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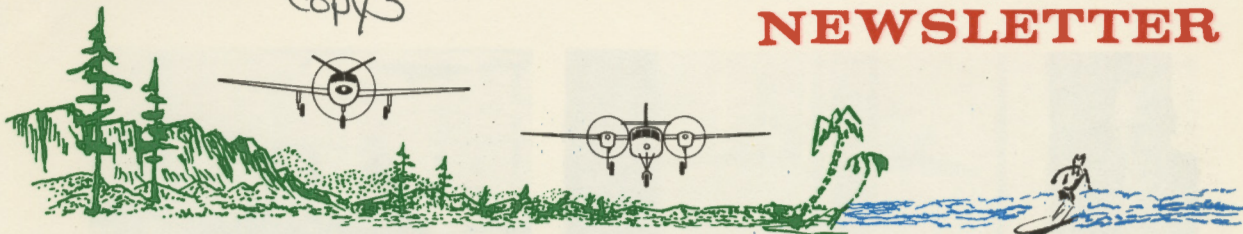
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NEWSLETTER



PUBLISHED MONTHLY BY THE SOUTH CAROLINA AERONAUTICS COMMISSION

G. C. MERCHANT, JR., DIRECTOR

J. F. BARRY, ASSISTANT DIRECTOR

No. 1

January, 1970

Vol. 2 (

BREAKFAST CLUB NEWS



Shown above are some of the Breakfast Club officers who were elected at the Orangeburg meeting. On the left is M.B. Huggins, Historian; Bert

Inabñet, Vice President for lower South Carolina; Earle Kirkwood, President; Edith Kirkwood, Secretary-Treasurer; Tom Summers, founder of the Breakfast Club; and Mrs. Summers.



Derrick, Howard, Kirkwood

Wing Scouts

The January 4 meeting which was held at Wings and Wheels Museum, Santee, South Carolina, proved to be one of the largest in the history of Breakfast Club. 250 members attended the meeting which was held at the Holiday Inn at Santee. Bevo Howard, President of Hawthorne Aviation, was guest speaker for the occasion and discussed the current situation at the Charleston Airport. At present the Air Force is not charging landing fees.

In the picture left above Coy Derrick of Columbia introduces Bevo as President Kirkwood looks on. The picture on the right shows a group of Wing Scouts from St. Mark Methodist Church in Columbia who were special guests for the meeting. Transportation for the scouts was furnished by Bill Owens, Earle Kirkwood, and Sid Shealy of Columbia. After the meeting, they toured the Museum.

Mr. Lineberry from Spartanburg invited the group to meet at the Spartanburg Down Town Airport on January 18. The breakfast will be held at Wofford College and the folks at Spartanburg have an excellent program scheduled.

TIGHTER RULES FOR AIR TAXIS

Effective next April, air taxi and commercial operators conducting operations with small aircraft under Part 135 will have to meet certain additional operating requirements. Passengers must receive a briefing on emergency procedures but briefing may be oral or written. A one-man crew cannot be scheduled for more than eight hours of flight-time duty in any 24-hour period; two pilots crew limitation is 10 hours in 24. Ten consecutive hours off in 24 are required. In the event that eight hours are exceeded due to unforeseen circumstances, sixteen consecutive hours off is required. Flight attendants will be necessary for aircraft with over nineteen-passenger capacity. Several other items, included in the original notice of proposed rule-making, were not adopted primarily because of comments received from the air-taxi industry. Some other provisions are:

Prohibit boarding by any passenger who appears intoxicated, and prohibit passengers from drinking from their own supply in flight.

Use two pilots for airplanes that have more than nine passenger seats, regardless of the actual number of passengers aboard.

Use a cabin attendant for airplanes having more than 19 passenger seats.

Place and secure cargo behind passenger, not above passenger.

Prepare a company manual for the use of flight, ground operations, and maintenance personnel unless otherwise determined by FAA field offices.

James F. Rudolph, Director of FAA's Flight Standards Service, said the new rules are based on those for the air carriers, but have been tailored as appropriate to fit the broad and increasingly complex kinds of operations associated with the modern air taxi industry. He said the industry has strengthened "its ability to absorb added responsibilities for providing safe air transportation to a growing segment of the nation's air travelers."

Over the past 15 years, FAA records show the overall number of air taxi operators has increased from approximately 2,000 to 4,000, with the number of scheduled operators going up from less than 80 in December 1965 to 240 by the end of 1968. Approximately 1.5 million passengers today fly with the scheduled air taxi operators out of an estimated 5 million who currently use overall air taxi services.

The newest scheduled air taxi company in South Carolina is International Sky Cab Airlines at Columbia which will fly four round trips daily between Columbia and the Raleigh Durham Airport.

Department of Transportation
FEDERAL AVIATION ADMINISTRATION
VFR PILOT EXAM-O-GRAM® NO. 47
GROUND EFFECT



FAA written tests for pilots require that applicants be knowledgeable in the more important aspects of ground effect. Applicant difficulties with test items relating to this topic indicate a lack of knowledge and understanding of the subject. This Exam-O-Gram deals with basic facts about ground effect and how this phenomenon can lead to a stall at the least desirable moment or delay the stall just when it is most urgently needed.

