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AeronauticaB1
 ClassifiedsB7
 ClubsB6
 ComicsB5
 Data TechnologyB3
 DiversionsB4
 Space TechnologyB2

AERONAUTICA

CitationJet visits Embry-Riddle campus during flight testing

By Melissa Wolfe
 Classifieds Editor

On Monday, October 12, Embry Riddle was host to the latest Cessna CitationJet. The plane made a brief stop to refuel before the trip back to Wichita, Kansas where flight testing will continue.

Currently the crew is flying the aircraft cross country to built time on the engines and airframe. They will put over 300 hours on the system instead of the usual 150 hours.

This jet will fly faster, higher and farther than the original Citation 500. Size wise, it is bigger and almost one ton lighter than the 500 and faster than the Citation II. The new CitationJet is expected to compete with other aircraft such as the King Air B200 and the high end turboprop aircraft.

The innovation aboard this new jet are vast in number.

This is the first business jet built with the first natural laminar flow wing. When air begins to flow over a wing, it does so in layers called laminas.

These laminar flow with the shape of the aircraft's wing and on a conventional wing, begin to break up after five percent of the surface has been traveled.

This break up added drag and increases fuel consumption which limits the performance.

This new wing lets the CitationJet fly trip in less time and use less fuel than the leading turboprops.

Another important innovation aboard the CitationJet is the FJ44 turbofan engines.

A typical turbofan engine has 2,500 components while the FJ44 uses about 700. This reduction in components significantly decreases the weight and increases the efficiency of the engine.

The FJ44 weights in at 450 pounds, making it the lightest jet engine around. Reductions in the number of engine parts in the engine can be attributed to the milling of metal.

The fan is milled from solid titanium rather than having individual fan blades.

The compressor rotors are also milled titanium. Despite of the engine size, 24 inches in diameter and 44 inches in length, the engine delivers 1,900 pounds of thrust. The size of the engine contributes to the low drag factor which allows for up to 13 percent more range and 17 percent less drag than the original Citation 500.

The new design also allows for easier inspection. The entire hot section can be removed while the engine stays mounted to the airframe.

The flight deck's design eases the

workload of the pilot. The technology is sophisticated thus making the aircraft much easier to fly.

This jet has been designed for one pilot operation.

The instrumentation includes a Honeywell SPZ-5000 Digital Flight Director/Autopilot system, which uses a 5 inch x 5 inch Electronic Attitude Director Indicator (EADI) and a 5 inch x 5 inch Electronic Horizontal Situation Indicator (EHSI). The system also includes a digital, three axis autopilot system.

The SPZ-5000 uses a IC-500 Integrated Computer which allows the SPZ-500 to incorporate a symbol generator into the Electronic Sight Instrument System (EPIS) along with the autopilot/yaw damper system.

This integration reduced the number of wires and avionics boxes creating a lighter and more compact system.

The CitationJet uses Bendix/King avionics which has the Dual 760 Channel Communications Transceiver with a digital display of two frequencies which can be selected by a toggle switch. Weather Radar (RDS 81) is also installed along with a KLN 88 Lorin C system.

The KLN 88 includes 40,000 element data base, split screen CRT display, and built-in NAV graphics.

To complete the avionics package



Photo courtesy of Cessna

The new CitationJet is designed for one pilot operations. With all of the state of the art equipment, the latest Cessna sells for \$2.69 million.

The CitationJet is equipped with a Radio Magnetic Indicator, Auto Direction Finder, DME and Dual Audio Amplifiers.

Even though the new CitationJet comes with all state-of-the-art equipment, it has a modest price of about \$2.69 million.

This cost is actually lower than the leading turboprop planes that the new jet will compete with.

Lockheed's Pilot Associate used to aid fighter pilots

By Denis Biscobing
 Aeronautics Writer

Lockheed is in the final stage of testing for its Pilot Associate (PA). The PA is an artificial intelligence application program designed to aid the pilot of a single-seat fighter/attack aircraft much like a back-seater would.

By providing navigational tactical and technical assistance, the PA will increase single-seat aircraft combat effectiveness and safety.

The PA consists of five subsystems, all under the control of the Mission Manager.

Operating under its control in the assessment category are the Situation Assessment and System Status subsystems.

Situation Assessment monitors external inputs, such as targets and foes.

System Status monitors data from the engines, avionics and other internal type inputs.

The Mission Manager also controls the Tactics Planner and the mission Planner, for threat-reaction and route planning.

The Pilot-Vehicle Interface subsystem allows PA to tailor itself to the pilot's needs.

The PVI monitors display configurations, performs error checking provides workload control, and adapts itself to provide optimum performance for the pilot at any one time.

All of these systems work together and automatically alert the pilot to threats, offer course suggestions, manage aircraft systems, coordinate multi-aircraft operations, suggest flight options, and compile data from multiple inputs to be offered in a form that is more easily understood by the pilot.

Though all of these tasks are carried out by the computer, the final decisions are left to be made by the pilot using the data presented.

This pre-processing of information helps prevent pilot overload, and informs the pilot what options are available, and which of those options would be most effective, allowing the pilot to obtain optimum performance.

Phase Two of the two-phase development program came to its climax during a five week period in



Photo courtesy of Lockheed

The Pilot Associate is shown here in the final testing, stage with an F-15 pilot. It would be used to aid single seater fighter/attack aircraft in targeting enemy aircraft and targets.

July, when 10 F-15 pilots used the PA in simulated combat missions.

The PA performed as expected—providing early-warning threat information, target tracking, sensor monitoring and route information, while decreasing workload by displaying only pertinent information.

Possible future applications for

the PA are both civilian and military.

Possible future applications for the PA include installation on the A340 Airbus, the F-22 fighter, and the B-1 bomber.

Gulfstream V crews to be trained by FlightSafety

Bonchraft Press Release

DALLAS, Texas — Gulfstream Aerospace Corporation and FlightSafety International (FSI) today agreed in principle that FlightSafety would provide training and advanced Gulfstream V flight simulators in Long Beach, California and Savannah, Georgia.

All Gulfstream pilot training currently takes place at the FSI learning center adjacent to the Gulfstream factory. In addition, FlightSafety will position a Gulfstream IV advanced simulator, currently in production, at the FlightSafety Long Beach Learning Center early in 1993.

FlightSafety International will continue to provide all new and used Gulfstream training for pilots and maintenance technicians.

FlightSafety International is headquartered at New York's LaGuardia airport. The company is the factory authorized pilot and maintenance technician training organization for all Gulfstream aircraft.

Beech announces plans for Starship

Beechcraft Press Release

WICHITA, Kan. — Beech Aircraft Corporation and its parent, Raytheon Company, have announced production and marketing plans for the Starship all-composite business aircraft.

Max Bleck, Beech chairman and chief executive officer, and Raytheon Company president, said that Beech will be producing the Starship through the end of 1994 at its current production rate of one per month.

"As the market heats up, as we expect it to do," Bleck said, "We will make the decisions necessary to continue production into 1995 and beyond."

"We have significantly improved the Starship's performance and passenger comfort to make it even more attractive to customers. We are committed to the Starship program," Bleck said.

Beech recently received certification for the new Starship 2000A, which has a faster cruise speed, a shorter field length, a more comfortable cabin environment, and longer range, Bleck added.

"In addition, we are embarking on a series of marketing initiatives designed to create additional customer appeal," Bleck said.

Included in the marketing and promotional programs are a stepped-up advertising campaign, an

attractive leasing program, and a product demonstration tour this fall.

Twenty Starships have been delivered to operators — 13 sales and seven leases. Customer response from both owners and lessees has been extremely positive, and reliability of the aircraft has been truly outstanding.

"Raytheon and Beech have invested considerable time and significant funds in the Starship program over the past decade," Bleck continued, "and we sense that the payoff is just around the corner."

"The key is to get the airplane into customers' hands because it offers a better combination of large cabin, enhanced comfort, increased speed and advanced avionics than conventional jetprops. Besides, it makes a statement about its owner and the company it is associated with," he added.

"We are convinced that, once an operator uses this aircraft, it will prove to be a tremendous business asset for that customer and its popularity will increase," Bleck said.

The new Starship 2000A can be leased for \$35,950 per month, which includes free maintenance for the first two years or up to 600 flight hours.

The first production Starship 2000A made its public debut at this year's National Business Aircraft Association convention in Dallas last month.

"When customers begin to experi-

ence the new Starship 2000A, which begins its demo tours this month, they will see an improved airplane," said Beech President Jack Braly.

"This will translate into orders, which will be our cue to increase production to meet demand. We are totally committed to the ultimate marketing success of this airplane," he added.

Speed increases are evident in the Starship's high altitude cruise performance, and range from a five-knot increase at 31,000 feet altitude, to a 20-knot increase at 37,000 feet.

