CONDUCT COMMITTEE ACTION

The Conduct Committee met on Friday, February 12, 1971, to hear allegations against two students concerning violations of University regulations governing acts of dishonesty.

University allegations were an outgrowth of arrests made by the Daytona Beach Police Department, in coordination with the FBI, on charges related to the possession and/or purchase or sale of a stolen motorcycle.

The Conduct Committee recommended that one student be immediately dismissed, and that the other be immediately suspended.

In this instance an illegal "BARGAIN" has cost:
- a. One student any prospects for continuing his education at Embry-Riddle, along with the loss of a very sizeable investment.
- b. The other student a sizeable interruption, if not termination, of his education at Embry-Riddle.
- c. The two students, or their parents, lawyer's fees of considerable magnitude, probably well in excess of two thousand dollars.
- d. The existence of a definite blight on both students futures, no matter what their aspirations may be.

It is hoped that any and all others who may be thinking about solving their problems through such actions will have another, and much wiser, thought before becoming so involved. Any way you cut it, that turned out to be a very expensive motorcycle.

DEAN SPEARS
SPEAKING OUT

The AVION reserves the right to edit letters as we see fit in accordance with good journalistic practice. All letters must be signed, although names will be withheld upon request from the writer.

PRESIDENT'S CORNER

ward your ideas to Box 606 and do it now.

At this week's SGA meeting a directive from President Hunt informed us that there was no possibility for a change in the location of the 1971 commencement exercises. The administration was firm on this point, and seemed unconcerned that they had broken a promise made to the senate earlier.

A suggestion was made to have the next Bar-B-Q on Sunday. If you feel this is a good idea, contact your senator and let him know your views.

Next Tuesday in Room 108 at 12:15 pm there will be an open meeting for all students to discuss campus issues with President Hunt Dean Mansfield and Dean Spears.

Stan Widak
President

HAPPYLAND

Crisis

bob duden

Once a long, long time ago, there was a country called "Happyland." "Happyland" was in a fertile valley but for some reason very few of its inhabitants ever reaped any benefits from it. On one side of the valley, lived the majority of "Happyland's" inhabitants. The peasants labored many hours and it was in standing agreement among themselves that their lives in the valley were exploited.

Each year in Springtime, the peasants held a festival. For this occasion they used the largest and most elaborate building in the valley. The festival was always a happy occasion for each year, wise King Jack would give some of the peasants their freedom. A freeman could move from the valley and use the many skills he had learned to bring much wealth and fame.

On this one particular year, the Peoples Political Party (PPP), an undercover organization very few peasants took an active interest in, had failed to make arrangements for the festival until it was almost Springtime. As the festival approached, the inhabitants grew more and more restless and more and more disillusioned in their homeland. Finally, the wise king decided to take measures into his own hands. The festival would be held on the arid wasteland just outside the valley. Of course, the king made all the arrangements to make the wasteland festival as beautiful as those in the past but still the discontent grew. All the peasants naturally assumed the king was behind another of his prior stunts to save money. They all grumbled and griped. They sassed their superiors, sent nasty letters and even refused to attend the festival. Not once though did they offer their own assistance.

In the end, the festival was held and as in the past, was a big success. Once again the PPP grabbed the credit and the people of "Happyland" applauded their job. No one thanked the king.

MORAL: You can take out more than you put in...

Rumor of the week - President Hunt will be on campus three days next week. Fact of the week - The rumor is true.
Delta Chi

By Kimble

Here we are into the sixth week of the trimester. The time really flying! Last Saturday saw Delta Chi as the largest representation of a single group at the Valentines Dance.

Brothers Ralph Fabozzi and Kent Roper will be going to Tuscalooga, Alabama on March 8th to attend a conference of region 9 of Delta Chi to obtain further information for our chartering. They will be attending meetings, initiation dinners, and a formal ball.

CAR WASH. There will be a car wash tomorrow sponsored by Delta Chi, our pledges, and our little sisters. There will be 5 locations in town which are announced on posters around the campus. We are hoping to see you there.

Our pledge class now numbers 19. They are finally settling down and are learning more about Delta Chi. Each week under Brother Roper's pledge education classes.

That seems to be it from Delta Chi for this week. Please support our car wash!