WHAT IS GROUND EFFECT? In simple terms, ground effect is the cushioning or pushing effect of the air as it is compressed by an airplane (or helicopter) flying close to the earth's surface. For most aircraft, ground effect first enters the performance picture at a height of approximately one wing span above the surface and increases sharply as the airplane nears the surface. Therefore, its effects are of greatest concern during landings and takeoffs.

WHAT MAJOR PROBLEMS CAN BE CAUSED BY GROUND EFFECT? At a height of approximately one-tenth of a wing span above the surface, drag may be 40% less than when the airplane is operating out of ground effect. Therefore, any excess speed during the landing phase may result in a significant float distance. In such cases, if care is not exercised by the pilot, he may run out of runway and options at the same time. Though it occurs less frequently, pilots sometimes depend upon ground effect to provide a last minute cushion for a slow approach and a rapid rate of sink. But, if their rate of sink is too great, ground effect will not provide the necessary cushion and the resulting hard contact with the ground may result in damage to the airplane.

During the takeoff phase, the unwary pilot can again be misled. Deluded into believing that he has climb-out capability simply because it seemed possible to take off at a speed below that recommended, a pilot may raise the gear the instant he is airborne or initiate an immediate climb. For a few feet, all may go well but he may really have only marginal climb performance, even in ground effect, and, therefore, an acute need for added thrust. But alas, everything is already to the firewall! About this time, because of the decrease in stability, the nose will tend to pitch up. At the resultant high angle of attack, the pilot finds he cannot climb, or even worse, may begin to sink. Desperately holding his nose high attitude in a futile effort to gain altitude, he steadily mushes or stalls back to the runway or into obstructions. Add high gross weight and density altitude and a bit of turbulence to this scene and an accident is even more likely.

Just remember - it is possible, when operating in ground effect, to get airborne with less thrust and lift than will be required when leaving ground effect. Know your best rate of climb speeds. It may be best to let the airplane accelerate a few moments while still in ground effect. Don't be fooled or panicked into attempting to force a climb if it is apparent that the airplane is reluctant to climb at the moment. Such attempts are likely to fail or result in serious trouble.

Department of Transportation
FEDERAL AVIATION ADMINISTRATION
IFR PILOT EXAM-O-GRAM® NO. 26

RUNWAY MARKING

Analyses of performance on written tests indicate that many applicants have difficulty in connection with test items concerning runway marking systems.

To ensure safety, efficiency, and standardization of aircraft operation, it is essential that both certificated pilots and applicants for pilot ratings be thoroughly familiar with runway markings. With the introduction of Category II landing minimums, the ability of the IFR pilot to rapidly and accurately interpret runway markings has also become especially important.

Although this information is presently available to you as a pilot, the following runway marking quiz is provided to emphasize the subject and test your knowledge. The correct answers are given on the following page.

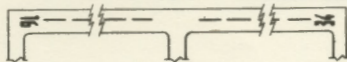


Figure 1

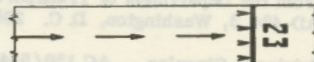


Figure 2

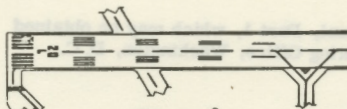


Figure 3

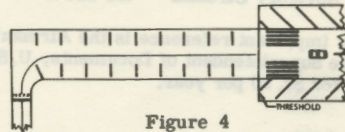
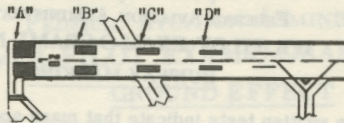


Figure 4

1. The numbers 16 and 34 on the approach ends of the runway illustrated in Figure 1 indicate that the runway is oriented approximately
 - 1- 160°/340° magnetic.
 - 2- 16°/34° true.
 - 3- 16°/34° magnetic.
 - 4- 160°/340° true.
2. Figure 2 is an illustration of a basic runway with a displaced threshold. The arrows appear in the area of the runway that
 - 1- is usable for taxiing, takeoff, and landing.
 - 2- cannot be used for landing but may be used for taxiing and takeoff.
 - 3- is available for landing at the pilot's discretion.
 - 4- may be used only for taxiing.
3. Runway 20L shown in Figure 3
 - 1- has All Weather Runway markings.
 - 2- has only Instrument Runway markings.
 - 3- is a runway marked to aid only air carrier jet aircraft during low visibility approaches.
 - 4- is 8,000 feet long with touchdown markings 500 feet apart.
4. In Figure 4, the area to the left of the threshold is
 - 1- an "over-run" with sufficient strength for all aircraft operations.
 - 2- an abandoned runway area which may not be used for any aircraft operations.
 - 3- a "deceptive area" with a marked centerline usable only for taxiing.
 - 4- a stabilized blast-pad, no part of which may be used for taxiing, takeoff, or landing.