Increased fuel capacity gives the 2000A a 7 percent increase in cruise range, from 1,470 nautical miles to 1,575 miles, with a 45-minute reserve.

Payload is increased by 490 pounds, from 1,787 to 2,277 pounds. This results from a 400-pound increase in maximum take-off weight, and a 90-pound weight savings in the Starship 2000A's new six-place interior.

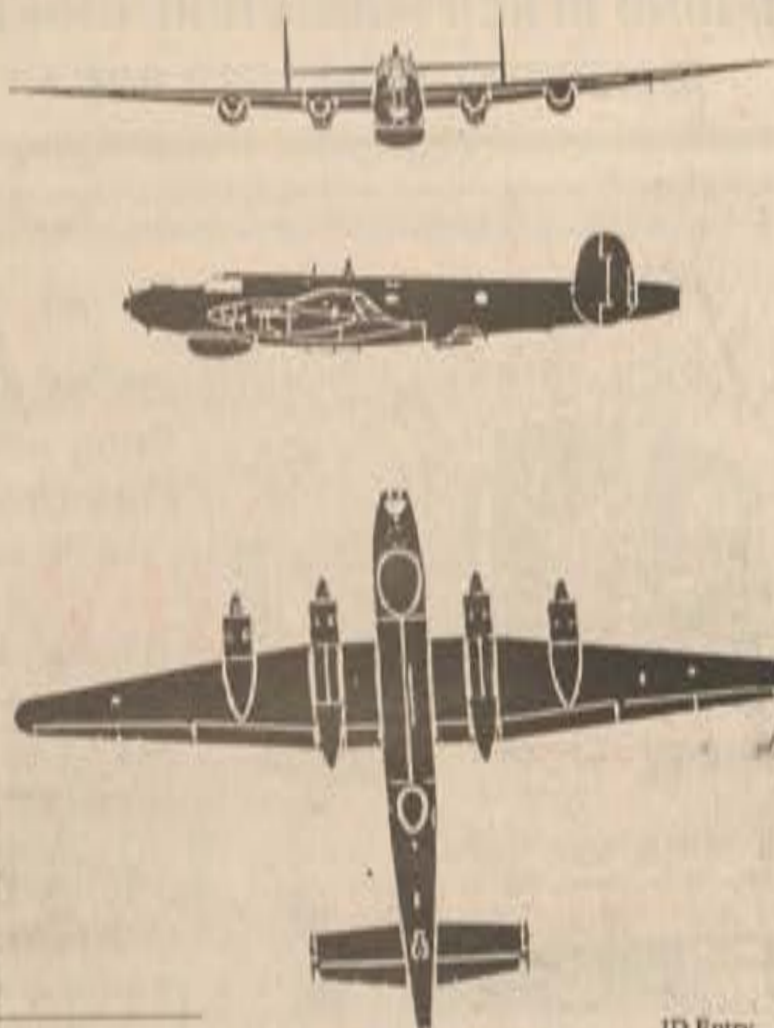
Balanced field runway requirements are also reduced. A fully-loaded

Starship 2000A (14,900 pounds) requires just 3,854 feet of runway to depart from sea level on a standard day.

Beech Aircraft is a unit of Raytheon Company.

It manufactures, markets and services a broad line of piston-powered, jetprop, and jet aircraft for the commercial, military and regional airline markets.

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Columbia prepares for 13th flight



AP/Wide World

By Brian Gamage
Space Technology Reporter

Kennedy Space Center, FL — NASA will attempt another space shuttle launch on October 22, which will bring the number of successful missions this year to seven, with one more remaining, the most ambitious launch schedule since the Challenger accident.

The Space Shuttle Columbia is scheduled to lift off launch pad 39-B on Thursday, October 22 at 11:16 a.m. The launch window extends to 2:21 p.m.

The 51st launch of the Space Transportation System (STS-52) will see the Space Shuttle Columbia carry a crew of six and 11 major payloads into orbit for a planned 9-day, 20-hour and 54-minute mission.

Mission Commander for STS-52 is James Wetherbee, who will make his second flight on Columbia. Mission Pilot is Michael Baker, who is also making his second flight, but his first as a pilot. Mission specialists are Charles Lacy Veach, William Shepherd and Tamara Jernigan, who are all making repeat flights. Steve Maclean is the Payload Specialist and the third Canadian citizen to fly aboard the shuttle.

Columbia will carry a total of 11 payload experiments in its cargo bay. The LAGEOS-II satellite, built by the Italian Space Agency for use in the study of geological science, will be deployed on the second day of the mission. The first LAGEOS satellite was launched in 1976.

The United States Microgravity Payload (USMP-1) makes its debut on STS-52. The payload consists of three experiments in materials science, which will be remotely operated from the ground. This type of remote operations will help prepare the science community for Space Station Freedom prior to its permanently manned operational phase in the early part of the next century.

Experiments on USMP-1 will explore using the unique space environment to do research that is not possible on earth. The science could impact applications on earth in areas such as computer memory, metals and semiconductors.

Canadian payload specialist MacLean will perform 10 separate investigations called CANEX-2.

Results from CANEX-2 have potential applications in machine vision systems for use with robotic equipment in space and in environments such as mines and nuclear reactors.

Other potential applications relate



NASA photo

The STS-52 mission patch depicts a large gold star which symbolizes the American West and the crew's mission on the frontiers of space research. The small maple leaf and the remote manipulator arm demonstrate the joint effort with Canada.

to the manufacturing of goods, new protective spacecraft coatings, and a better understanding of the earth's protective ozone layer.

The development of the Space Vision System (SVS), a machine vision system for robotic devices, such as the Canada arm, was under taken to enhance human vision in

the unfavorable viewing conditions of space. The SVS can provide information on the exact location, orientation and motion of a specified object.

Beyond its possible application as a computerized eye for the space

see Columbia, page B5

The Galaxy Communications satellite to be launched tomorrow aboard an Ariane rocket will provide satellite coverage over the Galapagos Islands.

Arianespace to launch communications satellite

By Arle Moller
Space Technology Reporter

KOUROU, French Guiana — Arianespace is scheduled to launch the Galaxy VII satellite on October 15 from their launch site in Kourou, French Guiana. This will be the Ariane rocket's 54th flight to date.

The launch window is from 9:14 to 10:05 p.m. Kourou time (8:14 to 9:05 p.m. EST). The Galaxy VII satellite, owned by Hughes Communications Incorporated, will be used for television and data transmission over the Galapagos Islands. It will operate in both Ku and C band frequencies. The power output for the Ku band will be 50 W per frequency, and 16 W per frequency for the C band transmission. Deployed, the satellite will span 26.5 m and be 7.5 m wide. Estimated life is around 13.5 years.

The Ariane rocket is the basic work horse of Arianespace, the European Space Agency. The rocket stands 54.5 m high and weighs 323,161 kg, of which 2,968 kg will be the Galaxy VII. This mission requires the Ariane rocket to boost close to its payload design limit of 3,043 kg. Because of this, two solid

strap-on boosters (PAP boosters) will be used in conjunction with the main engines. At liftoff the Ariane rocket will produce 3,946 kN of thrust. Twenty minutes into the flight, the rocket will separate from the satellite. At take off plus two hours, the Galaxy VII will start transmitting data to Jakarta, Indonesia.

For the first time using an Ariane rocket, a maneuver called a perigee velocity augmentation will be attempted. This will occur at take off plus 24 hours, and take off plus 60 hours. The Ariane rocket will deposit the Galaxy VII at an apogee of 27,600 km, and an inclination of seven degrees. On the third and sixth orbit apogee, the satellite's boosters will fire, thereby increasing the orbit to a distance of 35,975 km.

To perform this maneuver, the satellite's boosters will be loaded with an extra 280 kg of propellant. The main advantage in using this method of delivery comes from the fact that the third stage in a normal direct deposit launch becomes dead weight before the apogee is achieved. The perigee velocity augmentation procedure saves fuel and weight. This also adds a year to the orbit life of the craft.

NASA and Russian Space Agency sign treaty



By Ronald Hess
Business Manager

MOSCOW — NASA and the Russian Space Agency (RSA) signed a landmark cooperative agreement last week. On October 6, Under Secretary of State Ambassador Frank Wisner headed

the US delegation that met with Russian Ministry of Foreign Affairs officials to review the US/Russian space relationship.

NASA Administrator Daniel S. Goldin and Yuri N. Koptev, Director-General of the RSA, completed the arrangements during the first annual US/Russian Space Policy Consultations. The agreements focus on the areas of human space flight and Mars exploration. The signing marks the third contract between the US and the disbanded USSR.

In 1962, President John F. Kennedy Premier Nikita Krushchev exchanged letters of interest concerning a combined focus on biomedical and meteorological research in the space indus-

try. The Cold War and the race to the moon diminished the effectiveness of this agreement.