Sigma Phi Delta

Sigma Phi Delta wishes to thank everyone who took part in our raffle this week and congratulations to Gary Young who won the twenty dollar gift certificate. Congratulations are also in order to instructor Victor Tisdel of the Aeronautical Engineering Department who will be initiated this Saturday as a faculty member of our fraternity.

Pi Chapter was graced with the presence of three of its alumni this weekend. Lt. Vic Wahlberg took time out from his Airforce C-130 training to spend several days with us. Ralph "Rotten" Man cusso, and the kids, came down from New York for several days and Rand R. Boyd Curry came down from Aero Commander to become engaged. Susie looks very good with the Rock of Gibraltar on her left hand. This week our softball team came home with a victory over the Indulgers.

AVION, your turn is next.

Friday night our pledges went out in search of the famous Sigma Phi Delta Rock and were graded on their return to the house with 150 water balloons. Their spirits are high and will make fine brothers.

This coming weekend we plan to have a Bar-B-Cue for members and friends. Finally, we would like to give the Fickle Finger of Faith Award to the select group on campus for having attained their position. We are sorry we missed the election.

Alpha Eta Rho

BY BOB DUDEN

Alpha Eta Rho spent another lazy weekend back on the farm, except for Saturday morning that is. A work day was held, as usual, on Saturday. But on this occasion, slave driver Ron Devoy cracked his whip and got us all out side on a major house refurbishing project. It appears that the years have taken their toll on the Rho house and before the walls fall in, we felt a coat or three of paint would not only protect the house but add to its intrinsic beauty.

A Who did turn out for the dance Saturday night, and brother Gary (Scooter) Anderson turned up Sunday morning buried under a mountain of empty STP cans. Gary staggered into Hancock's early Sunday and in some manner, managed to call every race fan a dirty name. All 375 of them overpowered our fair haired Marine and tarred, and feathered him with Andy Granitelli's life blood.

Tuesday, Rho held another in its continuing lecture series. Bud Chambers, FAA Controller here at Daytona Beach, gave a talk on Tower Operations which gave those who attended an insight into the ulcer occupation.

Sigma Chi Delta

Saturday and Sunday, February 13th and 14th the brothers and pledges of Sigma Chi Delta received a telegram from Sigma Chi Fraternity stating that our petition for Charter had been "overwhelmingly accepted." As the next step, we will go through in the Sigma Chi pledge initiation which will take place at the House on Feb. 21. The weekend following this initiation we are required to take the Sigma Chi pledge examination, then hopefully all the brothers of Sigma Chi Delta will be initiated into Sigma Chi on March 5.

We still have the biggest part of the long hard road ahead of us but we believe all 34 of us will come out on top.

Monday night we had the first of three pledge line ups. The pledges get a chance to see their good and bad qualities in these sessions, and hopefully take advantage of what they go through in order to improve themselves.

Brothers are really busy now with the upcoming events involving the fraternity as well as fast approaching mid-term exams.

Cont. next page
Sigma Chi Delta cont.
Its going to mean alot of sacrificing and extra effort on everybody's part.
This is something we feel is well worth the effort and we will be able to look at the rest of our lives.
Delta Pledge Class

Lawrence Sweeney

The Delta Pledge Class of the Sigma Chi Delta Fraternity is now entering its fourth week of pledge-ship. The pledge class had their first lineup Monday night, the lineup being a fraternity tradition of reviewing the pledge class. There are now twelve pledges in the Delta Pledge Class and all have been extremely busy these past three weeks, work parties and in meeting pledge class responsibilities.

The first three weeks of pledgeship has been a unique experience for all the pledges and they have shown on several occasions their zeal as pledge class. Delta Pledge Class intends to establish and maintain a fine reputation and hopes to be a credit to the Sigma Chi Delta Fraternity and to Embry-Riddle Aero. University.

Flight Quiz

By Donald E. Bundy

1. If pressure is maintained on the rudder after a turn is established, the result would be:
   a. a skid, due to excess centrifugal force
   b. a slip, due to lack of centripetal force
   c. neither of the above

2. Why is it necessary to slightly greater rudder deflection during the recovery from a steep turn than entry into the same?
   a. it is necessary due to the G's imposed
   b. it is necessary due to the airspeed loss
   c. higher angle-of-attack necessary to maintain lift
   d. all of the above
   e. none of the above

3. There are 3 classes of turns, gentle, medium and steep. Gentle turns are those so shallow that:
   a. the airplane tends to hold a constant bank without control force on the ailerons
   b. the inherent stability of the airplane is acting to level the wings unless some control force is used to maintain the bank.
   c. the overbanking tendency of the airplane overcomes stability, and the bank tends to increase unless pressure is applied to the aileron control to prevent it.

