the

day (actually the Friday after St. Pat's) for an all-out open bash. Thanks to Brother Jim Villano for

his hip thrusting rendition of Greased Lightning and to all the other Greasers involved.

Congratulations to all the new Brothers. You really EARNED your letters. Remember that plaque is plotting against you, so brush twice a day.

On a final note: Those individuals who are accepting their bid, show up to the house at 7 p.m. sharp tonight in shirt and tie-no, pants aren't Band will be back on St. Patrick's optional.

#### By Peter Maintire Frankfore

I would first like to thank all the members and non-members that stopped by our booth at the Activities Fair last Wednesday, Remember, at anytime you need any information on AAAE, just drop a

We have a major change in our agenda for the January 27th meeting. Our planned speaker was unable to will be available for students who address our club at this time, but the Graduate Student Association has graciously agreed to let our members sit in on their planned speaker.

note in our box in Student Activities.

Arnold W. Thompson, A.I.A., will be the speaker for the meeting. p.m. on January 27th. He is the founder and Chief

By Dennis J. Martinez Public Finistions

This is just a reminder that on January 30 (this Saturday), the Christian Fellowship Club will be want to attend this if you can! It will in the SC Conference Room.

be a lot of fun, and we all need to relax! Keep up the faith, and never forget: The Lord Will Provide! Also, to anyone reading this column for the first time, you are always welcome to join us at our regular meetgoing to St. Augustine. You will ings on Saturday nights at 6:30 PM

By Cadet Jaye Howell Staff /Tepodar

The graduating seniors recently received their branch assignments that they will be commissioned into. The four aviation appointments were given to Cadets Matthew Kuhn, Ray Meadows, Hilton Nunez, and John Wolf, Receiving appointments in the Ordnance branch were Matthew Evans, William Lewis, and branch.Two cadets also received appointments into the Military Intelligence branch: Cadets Jonathan

Bosten and Shonda Brown, Cadet. Todd Weishaar received an appointment in the Signal Corp branch, while Cadet Robert Rolison received his appointment into the Infantry branch. Cadet Christian Carter received his appointment into transportation Command, and lastly Cadet Jon Jackson received an educational delay from the judge law school. Eleven of these cadets were assigned to active duty while Henry Sautin, Joseph Lineberry and four of them are going into the schedule. Some of the scheduled Luke Calhoun received commission reserve component of the Army, into the Medical Service The Cadre and cadets of the Eagle battalion congratulate you and wish you the bear of luck in all you do in the military.

Advocacy Group so he can attend

imagination? Maybe you're thinking of valor, courage, moderation and self discipline. These characteristics are present in different fashions. But there is one brother who'd like to focus on. This exceptional brother is relatively new to fraternity life and has become a unique fixture to those who are fortunate to know him. How could we forget the incident on the road trip to the University of Florida. He was so excited to visit another Sigma Pi chapter, he could hardly contain himself with his display of delight! In fact, we had no choice but to partake of his sparkling wit and humor. This, of course, was due to his giving nature.

sible. The brother I am talking about is Jeff Bourke. In addition to his busy schedule he has gained support of the chapter and became our new social chairman. If his past has any bearing on this semesters events, we shall be in for the time of our lives! Jeff has conceived a vigorous event parties include a "Roll in the Hay" party starring the Mandrel sisters and Winona Judd, a "Cosmic Bikini

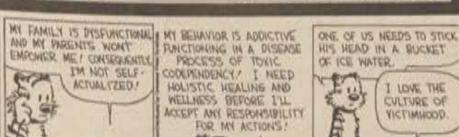
Iouisiana for Mardi Gras is in the planning stages. The first eight brothers to pay up get to ride in comfort. Yes, you guessed it, the Grand Chapter has agreed to hand over the Falcon 50 for the week. I am sorry Per, you don't get to hold the keys, Captain Nemo will be free to type rate any brother who wishes to be checked out on the jet for a day or two after we arrive back to Now that we have taken care of the nitty-griity, let's look at this past weeks events. Rush is over. Let me