The most significant joint endeavor between the US and the USSR occurred in 1970, when a delegation from the United States met with representatives from the USSR space industry in Moscow. The two groups met to initiate a program for the rendezvous of Soyuz and Apollo spacecraft. In May 1972, President Nixon, on a trip to Moscow, signed an executive order with Premier Kosygin confirming the Apollo-Soyuz Test Project (ASTP) for five years.

On July 15, 1975, Soyuz 19 was launched from Baikonur Cosmodrome, in Kazakhstan. Seven and one half hours later, a Saturn IB launched the Apollo spacecraft from

Cape Canaveral. The two craft, carrying two Soviets and three US astronauts, united for a two day mission on July 17.

Three significant results occurred due to the ASTP. Both countries demonstrated equipment and procedures for space rescue. The mission set a precedence for international inspection and visitation on space stations. ASTP also laid a foundation for US-USSR cooperation on manned missions to the planets.

The Human Space Flight Agreement outlines the details of a Russian cosmonaut flying on the US space shuttle and the flight of a US astronaut on the Russian Mir Space Station. Also included in the

see Cosmonaut, page B5

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New Windows and DOS versions to be released

➔ **Software Review:** Windows NT and MS DOS 6.0 are both to be released by Microsoft.

By Joe Cambron
Data Technology Editor

Two more operating systems will soon be available from Microsoft, the industry leader in computer software. These two new products are Windows NT (new technology) and MS DOS 6.0.

Basics
An operating system, for those who do not know, provides the most basic control functions to a computer system. Most IBM computer users use a form of DOS as their operating system. It comes in three primary "flavors": Microsoft (MS), Digital Research (DR) and IBM. Other IBM computer operating systems include UNIX and OS/2.

Many people think that Microsoft's Windows software is an operating system, but it technically is only a shell. A shell is essentially a place from which programs can be launched. A menuing system, for instance, is a shell. Windows cannot be an operating system because it requires DOS to operate, but this will change with Windows NT.

32 bit operating systems
Most people have 32 bit computers, but very few people take full

advantage of their capabilities. Most software is written in an eight bit or 16 bit format for compatibility reasons. Therefore, very few people are using the inherent capabilities of '386 and '486 based computers.

To explain the loss of performance, it is useful to use the highway metaphor so popular in explaining computers.

Imagine a 32 lane highway leading up to a toll plaza. With eight bit code, eight cars can pay their tolls simultaneously and then the next eight may pay and so on. All 32 cars may sit at the toll booths simultaneously, but there is some delay because the cars are released in cycles of eight. With 16 bit code, the same metaphor applies except that cars are released in groups of sixteen, halving the delay.

With 32 bit code, all thirty-two lanes of cars are released as soon as they pull up to the plaza and pay their tolls. To extend the analogy, the amount of time required to pay the tolls and release the cars is inverse to the megahertz rating of the computer (66 MHz is less delay than 16 MHz).

Coming up the pike
DOS is an eight bit operating system, but it is flexible enough to support 32 bit code in the programs that run under DOS. OS/2 which appears to run DOS faster than DOS does so by implementing a 32 bit version of

DOS. Microsoft's new DOS 6.0 is still an eight bit operating system, but Windows NT is not.

Windows NT is loosely known as "bootable Windows," meaning that it is its own operating system. It is fully 32 bit and is expected to be released in the first quarter of 1993. Windows NT may not catch on, however, for the same reasons OS/2 has not.

Windows NT is a huge program requiring probably more space than the 30 megabytes needed by OS/2. This drawback is added to by the memory requirements of the program which are expected to be at least four megabytes of RAM. Early copies of the program have been distributed on CD-ROMs because the installation files take up so much space.

Worst of all, Windows NT is not expected to be fully compatible with existing Windows software. This may hamstring the program from full acceptance in the consumer world. More than likely, Windows NT will become a high end competitor to OS/2 and will never find its way into most PCs.

Many people think that Microsoft's Windows software is an operating system, but it technically is only a shell.

This probable fact is a shame. A replacement to DOS is sorely needed, but this will not be it. So for the vast majority of people, we have only to look forward to MS DOS 6.0.

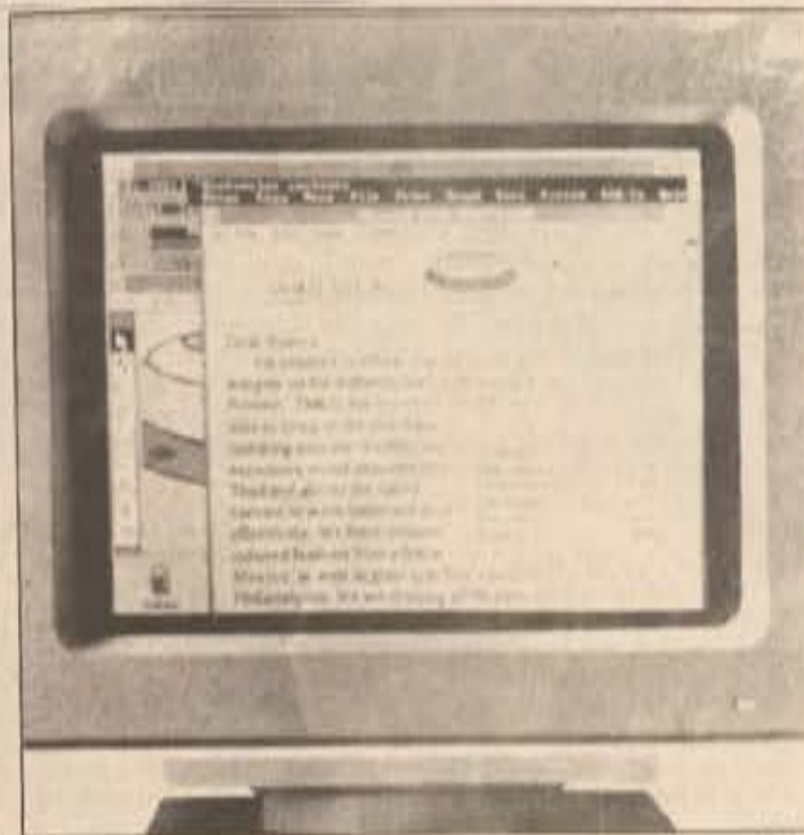
MS DOS 6.0
This new version of DOS is making the test circuit at this point, but its improvements are only incremental so far. Included, for instance, are virus checking, disk compression and improved memory management.

Each of these features only puts MS DOS on a par equal with DR DOS 6.0 which was released slightly after MS DOS 5.0. What is worse is that these add-ons are no more efficient than the separate packages which provide these added features.

They are, in fact, licensed copies of existing software from companies like Quarterdeck, Stac Technologies, and McAfee.

Companies like Stac, which make the compression package *Stacker*, does not want MS DOS 6.0 to knock its own products off the market, so it licenses an older and less efficient technology than what it currently uses in its compression software.

The bottom line is that the average user would be better off buying separate memory management, disk compression software and the shareware version of McAfee's *Scan* software. The only penalty is cost. It is always cheaper to buy an integrat-



A new Windows operating systems is headed for the IBM world. It uses a Graphic User Interface similar to the old Windows interface.

ed package like DOS, although there is a performance penalty.

All in all
Realistically neither of these packages look like a winner for the average user at this point. Both packages may add features before their release, but Windows NT is hopelessly oversized for the consumer market.

Another version of Windows (4.0) which will also remove DOS from the mix is due next year. It is intended to be used on the average PC owners' PC instead of commercially.

This product should be even more eagerly awaited judging from these two products.

Managing your files is definitely easiest with XTree Gold 2.5 for DOS

➔ **Software Review:** XTree Gold 2.5 and XTree for Windows are available for IBM compatibles.

By Joe Cambron
Data Technology Editor

File management is one of the most important activities a computer owner undertakes. Keeping track of the maze of directories and files on today's voluminous hard drives is a monumental task.

Good file management software can act like a road map that allows the owner to navigate through his/her files like a ship in a minefield.

DOS programs

Easily the best software for managing your files is XTree Gold 2.5. This program represents the file structure as a tree, with the limbs as individual directories.

Although this is now a common metaphor for the directory structure, XTree does it best for several reasons.

First, the entire tree is shown instead of just a few main limbs.

Second, the program's speed is

Although this is now a common metaphor for the directory structure, XTree does it best for several reasons.

impressive, only the logging of new drives creates any delay (this can be eliminated with drive caching).

Third, it supports the viewing of all manner of file types. This includes images, spreadsheet files and word processor files.

One of XTree's newest, but most welcome, additions is the inclusion of file compression capability using multiple file formats.

Perhaps, XTree's only weakness is its inability to update automatically when the program's shell feature is used. This means that the file information does not change when DOS is accessed from within XTree.

Windows Programs

Of course, Windows has a file manager built-in, but its features are

so limited that it has been on the receiving end of more criticism than perhaps any other program. For all the reasons that XTree Gold 2.5 hits a homerun, the Windows' file manager fouls out.