4. Upon entering a left turn without application of rudder, you would most likely expect:
   a. skid to develop, yaw in the direction of turn
   b. slip develop, yaw opposite to the direction of turn
   c. skid to develop, yaw opposite to the direction of the turn
   d. slip to develop, yaw in the direction of the turn
   e. none of the above

5. The angle of attack of an aircraft is the acute angle measured between:
   a. the chord line and the earth's horizon
   b. the mean camber line and the relative wind
   c. the relative wind and the chord line
   d. the mean camber line and the earth's horizon

CORRECT ANSWERS TO QUIZ:
1-A; 2-D; 3-B; 4-B; 5-C.

TREASURE ISLE MOBILE HOMES

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VETS ASSOC.

Meeting TONIGHT 8:00 p.m. at Boars Head Lounge Howard Johnsons off I-95. Wives Auxiliary will be represented.

Don't forget - theatre tickets can be purchased for $1.25 at the Used Bookstore. The following individuals can pick up their checks from book sales at Used Book Store.

- Steven T. Atha
- Jerry L. Austin
- Paul Barbato
- Herbert C. Garabour
- Bruce Beeson
- David W. Bernhouse
- Joseph L. Bidopia
- Henry R. Bird
- Charles A. Levin
- Art Braun
- Bill Burke
- Wayne M. Colyer
- Cesar Constatine
- Frank Cook
- Grant W. Cooper
- Dennis A. Day
- Michael Denton
- Ronald W. Dzialga
- Clyde Gart
- Luis Estevez
- John E. Felin
- Ivan L. Fletcher
- Stephen A. Foster
- Peter G. French
- James A. Garrett II
- Raffi Grinberg
- Timothy J. Guinter
- Bruce R. Gunn
- Jerry M. Hood
- James C. Hope
- Mike Hoyle
- Sue Hurlibutt
- Willi J. Jackson
- Brian D. Kelly
- Joseph H. Kerske
- Peter Lancier
- Robert E. Lee
- E.A. Lempa
- Philip L. Lonergan
- Douglas MacKaye
- Wm. George Martin
- Richard McGinnis
- Michael B. Meck
- James G. Mills
- James W. Mitchell
- George Moran
- June Murray
- Robert Noak
- Paul Norelus
- Vaughn T. Olson
- Claude Ouvrard
- James Parker
- Bill Pearson
- Lee B. Perry
- David A. Persens
- George N. Porter
- Allen B. Powers Jr.
- Daniel R. Rees
- Edwin T. Reymond
- John R. Reynolds
- Rafael Rivera
- Dennis W. Rose
- Ronald Ross
- Robert Sandh
- Karl H. Schwoerer
- Herbert M. Seeley
- William Servis

WM. D. Sherrod
Stephen Sims
Gary M. Spangler
Russ Strine
Dwight Thomas
Neil Tiedt
Jerry R. Varnon
Wayne John Wedlake
Greg Woeber
Thomas Wooten
David Woznicki
Wayne C. Yetman

All checks will be held for six months, after which time they will revert back to the Vets Assoc. This list will be published again this trimester.

Trip to Busch Gardens is scheduled for Saturday, Feb. 27th. More information on that at the meeting tonight. See you there!

ERVWA by Peggy Kidder, Secretary

ERVWA met February 9th at DBP's Mural Room. The main topic of discussion was the BAKE SALE. Definite arrangements were made as to time, date and place it will be held. The BAKE SALE will be held March 6th, beginning at 10:00 a.m. at K-MART SHOPPING CENTER. We will have cookies, cupcakes and candies and many other goodies so hope to see everybody there.

The ERVWA has been invited to the Vets meeting on February 19th at the Boars Head Lounge, I-95 and U.S. 92. All the wives plan to attend to show our full support of the Vets Assoc. We also discussed some projects to work closer with the Vets.

Donna Riley has temporarily accepted the position of Historian for our organization. We will be setting up a charge account for her to buy film and equipment.

The next meeting will be held at Carol Wagner's home at 1234 13th Street at 7:30 p.m. We will be holding nominations for officers for the next six months. We hope everyone will turn out for this.