NOTHING E DO

by Gary Larson

### Calvin and Hobbes

### by Bill Waterson Far Side



DBYIOUSLY, IF HE EVOLVED FROM A THOMBALL, IT

RAISES TOUGH THEOLOGICAL

CURSTIONS

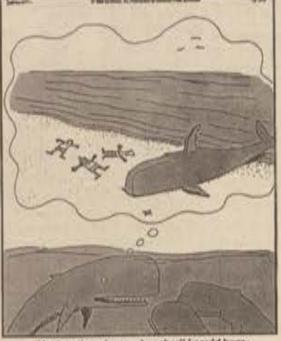
FOR HIM.





LIKE THE MORALITY OF THROWING ONES PRECURSORS AT SOMEONE? SURE, AND WHAT ABOUT SHOVELING

ONE'S GENETIC MATERIAL OFF THE WALK?



"And so there I was-beached! I could hear voices all around me, but I couldn't go forward or back. And then it hit me: I could roll!"



The ever-popular Donner Party snow dome



I LIKE TO YERR WORDS

WHY IS THIS SHOWMAN LOOKING AT A SHOWBALL?

HES CONTEMPLATING

SHOW MAN EVOLUTION



IF GOT YERBED



I'M NOT SELF



YERBING WEIRDS LANGUAGE





Cossaccountants









TO UNDERSTANDING:



Snake department stores

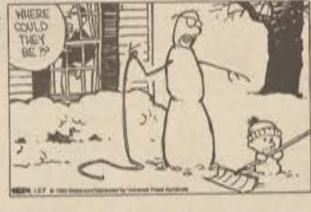


More bivalve lore



Outland





by Berkeley Breathed



And then, just as he predicted, Thag became the channeler for a 2 million-year-old gibbon named Gus.



"We're screwed, Marge. Big Al was our star attraction, the king of the show. ... And now he's gone."











Carlton falls for the old rubber-scelpel gag.











With no one looking, Konor would secretly sprinkle on a few sprouts.

#### -Autos for sale

1984 Ford Event, \$1300+ in engine and transmission overhaul. Have all receipts Body and immelor in good consistem. Huns good his does not idle very good. Asking \$1000 Ask for Las at \$22,0496

1987 Honda Accord 87,000 mi \$4,900. Call Wanda Hatfield Rxt. 6120.

1967 B.S.A. 500 single. New battery, chain, exhaust pipe, mrffler, esc. \$800 OBO. Price will go up if I flaish up the little things. Call-John et 257-5107, P.S. Bike has greed Plorida

1987 Manda TX 7, 5 speed, ontoof, not tires excellent condition). Call 257-5029 between RI30-5:30.

1986 Meoury Sable LS, 83,000 mi i'yw P/s P/I Tiltwheel, cruim, excellent car \$3,495, Call

1986 Honda Interceptor 16,500 miles. Karkes exhaum eys. Rod and Black, rejetted earliet. Runs great and looks better, \$3,000 mg, to hen offer, Call Sects 756-0935.

Camaro- VS, AC, Automatic, Alum wheels engine and transmission excellent condition body, minor work. Black w/ black interior, \$550 states included. Need pay tultion or goodbys Riddlef \$1,300 OBO Call Man 257-6851

#### -> Roommates

Roomate needed, Location: The Breakers (1.5) miles from school); very nice area. \$165/month to altere more or \$240/month for own room. Contact Ray or Mark at 25%-3972. Please leave meanings if not horis:

Rosen for most in a quint Post Change nationhood. Only 15 minutes to school. Private home with numerous amenities! Runy at \$200 / month it will go fast! Call

Mature female wanted starting mid-Pelinuary to share 2 businsom apr. \$240/ma. + 1/2 electric and phone. Clean, swimming poot, manis courts, no pers. Chose to echool on Cyde-Morris & Beville Road, Call 322-1409.