It is easy to become buried in redundant windows showing old information. It is not as customizable as XTree, but yet the options list is so complex that it may easily lead to confusion.

Automatic updating is unheard of when almost any action is taken. Instead, another in an endless series of windows is opened on top of all the previous windows.

XTree for Windows

Surprisingly, XTree for Windows only embodies some of the features

that made its DOS incarnation so useful.

Like other Windows programs, XTree is much slower than its DOS cousin. In addition, it uses a system of expandable branches similarly to the Windows' file manager.

Unable to view all the branches without great difficulty and hamstrung by its slow speed, this version falls short of the DOS version. The best option may be to run XTree Gold 2.5 from a DOS window as if it

File management from within Windows may be difficult for quite a while to come because of slow system calls.

were a Windows program.

Sadly, file management from within Windows may be difficult for quite a while to come because of the time involved in using system calls that provide file information. Windows needs another upgrade of the magnitude Windows 3.0 embodied in order to provide adequate file management.

Strangely, the increased resolution available in Windows could be tapped to provide an even more complete directory tree than XTree Gold 2.5 does, but this has been botched as well.

Windows file management has a lot of room for improvement. For now, XTree Gold 2.5 is the best package even with its small handful of shortcomings.



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Telsa and Firehouse make road trip worthy

By Douglas O. Fischer
Diversions Writer

Epic recording artists Firehouse and Geffen recording artists Telsa are winding up their tour of the US. One of their last stops was at the Jacksonville coliseum on October 4th.

Since every once in a while a road trip is necessary to preserve one's sanity, a concert road trip was in order.

After a few pit stops along I-95, where legs were stretched, beverages sought and pictures took we made it to Jacksonville. Once at the coliseum we headed to the box office to claim our tickets. With only a minor difficulty gaining entrance we promptly sat in seats that had a good view of the stage, front row of course.

The lights dimmed and Firehouse hit the stage and started the evening of with "Bye-Bye Baby, Bye-Bye." The crowd started yell their approval of the song.

Comprised of C.J. Snare on vocals, Bill Leverty on guitar, Perry Richardson on bass, and Michael Foster on drums, Firehouse is a band that plays music to entertain the

audience. Their music is very enjoyable, it's the kind of rock 'n' roll one can sit back, sing along and relax.

Singing along is exactly what the crowd was doing. During the performance of "Love of a Lifetime," the crowd swayed back and forth as one. "Don't Treat Me Bad," and that current top ten at ten song "When I Look Into Your Eyes," were also played.

The audiences applause was good enough to entice Firehouse to play one more. For their encore performance Firehouse played "Reach for the Sky," where the wild crowd did exactly that.

At the song's end the house lights came on signaling the end of an excellent live performance, a performance that was a concert within a concert, not a lame opening act.

After a good performance a crowd of people always wants more, and on this night more was to come.

It only took the road crews 15 minutes to get things ready for Telsa who started the show off with "Comin' Atcha Live." Quite an appropriate song to start a show off.

Telsa is Jeff Keith on vocals, Frank Hannon on guitar, Tommy

Skeoch on guitar, Brian Wheat on bass, and Troy Luccketta on drums.

After a few more songs, which included "Change in the Weather," Telsa changed the pace of the show by setting up chairs and doing some acoustical guitar pieces from their Five Man Acoustical Jam album. "Sings," was a real crowd pleasing sing along song.

Telsa got things back up to speed by playing "Call it What You Want," and a few more fast rockers.

When they finished playing the last song Jeff spoke to the crowd, "Well people, here's the deal. Do you want to hear one more? I mean we're Telsa and we're not going to hide behind the amplifiers, either you want to hear one more or you don't. Well Jacksonville!"

With that the crowd went wild and Jeff said, "OK, you got it."

Telsa for their encore performance wailed through "Edison's Medicine," which had an extra long lead part to it that scorched the crowd.

As all good thing must end sometime, so did the show. Firehouse and Telsa teamed together to put on a show worthy of a road trip.



Jeff Keith of Telsa and C.J. Snare of Firehouse belt out their trademark vocals.

Clarke's Corner

Hero has happy holistic happenings

By George Clarke
Diversions Movie Critic

The rain made last week a living hell. Walking from the parking lot to the academic buildings turned my clothes into stinking sink sponges, which promptly froze solid while I sat around for fifty minutes at a time under A109's industrial-strength air conditioners. And to top it off, diving practice was canceled.

Darn. That's the only reason why I check my mail at five-thirty in the afternoon—high school diving practice. So I was forced to concentrate on school, and by the time the weekend rolled around, what better catharsis was there? Yes! Why not see a movie about a plane crash!

Dustin Hoffman stars in this one, a Stephen Frears flick aptly titled *Hero*. The movie is about a lot of things, but the action concerns one Bernie Laplante (Hoffman), a down-and-out small time crook who has no life and no self esteem. Laplante does have one bright spot in his life—a son who idolizes him. Unfortunately, Laplante also has an ex who hates him—but who has custody of his son.

Fate has its way with Laplante when it sends a jetliner his way. The plane falls out of the sky and deposits itself at his feet, draping

across the bridge like a pile of Schlitz cans. An unlikely hero is created: in that foggy moment during disaster—when even cowards become saviors—Laplante (literally) strolls up to the plane, climbs inside, and single-handedly saves everyone. He even helps out Gale Gayley (Geena Davis), a popular TV reporter. But not even Laplante can sprout wings immediately—he snatches her purse during the rescue. He then disappears into the darkness.

And so Gayley launches a campaign to find this mysterious altruist. Her station offers a one million dollar reward to the guy if he comes forward. Of course, everyone in the city shows up—but it is John Bubber (Andy Garcia), a bum who had the fortune of briefly talking to Laplante after the accident, who has the most convincing story. And he tells it to Gayley before Laplante gets a chance to tell his. Now Laplante is jealous—he vows revenge and sets out to right this wrong.

There's some good performances on hand in *Hero*. Dustin Hoffman delivers a fine rendition of a down-and-out heartless bum who isn't quite so bad.

Andy Garcia delivers a fine performance as a down-and-out bum, too—although his is a bum with

heart. Geena Davis is pretty believable as the professional but (satirically) sappy reporter. And don't overlook two of John Cusack's relatives (how many more are there?) as a lawyer and Laplante's evil ex. Keep an eye out for cameos by Chevy Chase and the guy who hosts A&E's *Our Century* (Didn't think I watched educational stuff, did you?).

Screenwriter David Webb Peoples crafts a pretty good film with *Hero*; it's full of irony and satire and all that other stuff you learn about in HU 122 (but unfortunately forget). The movie is an indictment of lots of things, including media exploitation, our sometimes hypocritical attitudes toward people less well-off than ourselves, and our occasional lack of self-honesty. And it's a sometimes deep portrayal of what we can be if we try.

With that in mind, it's probably not far for a Riddle student. It's not too terribly funny and, in fact, it's downright turtle-paced. Even I admit that a slam-bang shoot 'em up is preferable to those cerebral movies sometimes.

You may want to check out something else. But if your in the mood for a sharp, savvy, and sometimes pretty philosophical flick, *Hero* is for you. I like it.

Well, I'm off to check my mail.

Nine Inch Nails hammers out Broken album and bonus mini

By Michael Paredes
Diversions Writer

"Dance music that's a little harder," is how Nine Inch Nails frontman Trent Reznor has described his form of "industrial" music. His new album, *Broken* may come as a bit of a surprise to fans of 1989's *Pretty Hate Machine*, which was dominated by clever synthesizers and drum machines. There were a few exceptions, such as the angry-man's anthem, "Head Like a Hole," which is a bit guitar oriented.

After *Pretty Hate Machine*, Reznor hired a band and signed on as one of the Lollapalooza acts for 1991's inaugural tour. To the surprise of their record company, Nine Inch Nails blew the audience away on the tour, outshining such acts as Siouxsie and the Banshees, Butthole Surfers and maybe even Jane's Addiction on a few dates.

The band managed to take in all of the intelligent synth riffs from the CD and, in a cruel blow to live Depeche Mode, crank it out with harsh guitar and heavy bass. The sound was nothing short of phenomenal. Reznor discovered he sounded best when he was ticked off and screaming about the blackness of his soul that summer. Lucky for us.

Broken continues in this direction, heavily inspired by Reznor's hired band and the Lollapalooza tour of '91. The torturous "Pinion" opens

the album with classically industrial, repetitive synth riffs, building in volume and intensity to a sole electric guitar chord.

This one-minute intro immediately leads into "Wish," an excellent tune introduced at the Lollapalooza tour. Featuring real drums(!), this song yells "Play me loud!!!" The guitars on this one come about as close to sounding like live electric wires as you can possibly get. The lyrics are classic Trent Reznor, along the lines of, "I'm the one without a soul, I'm the one with this big f***ing hole!" and "Don't think you're having all the fun, you know me, I hate everyone!"