SHOPLIFTING

Recently an Embry-Riddle student was arrested at Eckards Drug Store on Nova Road for shoplifting a tape cartridge. Besides the fine imposed by the court he was required to appear before the University Conduct Committee. The committee could have declared that the student be expelled. It felt, however, that for a number of reasons, primarily the

CONTINUED PAGE 6

HELCIPTER PILOTS NEEDED.
A.T.R. PREFERRED COMMERCIAL ACCEPTED ALSO COMBAT MEDICS WITH DUSTOFF EXPERIENCE LOCAL CORPORATION WORKING ON CONTRACT IN THIS AREA SEND RESUMES TO OMNI AIR INC. P.O. BOX 890 NEW SMYRNA, FLORIDA 32079

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A HOUSE IS NOT A HOME
BY GARY ANDERSON

Lately some rather misinformed students have been claiming that our administrative higher-ups have become detached from the realities of the school’s situation. For example, they point out that the administration hasn’t yet provided on-campus food facilities but has bought the President of E-R a house for many thousands of dollars. Now I think these critics are unfair and I think I have an answer that will clear up the misunderstanding. My plan is to let the President live at the Academic Complex. Why not? It’s big, it’s impressive, and it’s vacant after 9 o’clock at night.

There are uncountable advantages to having him live there. First of all, we wouldn’t have to shout and complain anymore when the heat or air conditioning breaks. I’m sure he would be more than willing to have things like that fixed the minute the temperature goes below 20 degrees.

Since the Sands machines are right there he can cater any size fund raising parties he wants. After all, he’s been telling us for years that the machines are more than adequate.

Granted there’s no bathing facilities, but that can be elevated by having

For College Men

Platoon Leaders Class
No on-campus training ■ Freshmen and sophomores attend two six-week summer sessions at Officer Candidates School, Quantico, Virginia ■ Juniors take one extended session in summer before senior year ■ Commissioning on day of college graduation ■ Ground officers then attend six months of advanced leadership training at The Basic School, Quantico ■ Aviation officers report directly to flight school

Officer Candidate Class
No on-campus training ■ After college graduation, candidates attend Officer Candidates School, Quantico, Virginia ■ Upon commissioning, aviation officers begin jet or helicopter training ■ Ground officers report to The Basic School, Quantico, for six months’ advanced training.

Ask A Marine
STU CENTER/9:00-3:00/23-24FEB

"Ever since you started using a cane and wearing that glass, you look much more distinguished."

SAFETY TIPS

The following article has been reprinted with permission from Air Progress, February 1971, Light Twin Spins, by Robert T. Smith.

Everyone knows twins are safer. Extra engine, security backup and all that. But they have a kind of achilles heel: their rotten spinning characteristics. This is usually a dormant kind of hazard, since during normal operations, no one gets anywhere near the kind of attitude and configuration that’ll cock a light twin into a spin.

There’s one exception, though. And that’s when the single engine pilot is stepping up to multi-engine flight, and is under going all the little engine-yanking tricks of the instructors’ trade. The fact is, twins are difficult to recover from a spin.

A lot of lip service is given to the fact that an aft center of gravity contributes to “flat spinning characteristics” in any aircraft, and many spin accidents have involved light twins loaded with an aft CG.

The aft CG certainly does not help the situation but it is usually incidental to the problem involved in spinning a light twin.

Most modern aircraft-including light twins—are difficult to spin, but once a spin is induced, recovery may not be easy. In light twins, it may be impossible.

A spin in any airplane is caused by stalling the airplane and making it yaw at the stall. In single-engine airplanes, the rudder is used to introduce yaw, but in light twins, it has been found that if one engine were shut down, the asymmetrical thrust provided by the other engine operating at high power provided the required yaw to induce a spinning condition.

CONTINUED PAGE 10

Shoplifting cont’d

students’ young age and past record that a lesser penalty should be imposed.

The point that should be noted is that shoplifting is a serious offense that must be treated seriously. An arrest and conviction could result in dismissal from Embry-Riddle and a permanent record which would eliminate any chance for a professional in the aviation industry. Consider the value of a tape cartridge against the potential loss of $100,000.00 or more in lifetime earnings if you are tempted to shoplift.
February 16, 1971

The sixth regular meeting of the SGA Senate was held today in Room 108 with 35 members attending. The meeting was called to order at 12:25 by Speaker of the Senate Charles Hoover. The minutes of the previous meeting were accepted as written unanimously.