5. If you wished to land 1,000 feet from the threshold of the runway illustrated below, you would plan to touch down at point



- 1- "C."
- 2- "D."
- 3- "B."
- 4- "A."

Answers to test items

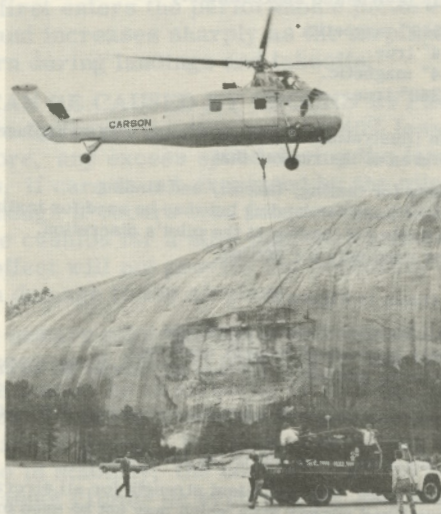
1-1; 2-2; 3-1; 4-3; 5-1.

For more detailed information, review the following references which may be obtained free of charge from the Department of Transportation, Federal Aviation Administration, Distribution Unit, TAD-484.3, Washington, D. C. 20590.

Advisory Circular	AC 150/5340-1A, Ch. 1
Advisory Circular	AC 150/5340-7A
Advisory Circular	AC 121-8

Another important reference is the Airman's Information Manual, Part 1, which may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, for \$2.50 per year.

CARSON HELICOPTERS, INC.



Judson M. Brodie III, formerly of Aiken, is now flying with Carson Helicopters of Perkasio, Pennsylvania. Carson specializes in heavy lift operations and in the picture above, Jud is lifting heavy equipment to the top of Stone Mountain. He recently completed lifting over 300 tons of equipment to a mountain top in the Gatlinburg area. Jud, a Viet Nam veteran, was formerly a pilot in the 151 Sig Bn at Newberry.

SOUTHEASTERN AVIATION TRADE MART

According to Charles Newman of Stevens Aviation, the second annual Southeastern Aviation Trade Mart is scheduled for April 30 through May 2, 1970 at the Greenville Spartanburg Airport. Last year's show was one of the most outstanding shows of this type ever held in the South. This year's program will be even bigger and better. There is a possibility that a regional meeting of the Aircraft Owners and Pilots Association will be held in conjunction with the Trade Mart.

Exhibitors should contact Charles Newman, P.O. Box 589, Greer, South Carolina.

FLIGHT QUOTAS

Secretary of Transportation John A. Volpe today announced a 10-month extension of the Federal Aviation Administration's rule setting hourly flight quotas at five "high density" airports serving New York, Chicago and Washington, D.C.

The rule, which would have expired on December 31, is now extended until October 25, 1970.

Secretary Volpe said the decision to extend the rule "was based on operational experience to date which clearly establishes that the traveling public has benefitted substantially from this measure."

"Imposing flight quotas at the five 'high density' airports," the Secretary noted, "has enabled us to break -- or at least ease -- a serious bottleneck which existed in the air transportation system. As a result, the delay situation has been improved almost everywhere."

The flight quota rule has been in effect since June 1 of 1969 at the three New York Airports -- John F. Kennedy, LaGuardia and Newark -- Chicago's O'Hare Airport and Washington National Airport. During the first six months it was in effect -- June through November -- delays were down about 27 per cent at the five airports while total operations have been reduced by about four per cent in order to meet airport operating restrictions.

FAA Administrator John H. Shaffer pointed out that the delay situation probably would have improved even more if it hadn't been for major construction work at Chicago O'Hare, the nation's busiest airport. "At times during both October and November," Mr. Shaffer said, "O'Hare had as many as three runways in various stages of construction and thus closed to aircraft operations."

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STOLEN RADIOS

The following radio equipment was stolen from a Bonanza parked at Camden:

(1)	King KX-150B, Serial No. 1970 - installed July 1968	\$1,152.00
(2)	Narco Mark 12A, Serial No. 32GPO - installed July 1968	1,150.00
(3)	Narco VOA-5 OMNI Head, Serial No. 58DQ5, installed July 68	585.00
(4)	Power Cable for Mark 12A	32.00
(5)	Narco UGR-L Glide Slope, Serial No. 13HLL - installed 12-69	595.00
(6)	Narco Glide Slope Kit & Labor to install 12-4-69	80.00
(7)	Narco AT6A Transponder - Panel Unit, Ser. No. 17E05 12-69	
(8)	Narco AT6A Transponder - Power Supply, Ser. No. 57AL4 12-69	
	Total cost of item (7) and (8)	1,295.00
(9)	Cable for Transponder 12-4-69	12.00
(10)	Labor for installing items (5) through (9)	430.00

Anyone who has any information concerning this equipment should report it to Mr. Parnell at the FAA GADO at Columbia or to the local office of the FBI.

This has been reported to the Kershaw County Sheriff's Office and the FBI as this is a federal offense. Quite a few radios have been stolen during the past year and we strongly urge everyone to keep his aircraft locked at all times.