The third tune, "Last," is similar to a few songs on Ministry's new album—Metallica-like guitars with a lot of cool-sounding bass synthesizer reminiscent of "Head Like a Hole." The chorus featuring Reznor's low-volume "come, come, come on" and the louder "this isn't meant to last...this is for right now," with three beat-per-second drum programming evokes the image of a massive crowd of kids with eyes closed, heads bobbing. (In fact, when you listen to this tune, close your eyes and bob your head - it feels good.)

"Happiness In Slavery" is hands-down the most ear-pleasing of all the songs. Opening with a eustachian tube-piercing "Slave Screams," apocalyptic reverbs and Al

Jourgensen-esque processed vocals, the song abruptly transforms into a very, very danceable, synthesizer-overlaid masterpiece. The song is a rich display of Reznor's maturity in fusing brutal industrial-strength lyrics with highly polished, meticulously arranged keyboards and effects.

Although the CD appears to be only six songs long, a mini-CD is included in the eco-package with two additional songs (interestingly enough, both covers). The first, "Physical," is an Adam Ant cover performed on tour in '91.

Reznor clearly sounds into this song, as revealed at the end where he barely manages to contain himself as he angrily grits through his teeth, "You're...Just...You...Physical." The second tune is a cover of a Pigface song and to the glee of *Pretty Hate Machine* fans, has the most roots planted from that recording.

As you might be able to tell, I love this album. Since Nine Inch Nails' first and only album came out over three years ago, Reznor's true fans have had a time to mature and grow, musically and otherwise. *Broken* leaves some of these fans behind, but only a few.

The real ones won't be mad that the album is only six songs long. They'll just be happy Trent Reznor is still ticked off and having a ball singing about it.

The legacy of Bing Crosby in perspective fifteen years after his death

By Dr. J. Roger Osterholm
Avion Advisor

Bing Crosby was born in Tacoma, Wash., on May 3, 1903, and died Oct. 14, 1977, on a golf course near Madrid from a massive heart attack after winning the game. His death occurred exactly 15 years ago.

Named Harry Lillis Crosby, he always thought he was born on May 2, 1904. He grew up in Spokane, Wash., gained his famous nickname,

and left for Los Angeles in the fall of 1925. Then a major story in America's popular culture began.

Bing Crosby became a professional entertainer in 1926 paired with Al Rinker, a younger boy from Spokane, and became noted as the lead in the trio called the Rhythm Boys, formed by jazz king Paul Whiteman when he added Harry Barris to Bing and Rinker.

When Bing left the trio and went into radio on CBS in New York

opening Sept. 2, 1931, there was no looking back.

He married Dixie Lee in 1930 and had four sons by her: Gary, twins Philip and Dennis, and Lindsay. But wasn't Bing really cruel? Never mind that everyone knows he was gentle with his later children by Kathryn: Harry III, Mary Frances, and Nathaniel Patrick. Dixie died in 1952, and he married Kathryn in 1957.

Al Rinker invented the nasty Crosby. Back in the 1940s Bing paid the bills of singer Mildred Bailey, who was seriously ill. Mildred was the older sister of Al Rinker and was the first to advance their musical careers. Bing moved her to Santa Monica, Calif., for treatments that saved her life.

Rinker met Donald Shepherd and Robert Slatzer in February 1980, who told him of Bing's help. He had been unaware of Bing's anonymous charity but said that Bing had not really helped her but took her jewelry and her house, Rinker charged, in return for paying her "modest" bills.

This meeting inspired Shepherd and Slatzer to elicit as much hostile material as they could and published *Bing Crosby: The Hollow Man* in 1981. This is the book that began the popular myth that Bing was heartless and coniving. For all their negativity, however, they offered no hint that Bing was physically brutal.

In 1983 Gary published *Going My Own Way*, his autobiography that furnishes ambiguous material that could make Bing seem cruel. Gary's publisher insisted on more tales on his father than he had intended to include. A close reading, however, reveals that most of the "cruelty"



Bob Hope and Bing Crosby, during a 1940's radio broadcast.



David Bowie in 1977 with Bing Crosby during the taping of Bing's last Christmas special.

was in Gary's perceptions and fears. Bing did severely spank Gary, even more than he did his other sons, but Gary was, by his own admission, virtually incorrigible. Showing no emotion, Bing would hit him with a studded belt and later a cane, sometimes until he drew blood, until Gary reached 17.

Gary was angry at being confined by his parents, but as early as 1934 there were serious kidnap threats against Gary, born 1933. Bruno Hauptmann, the kidnapper of the Lindbergh baby in March 1932, was captured in September 1934 as kidnapping threats became common.

Gary was also angry that his par-

ents were confusing and terrifying, but he himself tells the story that his mother, without warning or cause, viciously attacked the boys one night, and Bing saved them from her. Bing would not explain the incident to them.

Bing could not easily display affection and he was sometimes insensitive, as he has admitted, but such traits, though not admirable today, are not cruel. They were traits that defined a "man" of the generation growing up around 1920.

Bing Crosby, with admitted deficiencies as a father in the 1940s and 1950s, had four troubled sons whom he continued to try to save even

through the 1960s. Ironically, Gary was the one who succeeded most in the coming years. Lindsay tragically committed suicide at age 51 the end of 1989; Dennis, at age 57, shot himself in 1991; and Philip, whom Gary detests, seems to subsist in alcoholism.

Bob Crosby, Bing's younger brother, explained that Bing "was a disciplinarian," but their "mother and father were like that. We were brought up that way." Phil Harris stated that he never saw Bing beat the boys and that someone who was

Calvin and Hobbes

by Bill Waterson

Far Side

by Gary Larson



Years later, Harold Zimmerman, the original "Hookhand" of campfire ghost stories, tells his grandchildren the Tale of the Two Evil Teen-agers.

Early corages



"Tell it again, Gramp! The one about being caught in the shark frenzy off the Great Barrier Reef!"

Historical note: For many years, until they became truly nasty, Vikings would plunder, loot and then egg the houses of coastal villagers.



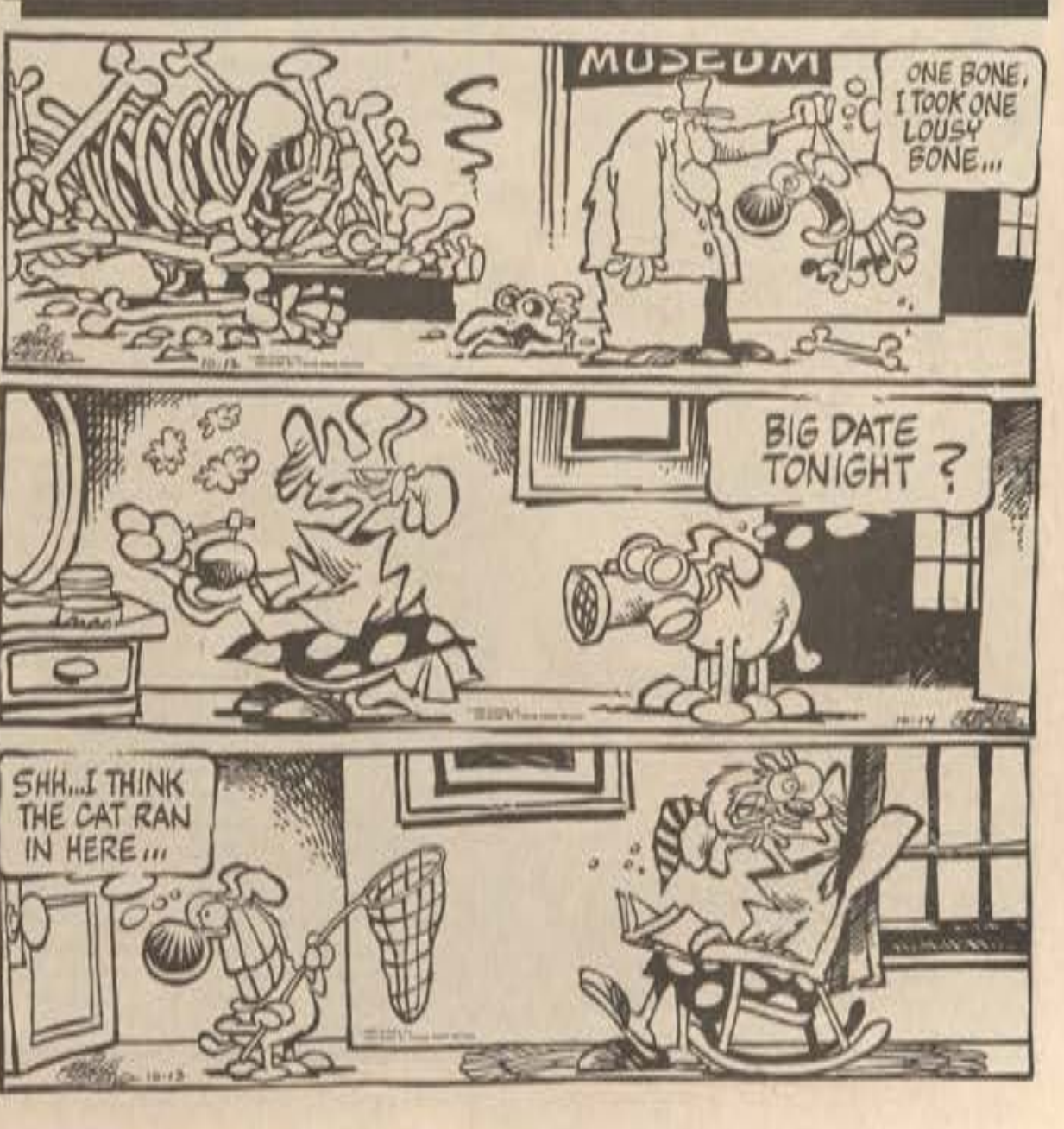
"Fools! They made me into a free-range chicken ... and man, I never looked back."