President's Report. Secretary Larry Lagawa has withdrawn from school; since he is no longer a member of the student body or the SGA, the office of Secretary has been left vacant. President Widak appointed Connie Strine to fill this vacancy, with the unanimous approval of the Senate.

First Vice President. There will be a leadership school in Tallahassee; any interested students may attend. Contact Dan Smock for further details.

Second Vice President. The new school rings have arrived and do not meet the specifications set forth in our design.

Dorm. Dormitory residents are trying to form a new Dorm Council and are looking for volunteers.

Food Service. There was an overwhelming response to the food preference poll. Most of Sands' suggestions met with student approval.

Publications. Individual pictures for the PHOENIX will be taken in two weeks. The PHOENIX is still 250 books short of the anticipated sales goal.

Social Functions. Plans for a barbecue March 13 are underway. It was suggested that the barbecue be held on a Sunday for a chance to give those who work on Saturdays a chance to attend. No action has been taken on this suggestion as yet.

Student Aid Fund. Deadline for filing applications for the Student Aid Fund grants is March 1.

Old Business. Dave Harvey introduced his proposal for a control and evaluation committee, whose duties would be 1) to oversee the money situation and make sure the SGA budget is followed, 2) to evaluate budgets, and 3) to check on equipment, etc., purchased by the SGA. The committee chairman would relate committee findings to the Senate and coordinate the committee's functions; the vice-chairman would attend Executive Board meetings; and the evaluation advisor would evaluate budgets. A motion to form a Control and Evaluation Committee, whose duties shall be those outlined above, was passed 25 for, 2 against, 5 abstaining.

Graduation. Mike Levin read President Hunt's letter to President Widak concerning graduation. Among the "multiplicity of complexities" surrounding a change in date from April 19 to April 20 was the inconvenience to guest speakers, who have already planned on April 19 and might not be able to come on April 20, and the inconvenience to graduates' families, who would have to stay an extra day. Therefore, commencement will be held on April 19 as scheduled on the campus. Mr. Hunt stated the area adjacent to the academic complex will be sodded and requested the cooperation of all students in making commencement an event to be proud of.

President Widak stated that the 150 students who indicated they wanted graduation at Peabody Auditorium were not considered sufficiently representative of the student body by the administration; 300 is the minimum.

Dennis Cunningham asked why, if the area in question is to be sodded, was it seeded yesterday?

Dave Amstutz suggested that Memorial Stadium might be a better location, since seating for visitors and a lawn are already provided. The only expense would be rental of chairs for the graduates and guest speakers. President Widak replied that the money for sodding the "sand patch" is already in the new complex's budget, under "maintenance."

A motion to accept the administration's action on graduation, which will be held April 19, was passed, 13 for, 12 against, 7 abstaining.
The constitution of Alpha Rho Omega Fraternity was accepted by the Senate, 30 for, 1 against, 2 abstaining by roll call vote.

A motion to create a committee consisting of Mike Levin and Stanley Widak for the purpose of insuring that the administration's plans for graduation proceed as promised was passed, 29 for, 2 against, 2 abstaining.

A motion to request Dr. Sain and/or other appropriate administrative officials to permit the March 18 and 19 Blood Drive to be held in Room 108 instead of Room 208, to facilitate the installation and removal of equipment, was passed unanimously.

Attendance at convocation is still mandatory.

New Business. A motion to invite President Hunt, Dean Mansfield, and Dean Spears to next week's meeting (February 23) and to publicize their invitation along with the invitation to all students to attend the same meeting to voice their questions and complaints, was passed 27 for, 2 against, 4 abstaining.

Ralph Dietz pointed out that the information packet mailed to individuals accepted for enrollment at ERAU does not include a map of the Daytona Beach area. However, such maps are distributed to race fans, compliments of ERAU. A motion to recommend strongly to the Director of Admissions that a map of the Daytona Beach area be included in the information packets was passed unanimously.

The meeting was adjourned at 11:20.
FROM the DUGOUT
by Scooter

Old Scooter got a look at the DBJC baseball team this week. I haven’t seen so many rednecks in one place since the road show cast of True Grit came through town.

Our own group of all stars has been occupying itself by breaking bats and looking for lost balls in the canal. Actually, they look pretty good for the second week of practice aside from a marked inability to get some wood on the ball.