Roomman resided to fill budroom in 4 beil/1.5 bith house in South Daytona. Male or Female Non-smoker preferred, \$250/ ma. All utilities paid by owner. Call Kim at 756-8560.

For rent: Private room with bath. All utilities 5300 a month from first of March 1993. Call avening 258-5901.

#### Misc. for sale

10 speed mountain bike, only used a few times, needs new year changing cables and, minor adjustments. Bought for \$160, will sail for \$80, Call John R. at 253-6065.

Super Mitendo Entertalament system. Includes control dack, two controllers, organization center, 4 games and hint books. Only \$250 firm (over \$375 value ) Call steve

Refrigerator-tream color, no frost freezer-top, 16 cubic feet, 4 years old, clean! 5300 Call

Boxes- sheep, small, medium, large packing type wardrobe boxes too. Used once: excellent condition; call 672-6801.

For Sale: Pull set of 528 Wilson Golf Clubs. \$75 ring. Call Mirrf 760-8866.

Custom subwoofer with 2 Alpine 10's 300w power handling. Caver PMA 2150 300w. power amp with crossover. Rockford Forgue Punch 75HD 120 w power amp. Make best offer. Ross at 257-1825 / Box 2698.

Dismoond Back Master Racing Bicycle 14 spined Shimano 105sc w/ clipiess pedals, sur race wheels, aerobar, and wireless compa included less than 200 miles \$650 OBO, Call Rox 257-1925.

Salnigh Technium 450 touring bicycle 18 speed Shimano w/ dipleas pedals, frame pemp, and aero bar mint condition \$300 OBO. Ask for Bon at 257-1825.

Sailboard \$225, 121 Kerma beginnere board Two sails: 5m starter-7m speed. Clip-onadjustable boom, I piece composite mast Juny 756-7965 box 6595.

Waterbed for sale. \$250 OBO. Call Latin @

Large white sleeper-rofa, \$35 Call Clif @ 258-5852.

For sale-RC model sirplane excellent condition - includes: Putaba radios, 3 axis control, .25 engine (brand new) moving must sell. \$200 OnO. Call 756-8210, (all equipment included).

6'6" Grizzly surfboard, \$100 OBO, 756-

PMI Tracer Paintgun. Tor commant air, 8". 12", 14" barrels, viewloader III, speed bolt. 5225 OBO, 756-9259.

Stillwater darign 2X10 kickerbox. Includes two - 10" woofers. \$150 OBO. 756-9259.

#### → Miscellaneous Multi-engine flight training or hour building.

Ply at your convenience, \$85/hr dual - \$75 dual block time. This is not time sharing and is the best price in Daytons. Call Jack at 756-

Flight instruction. Start the new year right. Learn how to fly. Avoid Daytona airspace and delays. C-152 538.50/br. C-172 \$45,00/hr. Contact Karl at 756-7061 for more

#### 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.

Microwave oven - Kenmore, like new. \$100 frim. Call John 258-1829, pay cash pick up

Stofa. Contemporary style sofa for sale. 2 years old. Asking 5195 OBO, Call 238-3390.

Nintendo for sale. If games plus cleaning kit included, \$125, Call Chris 255-3126.

Por sale: Snap-on Basic Tool kit. Same as in bookstore, Almost new, \$350 OHO, Call. Chris 255-3126.

Marthing couch & chair (bomt orange), side chair (gold) two end tables \$300 for group (will sell separate). Call Wands Hatfield

Open water scubs diving pertification. Dive at Discover Diving in Indoor pool. Certificate expires 5/93. Retail at \$125. My price \$90. Call Stove at 248-2181.

Needed! box spring for single bed. Call Pete Mt 248-2962

Wanted: T.V. 21" color, used but good. Hvenings 258-5901.

Motorcycle service available - from changing time and brakes to full service. 20 years experience. Contact Stove at 767-2357 after 5

Car repairs - if you need bely with your car, give me a call. ASH certifiedd mechanic. Call Panick at 255-2132.