Explorers from another cartoon are captured and tortured by the savage Farsidians.



Outland by Berkeley Breathed

Mother Goose and Grim by Mike Peters



Army R.O.T.C

By Jon Jackson
Member

This semester is off to an extremely positive start for the Eagle battalion. The Ranger Challenger team, which is commanded by Steve Charnon, captured first place in a competition involving Embry-Riddle, Florida State, and University of Central Florida. On the way to their victory, they placed first in both the physical fitness test and the rope bridge. Cadet Scott Barton won the two mile run portion with a time of 11:57.

The MS I's and II's successfully earned their rappelling ribbons and certificates under the supervision of select MS IV's. Each cadet demonstrated poise and confidence during their three rapels. Cadets also under-

went an exciting grenada assault course and learned individual movements techniques.

The MS III's completed their training at Camp Blanding last weekend in a very positive manner. They participated in such activities as weapons training, individual movement training, and tactics. All of this training will be very helpful for their upcoming summer Advanced camp at Fort Bragg, N.C. Remember MS III's: "You will never bypass your predecessors by following in their footsteps".

On the final note, the Army is still looking for qualified leaders. Don't let unfounded rumors of cutbacks spoil your chance at one of the greatest careers America has to offer. Contact Capt. Iddins at Army R.O.T.C. for scholarship and career opportunities.

Senior Class Council

Special to The Avion

and Joe Whalen as Senior Class Treasurer.

Included in the 1992 Senior Class Council Committee are Joe Tortora, Dave DePosse, Rob Brown and James Ruocco as chairmen and Michelle Webb and Ann Marie Kopcienski as chairwomen.

They will be articulating the details required to make this year's graduation unlike any other. Congratulations to all the elected officers!

WPB

By Stephanie Perkins
Member

The women's Programming Board is off to a great start this semester; the turn out for the Women's Reception on August 24, was very impressive.

I would like to thank everyone who attended and took part in the reception. WPB has several events planned for the upcoming months, such as a car wash, sleepover, shop-

ping trip, horseback riding, and several other events.

On Monday October 19th at 7:00 p.m. in Spruance Hall Atrium a reception for all those who participated in the Big/Little Sister Program this past summer.

Our meetings are held on Thursdays at 1:30 p.m. in the library in room 157C; all are welcome. If you have any questions, you can contact Stephanie Perkins Box # 8543. We hope to see you there.

Naval Aviation Club

Special to The Avion

The Naval Aviation Club Fall '92 Semester got off to a great start with the opening meeting on Wednesday, 16 September.

Congratulations to Chris Hymer, who was voted President, and Eric Heinzer, Vice-President in the opening elections. Four more club members got a chance to go to NAS Cecil Field for the F/A-18 simulator.

More sim time is expected in the future, thanks to the tireless efforts

of Captain Byington, the club's faculty advisor.

Congratulations also go out to the Tailhookers flag football team who won the first game of the season on Sunday, 27 September. The offense, led by quarterback Alex Shoaf, who managed to score two touchdowns in the 12-6 victory, along with outstanding defensive efforts by Chris Hymer and Sieve Huffaker.

Welcome to all the freshman club members who attended the first meeting. We are sure that you will get a lot out of it. And as always, Fly Navy!

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) 226-6049.

AHP

By Jason Piper
Member

Well, another busy week has come to an end. The pledges are doing well in their lessons for the most part. Greek Week has been a good time so far.

Joel did a good job in the flour bowl. We won the first round of volleyball against Sigma Pi two games to none, the scores were 16-14 and 15-11 respectively.

Our next match is against Theta Phi Alpha. We also won our tug-of-war match against Lambda Chi Alpha.

We won another football game on Sunday against Team 23. Both

the offense and the defense played very well.

The Rho offense struck first, the extra point attempt failed though. Team 23 got on the boards shortly after, their extra point attempt was successful. In the second half Rho pulled out in front and stayed there. The Rho offense was helped out by a few key interceptions at critical points in the game. The final score was 19 to 8. Everyone put in a great effort, and it paid off. Let's keep it up.

Pledges keep getting your interviews done, study your lessons hard. The end of the semester is nearer than you realize. You'll look back on this semester as the best time of your life. I promise it.

CFC

Special to The Avion

This semester, the Christian Fellowship Club (CFC) is planning many special events. We have concerts, ice skating, beach parties, and awesome guest speakers.

Come join us to have fun singing praises to our Lord. Prayers are given freely with open hearts, and everyone is welcome.

CFC is a non-denominational Christian group for students. So, if you are looking for new Christian

friends or just sick of studying, please join us every Saturday at 6:30 p.m. in the Student Center Conference Room in the Student Center across from the information Desk.

Even if you haven't gone to any of our weekly meetings, you still have a chance to join in on the fun and fellowship. CFC is completely different from other clubs. There are no membership dues or special requirements. You may join at anytime. Our doors are always open and friends are always available.

Surf Club

By JR Brotherton
Club Secretary

October 18 is our weekend out! This Sunday, the Stormriders will face off with some of the local schools in the Scholastic Surfing Association. The men's team this time is:

Lee Major Will Stirna
Sean Martin Von Steinrietz
Rob Ely Craig Tovatt

Our woman surfer is Erin Martin and our bodyboarder is Robbie Ottesen.

On Sunday, October 4, the waves turned from slop during the previous few days, to almost perfect by the time the inner-club contest began. Strong on-shore winds produced the Tropical Storm Earl, brought a lot of energy into our area. Then, as the wind shifted to out of the south-east south east, the wave energy was cleaned up and hollowed out, which gave us awesome contest conditions.

I am happy to announce that Jake Krauklis, who fell victim to a shark attack late last month, still has a foot and is doing fine.

Remember, this weekend is our first contest and we've got some pretty hot riders competing. Rob Ely was pulling through barrels last Sunday like he had been surfing the North Shore since birth. Von Steinmetz, from the Outer Banks of

North Carolina, took some of the longest rides of the day, pulling floaters now and then, and catching air, giving one of the best performance overall. Sean Martin of Jacksonville Beach, Florida showed his stuff on a new

6'4" stick when he dropped in on an outside swell and slipped into the barrel. He rode for a couple of seconds, pulled through the lip, and did a picture-perfect floater before reaching the inside break. Will Stirna took advantage of the semi-glassy conditions. During the final heat when he dropped in the tube of a five foot swell (that's huge for Florida) and rode in the barrel for about 25 yards before his classic right closed out, but he wasn't finished. He did a bottom turn, caught air, and shredded the wave to the inside break, which ended the heat.

This is just a small description of the high performance maneuvers from the many surfers we have in the school. If you want to see the action for yourself, come to the meeting on Wednesdays at 7 pm in room B506 (or check the board, located opposite and to the left of the SGA office to see if we are meeting somewhere else). We will have more events coming up in the very near future and our own surfing video by the beginning of Spring 1993.

Columbia

(continued from page B2)

shuttle, a system derived from the Space Vision System may be used to help construct and maintain the space station, guide small, remotely-operated space vehicles for satellite retrieval and servicing, or lead to improvements in the manufacturing of products such as automobiles or electronic equipment.

A commercial protein crystal growth facility will fly on STS-52. Scientists hope the new facility will result in more crystals that are better ordered, larger and more uniform in size than their ground-based counterparts.

Near-perfect protein crystals are needed in the manufacture of some life-saving modern medicines for the treatments of such diseases as cancer and AIDS.

With three other vehicles at various processing stages, the Kennedy Space Center's (KSC) shuttle team began work on July 10, the day after its unscheduled landing at KSC, to ready Columbia for its 13th voyage into space.