There was a cut during the week and the team was leveled down to twenty. This is always a painful move for the coaches. Being elective isn’t as much fun as one of the fraternities here on campus seems to think. Cutting a guy who has spent two weeks of hard work is nothing to be proud of. Maybe it’s easier to get rid of a guy who carries a little blue book.

Practice game Friday at 3:30 on the school field gang. Bethune Cookman is the victim.

to the DBJC coach

This letter is in reply to the DBJC coaches question: Does Embry Riddle have a baseball team?

Dear Coach:

We have March first, third, tenth, fourteenth and thirteenth open if you would care to accept them. This is always a painful move for the coaches. Being elective isn’t as much fun as one of the fraternities here on campus seems to think. Cutting a guy who has spent two weeks of hard work is nothing to be proud of. Maybe it’s easier to get rid of a guy who carries a little blue book.

Practice game Friday at 3:30 on the school field gang. Bethune Cookman is the victum.

Golf Team Wins!

The ERAU Golf Team scored a 9 stroke victory over a team from the Florida Institute of Technology. Playing on the Port Malabar Golf course, FIT’s home course, the Riddle team, Ike Slaughter, Tony Nanfelt, Larry Schilling, and Dave Page, finished with a total of 241 stroke Pts finished at 250.

SOFTBALL

AVION LEADS LEAGUE

The Avion won its second straight intramural league softball game Sunday with a victory over the Ball Busters. The Avion leads the league in runs scored with 57 in 12 innings of play. Come back from behind playing and that “Never Say Die” attitude, which seems to have become the motto of the team, has proven to be too much for the opposition. The Avion team meets the strong Sigma Phi team next Sunday at 11:00 a.m.

SAILING ANYONE?

Persons interested in re-activating the Embry-Riddle Sailing club please contact John W. Shubuck at ERAU Box 0394 or phone 253-1307. We will try and work in conjunction with the Halifax Sailing Assn in order to maintain a year round activity calendar of sailing pleasure. For those interested the Halifax Sailing Association is holding a race Sunday, Feb. 21st at City Island. Members of the Halifax Club have offered to take those of us that show out as crew for the afternoon racing activities.

According to an Aviation industry spokesman there will be some pilot jobs available between now and 1988.

PREGNANT? NEED HELP?
YOUR QUESTIONS ON ABORTION
CAN ONLY BE FULLY ANSWERED BY PROFESSIONALS CALL (305) 754-5471 24 HOURS 7 DAYS TOTALLY CONFIDENTIAL WOMEN’S MEDICAL ASSOC. OF FLORIDA
Safety tips cont’d

Interviews with check pilots indicate that many have been in the practice of cutting an engine in a power-on stall at the moment the airplane stalls. The sudden loss of power on one side introduces a yawing moment sufficient to cause a spin. If the spin can be stopped prior to three-quarters of a full turn, it can often be halted; but if the spin passes one full turn, that recovery usually will be impossible.

Although an aft CG is blamed for most problems associated with spins, another factor present in most light twins is probably the most serious culprit preventing recovery; high lateral mass loading. This simply means that most of the weight of the aircraft (engines, fuel, even the passengers) is situated on the lateral axis along the wings. Also wing tip tanks and the problem is even more acute.

In a light twin, once a spin is started, this mass tends, as Newton stated, to resist changes in motion. In a spin, an airplane is turning about the vertical axis with the fuselage moving sideways through the air. An important factor in spin recovery is the resistance to yaw or paddle effect of the fuselage and vertical fin and rudder. Most light twins have sleek, streamlined nose sections and short-coupled empennages, so their yaw damping characteristics in a spin are at a minimum.

Since the yaw damping power of the vertical fin and rudder is a function, at least in part, of the moment arm from the aircraft CG to the centroid of the vertical fin and rudder, and aft CG will adversely affect this yaw damping power and contribute to the difficulty of spin recovery. The nose section of the aircraft can aid in yaw damping if it is large and blunt as is the case with single-engine aircraft powered by radial engines, but light twins have flat, sleek nose sections that offer little yaw damping. In the T-37 Air Force trainer spin strikes were added to the plane to provide increased yaw damping in spins.