Ground and flight trainings ground school for private, commercial and instrument. Pull course \$125. Low rates on all flight training. all done outside of the ARNA. Call Ray (CFI), AGI) 322-2310.

Flight instruction - all ratings fast - fun efficient by experienced instructor/ sirline pilot. Local - New Smyrns - low rates. Halph Raymond 756-8759.

Flight instruction for private, commental, BFR or to brush-up. Cheap rates for instructor and aircraft. Tailwheel in Super Cub also svailible. Call Jim 21 760-1630.

Multi-engine (light training 570 hour block time. All other certificates and ratings availible. Call about combination packages Don 677-9730.

Start the year right. Plight instruction at reasonable rates. Fly at your convienence. Avoid Daytona sirrpace delays. C-152 \$45/ hour private, commercial, instrument, CFI ratings availible. Call Karl at 756/7061.

Learn to fly - \$30 Introductory flights, Biennials, scenic flights, serial photos of your borne. Call (904) 788-5192, ask for Matt.

Plight instruction - private, commercial, multi-ingles, instrument Call Kevin Lapinsoni 253-8235,

#### + Personals

SATANIC MECHANICI The air grows warmer, the sky grows brighter. The acemingly ever-present shadow has disappeared from campus.

I never enjoyed the "Halls of Medicine."

ALPHA RTA RHO As we wait your response to our football challengs, we are starting to wonder if we're dealing with a bords of gasks or someone with some halfs. Which is 117 We can't tall SIGMA CHI

I'm here in Daytons Beach just thinking. about you. I miss you dearly. I can't wan to tox you. LoveNIIFTALL

Appetite for destruction.

Show respect for age. Drink good scotch for a

LCA BOYS:

Have a nice time last Saturday? We did! Wa thought the police added a nice touch to your formal soirce. See you on the courts. Love RANDOM VIOLENCII

P.S. Stand back and lot the big dog est!

Experience is something you don't get until after you need in

THE CUTH GIRL IN THE RED CAR: If you were beeping and waving at me, I'm sorry I looked at you like that: I thought you were waving at someone class. Next time I'll. BOX 9137

Serving coffee on an aircraft causes

Autocracy is based on the proposition that one man is wiser than all other men. So who decides who's wiser?

THE BATHROOM PHILOSOPHER

I'm glad you might have a job. If you go I'll miss you alor. And, I'll always be here for you. Sorry I warn't home when you came

You know it's going to be a bad day when you put your bra on backwards and it fits

#### **GREEKS & CLUBS** \$1,000 AN HOUR!

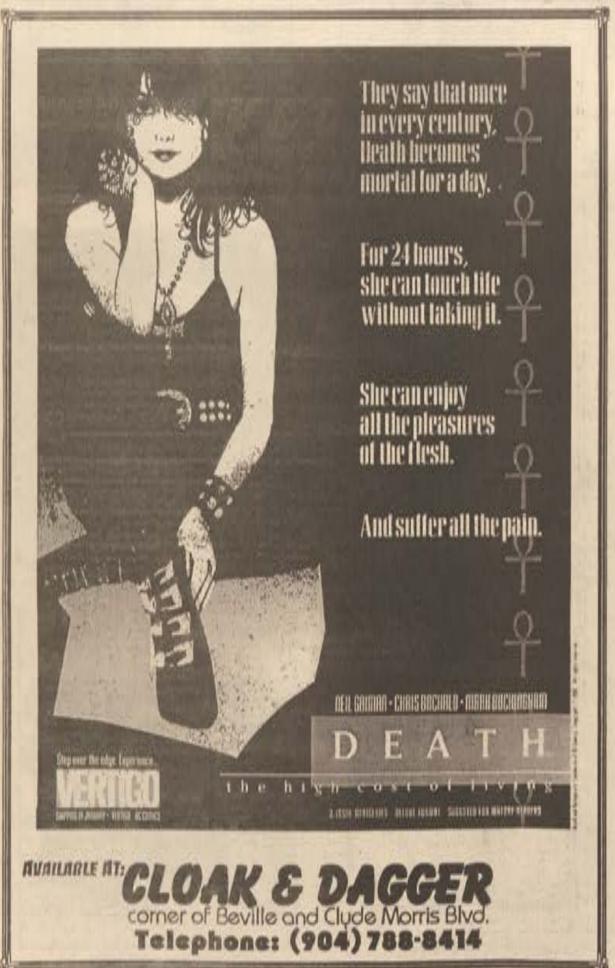
Each member of your frat spromy team, club, etc. pitches in just one hour and your group can raise