A standard 43-hour launch countdown is scheduled to begin three days prior to launch. During the countdown, the orbiter's fuel cell storage tanks and all orbiter systems will be prepared for flight.

About nine hours before launch, the external tank will be filled with its flight load a half million gallons of liquid oxygen and liquid hydrogen propellants. About two and one-half hours before liftoff, the flight crew will begin taking their assigned seats in the crew cabin.

Columbia is scheduled to land at KSC on November 1 at 7:02 a.m. EST.

Cosmonaut

(continued from page B2)

agreement was a joint mission involving the rendezvous and docking of the space shuttle with the Mir Space Station. NASA Administrator Daniel S. Goldin has approved the selection of cosmonauts Sergei K. Krikalev and Colonel Vladimir G. Titov as the two Russian candidates who will train to fly on the STS-60 mission scheduled for launch in November 1993.

Colonel Titov, of the Soviet Air Force, joined the cosmonaut team in 1976. He has flown numerous Soyuz missions. Most notably were his missions on Soyuz T-10 on September 27, 1983, and Soyuz TM-4 on December 21, 1987. T-10 caught fire one minute after launch, destroying the rocket and necessitating the use of the launch escape system.

TM-4 set a new record for the longest duration in space. The trip lasted 365 days, 22 hours and 89 minutes. Upon return, Titov was awarded the title of Hero of the Soviet Union and received his second Order of Lenin. Titov was also awarded the US Harmon Prize, becoming the first Soviet citizen to win the awarded.

Krikalev is an aerospace engineer. He began his cosmonaut training in November 1985. His first space flight was as a flight engineer onboard Soyuz TM-7. Krikalev spent his second flight aboard Mir, from May 18, 1991, to March 25, 1992. Krikalev also received the title of Hero of the Soviet Union, and was awarded the Order of Lenin.

The cosmonauts are scheduled for arrival at NASA's Johnson Space

Center, Houston, later this month. One cosmonaut will be designated the prime crewmember, while the other cosmonaut is designated the backup crewmember. Both cosmonauts will undergo mission specialist training on shuttle systems, flight operations and manifested payload procedures.

Two selected NASA astronauts will receive cosmonaut training at "Star City", the Yuri Gagarin Cosmonaut Training Facility, outside of Moscow. Their training will begin no later than 12 months prior to the agreed flight date. The astronauts will be designated prime and backup crewmembers.

A NASA astronaut will fly on a long duration Mir Space Station flight. The flight's timing will coincide with a shuttle docking flight in 1995. A Soyuz spacecraft will ferry the astronaut to the Mir station. The astronaut's duties will focus on science, particularly life sciences, as well as engineering and operational objectives.

NASA will transport two cosmonauts in the space shuttle to replace the two cosmonauts on Mir. While the shuttle is docked to Mir, the astronaut and two cosmonauts will conduct life science experiment. The astronaut and cosmonauts will return to the United States for continued post-flight life sciences experiments.

The other signed agreement will allow NASA to participate in the Russian 1994 Mars mission. This agreement may allow US scientific instruments to be carried aboard Russian spacecraft. The cooperation could significantly enhance the present Mars mission and provide critical data for future human and robotic Mars missions.

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Roommates I

Roommate wanted for Spring '93. Must be reasonably clean and neat. Rent \$160/month plus 1/3 utilities (approx. \$40) 2 1/2 miles from campus. Leave message in box B215.

Roommate needed - 2 bedroom, 2 1/2 bath, 2 story townhouse. Washer and dryer and all other appliances. \$275/month and 1/2 utilities. Call Scott at 258-9556.

Room for rent in Daytona. House with three bedrooms. You pay 1/4 of gas, electric, phone, rent is \$150 a month. Nice, big house. Contact Jon at 248-1870.

Townhouse for sale - Only 2 miles from IRAU, 1 mile from I-4 and shopping. Two levels. Also includes water, trash removal, pool, and cable. Assumable mortgage. Approx. \$350 per month. For further information, please call 788-4343.

Misc. for sale

Single bed, like new, \$50 o.b.o. Desk, with side and front drawers, in fair condition, \$20 o.b.o. Large square end-table, in good condition \$15 o.b.o. More stuff. Call Mary at 788-0751.

For sale: Queen size frame, mattress, and box spring b.o. Amiga 2000 w/ bridgeboard & lots of software. Paid \$3,000 and will sell for \$1,500. Leave message for Kory at 676-1115.

Twin mattress and boxspring for sale! Still in original bags, never used. A steal at \$100. Call after 5:30 274-4225 Tracy.

For sale: Gray three piece sectional couch with reclining ends. Excellent condition. Clean, comfortable. \$1,200 new. Will sell for \$500. 258-2258.

Full Out Bed/Couch \$100 negotiable. Brown in color. MUST SEE! Leave Message 238-9355.

For sale: Commodore 64c computer. Two 5.25 inch disk drives, 1200 baud modem, joystick, plenty of software. DUAT ready. \$50, also Panasonic printer, \$50. Call 258-9004.

For sale: IBM PC convertible (portable). 912K, two 3.5 inch disk drives, print adapter, AC adapter, and battery pack. Comes with software. \$400 o.b.o. Contact Steve ext. 6689 or 673-1607 after 6 p.m.

Queen size waterbed for sale, includes sheet, pillow cases, padded frame, and built-in drawers. All for \$100 o.b.o. Call Mike at 788-1214.

Apple Iigs Limited Edition. Excellent condition with 3.5 and 5.25 drives. Color RGB monitor and Imagerwriter II printer, high speed memory expansion card. Asking \$1,000 o.b.o. Call Eric 254-2835 or box 5542.

For sale: Gibson Epiphone bass w/ case and wah pedal - \$150 o.b.o. Short sword w/ sheath - \$35. Meteorology book - \$15 o.b.o. Oral interpretation book - \$10. Hard rock CD's and tapes - \$5 - \$10 each. Call Pete at 248-2962 and leave message.

For Rent: Studio Apartment on river. \$280/mo. includes utilities. \$250 dep. 253-2513

Car audio, Coatic 3809 amp (100 max.), Coatic 120 amp (65 max.), Coatic X-M3 elec crossover (3-way), Pioneer tweeters (80 peak), 3/4" ply box for 2 12" subs (expres). Best offers. Tel 323-1494.

Sony CD Discman, top of the line. All features body armor, remote, can be used in car or on stereo. \$200 o.b.o. Mike 257-1751.

Hard rock CD's left to me by roommate who joined the army. I get 1.3 the money I make from the sales. Best offer. Call 248-2962 ask for pete or leave message.

Ruko Armskor AK-47 / 22LR semi-automatic assault rifle. Great for target shooting. Only 2 months old, \$200 o.b.o. Mike 257-1751

Used flying books for sale - All kinds - Basic flight training, instrument and commercial manuals, aviation flight guides, operators manuals, priced \$4 - \$10. Flight computers for sale: Sporty's electronic 16-B Computer \$40. 255-0785.

For sale: 7 ft. Burmese python \$250 o.b.o. 4 ft. female Iguana \$ 250 o.b.o. Please call at 255-7137 if not at home leave message.

Car audio equipment for sale. 15" Cerwin Vega woofer with out enclosure 16" x 34", \$100. Acoustic XM portable electronic crossover \$80. Soundstream D200 car audio amplifier 24 OW \$200. Denon DCA-3400 car audio amplifier 4 x 40 watts \$150. Boston Acoustics BA-6700 plate speakers \$100. Denon DCC-8970 CD player Am/Fm \$275. KIP car 200 SW 8" woofers with enclosure pair \$150. Call King Pickon at 252-3701 ext. 133.

Ormond Beach Aviation Inc. The Flight Center is accepting resumes for CFI and mechanic positions in writing only to the following address: Ormond Beach Aviation Inc. Unit 7 770 Airport Rd. Ormond Beach, FL 32174.

Looking for a top fraternity, sorority or student organization that would like to make \$300-\$1500 for a one week marketing project right on campus. Must be organized and hard working. Call 800-592-2121 ext. 308.

Miscellaneous

Dive Bimini Oct. 30 - Nov. 1. Includes: roundtrip air from Ft. Lauderdale, 2 nights at the South Bimini Yacht Club, breakfast and lunch daily, 8 dives with Scuba Bimini, use of tanks, weights and belts, hotel transfers on Bimini. All for \$329. Call Atlantic Scuba for info. 253-7558.

Quality flight training. Get your Private or Commercial certificate or your instrument rating. Learn to fly the right way. Call David at 760-4801.

Attention ladies: full set of sculptured nails for only \$30! Ask for Sherry at Majestic Nails at 756-2220. Offer expires Nov. 6, 1992.

The Rotaract Club: Meeting every Tuesday at 7:30 p.m. in room 5613. Meet new people, build up leadership, community services. Establish important business contacts. Come on enjoy the fun! New members are always welcome.