Another factor involved in spinning a light twin is the manner in which the spin is unduced. If the spin is caused by a check pilot suddenly cutting one engine during a power-on stall, the sudden loss of power and propwash over one wing may, according to engineers, introduce spin couples that cannot be overcome by the available control surfaces of the airplane. Regardless of what the pilot does to try to stop the spin, the only solution I could recommend is to try to get the aircraft into an inverted spin by holding rudder against the spin, and full down elevator. Normally, with an inverted spin, the vertical fin and rudder are not blanketed by the wings or horizontal empennage surfaces, and may provide the necessary yaw damping to effect recovery. Obviously, tremendous amounts of altitude will be lost, and only a highly skilled pilot could accomplish such a maneuver.

No one survived those accidents in which it was established that one engine was shut down, so we do not know if the pilot attempted recovery by holding full antispin controls (rudder in opposite direction of spin, and elevator full down) for a long period of time. This would be my first action to cut all engine power, and go full antispin torques, and fold them for at least six turns. After that I would perhaps attempt to go inverted, and recover inverted.

Another important factor, depending on the airplane, may be to get a stabilized spin established before recovery is attempted. This is accomplished by holding full pro-spin controls (rudder in direction of spin, elevator full up) until the spin rate slows down for about three turns. Then, go full antispin on the controls and fold them for at least six turns. Recovery will be recognized by a sudden pitch must neutralize the controls or he will find himself in an inverted spin.

The problem in a light twin is that nobody spins tests them (because it’s not required for FAA certification), so we really don’t know the precise recovery technique to use. But, generalizations can be made, and will hold certain validity and perhaps save a life or two.

First, in a light twin, the primary recovery control is the elevator. Normally, the airplane is banked in the direction of the spin so that spin rate is also pitch rate, and it is this pitch that the elevators have to reduce to slow down the spin. The angle of attack, Fourth

Continued next page
Saftey tips cont'd

In the recovery, when and if it comes, may be do rapid that the pilot will be hard pressed to neutralize the controls in time to prevent an inverted spin.

Most of them said the airplane rolled into a vertical bank, or nearly inverted before they caught it. I consider that these people are living on borrowed time. One day they will be a little slow in reacting, and the airplane will go past the point of no return.

The solution to the entire problem of spins in light twin airplanes is remarkably simple—do not induce any appreciable amount of yaw at the stall. Don't cut an engine at the stall in a power-on stall, and don't do single-engine stalls!

If you are practicing power-on stalls in a light twin, and an engine inadvertently quits at the moment of stall, immediately reduce power on the good engine—retard both throttles. If the airplane does not respond, apply full aileron and rudder in the direction opposite to the roll or yaw, and place the elevators full nose down, and fold them for at least on turn. If the airplane stops, use the controls as necessary to recover to straight-and-level flight.

If the airplane does not respond, go full pro-spin on the controls, and reduce power to idle on both engines. Retract gear and flaps, if extended. Allow four turns for the spin to stabilize, then go full antispin on the controls, and fold them for at least six turns. The spin rate may momentarily increase, and this is normal. At recovery the nose may pitch down, and the spin rate may not slow Go to neutral on all controls. The spin should stop in one-half to one turn.

Light twin airplanes are not designed to be spun. They are not spin tested, and it is not intended by the manufacturer or the FAA that you should go out and "try them out"—either intentionally or accidentally. It is intended that you should practice stalls in them, both power-on and power-off. Just be aware, in sudden loss of power on the other engine, and prevent any large yawing because of asymmetrical thrust. And don't do single-engine stalls in a multi-engine airplane!

And keep in mind that no airplane can spin unless it is first stalled, and yaw is introduced at the stall. In all modern airplanes, spins can be prevented if the pilot is aware of the fact.

Happiness is...having Dr. Nelson for English Comp. I

Greater Happiness is..... Never having "Doc" Nelson again.

"Chicken-Neck Forever"

**Correction**

Correction to Last Week's Flight Quiz

5) VFR Rules required that your transponder be set to:

1) Code 0000 below 10,000 feet

2) Code 3300 below 10,000 feet

3) Code 1200 below 10,000 feet

4) Code 1400 below 10,000 feet

Sorry about the error. It was a summer rerun. Missed the switch. Thanks, Austin Combs—glad you enjoyed my quiz.

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HEAR NO EVIL!
SEE NO EVIL!
SPEAK NO EVIL!
AND SMELL NO EVIL.

The opinions expressed in this paper are not necessarily those of the University or all members of the Student Body, nor do letters appearing in the AVION necessarily reflect the opinion of this newspaper.

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