Plus a chance to earn \$1,000 for yourself!

St.000 in just a few days?

Ne cost. Ne seligation 1-800-932-0528, ext. 65

## This Week's Movie is: Glengarry Glen Ross



### (continued from page 82).

NASA is projecting the launch of Discovery on STS-60 to be in November, The six member crew, including a Russian cosmonaut, will operate the second Spacehab module. This mission will mark the 16th time the orbiter Discovery has succossfully launched and then safely returned to Earth.

The 1993 shuttle manifest concludes with the fifth launch of Endeavour on STS-61. This will be the mission that attaches the corrective equipment to fix the aberration in the Hubble Space Telescope

There are only three years left before the shuttles will be used exclusively for the construction of Space Station Freedom and many of the missions in 1993 will involve extravehicular activity.

The one EVA that will probably be the most celebrated and closely watched is the attachment of the Harris-built optical instrument to the HST. This maneuver will prove, as have other EVA's, like the satellite retrieval aboard the first Endeavour flight, that our astronauts are capable of performing critical activities in the vacuum of space.

These EVA skills and the infor-mation gained from these operations will be key to the successful construction of Space Station Freedom, which will begin in 1996.

#### $\mathbf{IBM}$ (continued from page B3)

In December, IBM announced it would accelerate its own development of parallel processing and planned to produce early models sometime this year.

Analysts estimated last year that conventional mainframes still contributed about a third of IBM's \$65 hillion annual revenue and two-thirds of its annual profit.

Last year IBM said it planned to

eliminate 25,000 jobs in 1993 on top of the 40,000 cut last year. And this month, the company shocked the corporate world when it said it lost a record \$4.97 billion in 1992.

### (continued from page B2)

ed by a crew of 39 persons working for 18 months. The orbiter is transported in 18 huge shipping containers. Once at its destination, it takes approximately 20 days to assemble

The replica, made of steel and fiberglass, offers visitors an astronaut's view of a space shuttle flight deck, crew quarters and cargo bay. Ambassador is 122-feet long, 56feet high and has a 78 foot wingspan.

The lease has now run out and the new owners wish to take the replica. to South Korea to show off this American achievement to the rest of the world.

But don't fear, if you did not have the opportunity to see the inside of a shuttle, Spaceport USA is in the process of acquiring its own.

A \$1.7 million replacement should be in the same location as Ambassador by the end of the year.

Spaceport marketing supervisor Tom Blair said the new orbiter will be "as exact as possible," mimicking the present NASA orbiter fleet of Columbia, Discovery, Atlantis and Endeavour.

The name of the new shuttle replica will be determined by Florida students in a contest this fall,

### Pegasus (continued from page B2)

released. After a five second free fall the vehicle's first stage rocket motor fires beginning the sequence that

takes the craft into orbit. Pegasus can deliver payloads of up to 1000 pounds into low-Earth orbit, with the option of an additional liquid fourth stage that would

increase its payload capacity. The Brazilian satellite launch will originate from the Shuttle Landing Facility (SLF) at KSC with a launch window of February 8 through February 21.

NASA will provide the B-52 that Pegasus needs to attain launch altitude as well as all of the range controls involved.

"Orbital has seven launches scheduled for 1993, which will make this a very busy year for us," Orbital spokesperson Laura Ayres

This will be the first and only launch from the Florida location. The remainder of Pegasus' missions will originate in California.

Creations is now Available

Student Activities office, Library, A-Building