Professional flight instruction, learn from an experienced CFI with over 1,100 hours. Aircraft rental starts \$44 per hr. Call David at 756-5760. Remember, you get what you pay for.

So, you can fly an airplane. Well, now is the time to take the next step! Learn how to fly a helicopter and experience what flying is really about! Call David at 756-5760 and book an introductory flight today!

Flight instruction in Daytona Beach. Lowest rates in town. 39hr for C-152. Includes gas and instruction. Get your private, commercial, instrument, CFI, Call Manny (407) 574-1645.

Air Brushing! Way low prices! Carr, bikes, clothing, etc. Contact Mark at 258-6647.

Personals

My family and I wish to extend a sincere heartfelt thank you to everyone who's prayers and thoughts were with us during this difficult time. Please know you are an extension of my family. Laurie Ranfas

Dear recipient of beautiful rose and letter, alas that you are spoken for, but know that divinity and gallantry are not dead! The AWA is still quite apparent! (ODAS, ODAS, TASHUR, ODAS.) J.M.

To the blonde girl that always wears short skirts and smokes, you are very attractive and I'm interested. Please reply in the Avion. Sincerely, The Rocket Launcher.

If you can't be with the one you love, love the one you are with. Beta Alpha.

VIRGINIA Don't be bothered by your being so stupid, immature, self-centered and ugly. After all, you do fit the local type. You just fade so perfectly into the crowd of imbeciles we have around here that we'll forgive you. Keep smiling you little dust BOZO

To the two ladies in the Blue Mustang LX from Indiana at the Taco Bell drive thru, Sunday night Oct. 4. The two guys in the silver VW behind you are interested. Respond, (please) Box 4245.

Washington Lie? You look goooooo!

SARAH. The past month has been great. Hope that our future months together are just as special. Best of luck with the sorority. JON

Good God, Spock. You're an idiot!

Real men build the Long-EZ.

Avon calling!

JODY Thanks for the sunrise and the smile- You are the apple of my eye! MRATHEAD

WERU. I have always supported your efforts to obtain a campus radio station, but I oppose your expression of political views (i.e. Bleeding presidents and slamming congress). I support free speech and expression but not with my SGA funds. CONCERNED

To the furry babe in the Renegade, I saw you and I need to be laid. If you want to see my bag of tricks, Thrust your reply in my box, 7116.

SUGAR PLUM, These have been a wonderful 31 days. I love you! We have to buy stock in Trojans! LOVE, KRYSIA

IRELSA, Kan U. spel S-U-I-S-H-I-I SIL.

PUSSYCAT I really missed you this weekend. Kept waking up looking for you. Hope your car is fixed now and that we can be together again. I love you! KITTY

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.

Earn Extra Income Earn \$200-\$500 weekly mailing travel brochures. For information send a stamped address envelope to: Travel Inc., P.O. Box 2570, Miami, FL 33161.

Campaign volunteers needed! Experience the political process and add it to your resume! Call David at 756-5760.

Typing resumes, term papers, using WordPerfect 5.1. Printed on laser 11P III. Spell check and scalable fonts available. Reasonable, fast. Call Phyllis at 255-7883.

Hullo BRAU! Anyone interested in group kite flying one line, two line, or four line kites. All skill levels. Contact Matthew Word at Box 2761 or phone: 226-7406. The kite guy, on the softball field.

SCUBA Class starting Oct. 19. PADI open water certification. Two West Palm Beach Dives, Bahamas option, \$130. Includes all equipment. Nothing else to buy. Contact Mr. Routh 226-6864 or 1-426-2911.

Be an exchange student! If you want to experience the ultimate Wall Street game call 760-0117 and ask about the Challenge.

I would be extremely grateful if the student who borrowed two of my personal books on the AV-8 Harrier, would return them to my office in room 114A of the ASSI building. Thanks Pete Rousseville.

Get your CFI! Fast and cheap. Best training available. Highest quality from experienced instructor. Also Available, Private, Commercial BFR, spin. Call Ken or leave message at 760-9265.

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Don't believe everything you hear. The Air Force continues to seek outstanding students to fill future officer requirements. See yourself becoming a leader, graduating from college as an Air Force officer with fully developed qualities of character and managerial ability. Notice, too, the opportunities. Like eligibility for scholarship programs that can pay tuition, textbooks, fees...even \$100 in tax-free income each academic month.

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(904) 226-6880

AIM HIGH-AIR FORCE

Do you know who you will vote for?

Bing

(continued from B4)

loved so long by so many people could not "be too bad." At the least, the observation written on Bing in 1948 by his father applies: "As long as his is the 'voice of the people,' Bing's books will more than balance in this life."

Gonzaga University announced on the first anniversary of Bing's death that they would place a bronze statue of the crooner in front of the Crosby Library. Bing had endowed the library and attended the dedication in 1957. Bob Hope unveiled a lifesize high-relief bust of Bing in March 1979 at London's Palladium.

Bing held an honorary doctorate in music awarded in 1937 from Gonzaga University, the Jesuit college. Bing attended from 1921 to 1925, leaving shortly before graduating. The Central New England College, Worcester, Mass., invited him to receive an honorary doctorate in 1976, but he replied that he felt unworthy of such an honor, for he was just a crooner. Bob Hope received the degree in 1978 in honor of Bing. Hope received a Doctorate of Comedy to add to the more than forty degrees he already held.

The Joan Rivers Show and the Current Affair programs of 1991 are examples of unfair innuendo against Bing Crosby, but Gary, now 59, has been careful to state that his father was not abusive and did not tan his bottom in rages. Suzanne Somers made Bing look even worse, saying on Sept. 24 on ABC's *Good Morning America* that Gary told her Bing was a sadist. Gary's mother, however, sometimes beat him and his brothers in a rage. Bing was a demanding father, but that should not be perverted into an image of cruelty.

Bing's decency and style have been out of fashion since the 1960s.

Many of the generation of the '60s, '70s and '80s understood Bing and his generation no more than most Americans today understand Sunnis and Shiites. The 1960s developed a fashion of violence and disrespect, while the 1980s is sometimes described as the 'down and dirty' decade of greed. We still see the results of that irresponsibility. But Bing's popularity and style are reviving in the 1990s.

Bing Crosby was among the ten most popular film stars fifteen times from 1934 to 1954. From 1944 to 1948 he was at the top, a record of five consecutive years, and the next year he was second, behind Bob Hope. Bing had popular annual special Christmas shows, on radio from 1936 to 1961 and on television from 1962 to 1977, a tradition of forty-two years. His famous annual golf tournament, devoted to fellowship and charity, continues to this day. It began in Southern California in 1937, moved to Pebble Beach in 1947, and since 1986 it has been played at Bermuda Run, Winston-Salem, N.C.

Elvis began nearly two generations after Bing Crosby did and declined about a decade before Bing's death. Elvis has sold 500 million records, and Bing has sold about as many, which is a bigger feat in that he was foremost with a smaller population and the impoverished Depression generation at that. A recent estimate is that Bing sang about 3000 songs on records, on radio, TV, and in films. He recorded about 1600 of them. The Guinness Book of World Records estimates that Bing has sold 1000 million records. Moreover, Bing remained popular on television and in concert until he died.

Two of Bing's records, *White Christmas* and *Silent Night*, have far outsold any other singer's best sellers.

Bing was a gentle, generous, intelligent, educated, productive, and talented singer, actor, sportsman, and entrepreneur, one of the most important figures, popular or professional, of the century. Even *Life* magazine declared Bing two years ago one of the hundred most important and influential people of the century.

It's hard to remember the whole Bing Crosby, the winner of an Academy Award for acting, the innovative singer and jazz man, the singer of twenty-two gold records, the singer who sold about as many records as anyone else, the star of more than a hundred films (58 feature films), thousands of radio programs, and hundreds of television performances, the advocate of conservation, the world-class golfer, hunter, angler, and promoter of racehorses, the writer and lyricist, the actor of comedy, romance, and drama, the raconteur, the comfort of the Allies worldwide during World War II, the pious Roman Catholic, the family man, the entrepreneur and philanthropist. These and others are accomplishments that would make heroes of fifteen individuals or two more Bob Hopes.

Bing was unique, developed a singing style that changed popular music, and influenced all later singers, black and white, without himself being surpassed.

Typically modest, Bing offered his own epitaph to Barbara Walters in 1977. He said it might read, "He sang a fair song in tune most of the time, that he could read lines pretty good, had a good sense of comedy timing, fair vocabulary, and not a bad fellow all around. That's about it."

He felt, it is clear, that it was not for him to proclaim his importance, but lovers of ballads and films will eagerly declare his preeminence.

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WHEN?

STARTING IMMEDIATELY

WHERE?

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Note: Students sitting out in front of the Barber Shop are waiting for Health Services.

Batman Returns

to the Student Center this Thursday at 8:30 p.m.

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