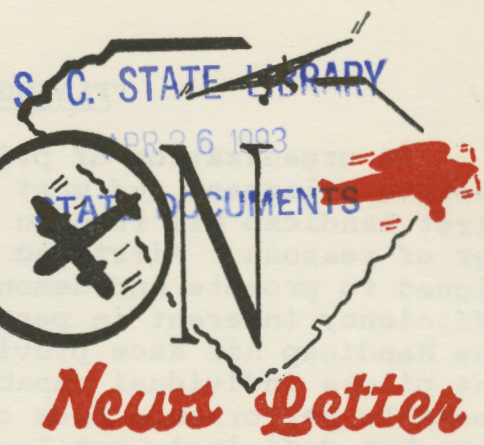


No 825
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South Carolina



AVIATION



News Letter

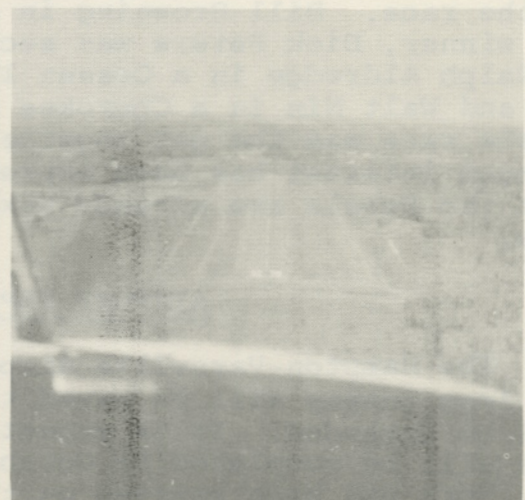
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OCTOBER, 1964

No. 10

CLEMSON AIRPORT



Work has been completed on the Clemson Airport and it is now open for traffic. The paved runway is 3500 feet long and 75 feet wide. It is lighted and also has a rotating beacon.

At present, there is no fuel available on the field and no telephone. The airport is located approximately three miles West of Clemson, just across the lake. The Aeronautics Commission received three proposals from operators and has selected Southern Aviation Service of Greenville to operate the airport.

Persons planning to stay over night at the Clemson House will be met at the airport if they call 654-2491 in advance.

"FLYING REBELS 600"

An organization of private pilots, The Flying Rebels, Georgia's largest and most active flying group held their first handicap air race on September 5th & 6th for a number of reasons. First and foremost, this event was designed to promote and demonstrate the safety, utility and efficiency inherent in personal flying. At the same time, the Handicap Air Race provides a competitive measure of the pilots individual capabilities to produce the best possible performance from our particular type of aircraft. Last but definitely not least the Flying Rebels planned this race to have fun -- and that they did.

The Flying Rebels 600 race consisted of three legs, Atlanta to Aiken, Aiken to Valdosta, and Valdosta back to Atlanta. A total of 23 aircraft and 75 persons participated in the race. Bill Browning in a Comanche 180 was the overall winner, Dick Peters was second in a Cessna 140, followed by Ralph Aldredge in a Cessna 170, O. V. Gray in a Cessna 170 and Walt Nix in a Cherokee 180C. One of the highlights of the race was the get together in Valdosta Saturday night. So much interest has been expressed in this type of program that the Rebels are already making plans for next year's race.

AIRPORT IMPROVEMENTS

The Hampton-Varnville Airport is closed for repairs. The long runway will be paved to 3600' and the clear zones will be extended. It is expected that work on this airport will be completed by October 15th.

Work has been started on the paving of the Calhoun Falls Airport. This project should be completed this fall.

The long runway at the Lake City Airport is being lengthened and paved. This airport is now known as the "Clifton J. Evans Airport" and was named in honor of Mayor Evans.

Grading and widening of the Abbeville Airport is also underway.

Two additional projects are in the planning stage, paving at Marion County, and resurfacing the runway and constructing a ramp at Barnwell.

FEDERAL AVIATION AGENCY
VFR PILOT EXAM-O-GRAM* No. 26

COMMON MISCONCEPTIONS (Series 2)

Each question in FAA Airman Written Examinations offers the examinee a group of four answers from which to select the answer he believes to be correct. Applicant's comments and analyses of the answer sheets indicate that particular incorrect answers are frequently being chosen because of a misconception regarding certain items of required aeronautical knowledge. This Exam-O-Gram, as well as Exam-O-Gram No. 17, attempts to correct a few of these preconceived ideas.



WHAT INDICATED AIRSPEED SHOULD BE USED FOR LANDING APPROACHES TO FIELDS OF HIGHER ELEVATIONS? For all practical purposes, use the **SAME** indication as you use at fields of lower elevations.

WILL THE SAME INDICATED APPROACH SPEED BE SAFE AT HIGH ELEVATIONS? **YES**, in relatively smooth air. We all know that as altitude increases, the air becomes less dense, and consequently with decreased drag the airplane travels faster through the air. However, this faster speed creates no increase in impact pressure on the airspeed pitot system because of the lesser air density. In other words, we get a higher True Airspeed with the same Indicated Airspeed. Although the True Airspeed (TAS) at which an airplane stalls in thinner air is higher, the margin of safety is unaffected since the airplane is actually flying at a higher True Airspeed. Nevertheless, for the purpose of maintaining positive control in unstable air, the use of a higher than normal indicated speed is recommended for approaches during the turbulent or gusty conditions prevalent in mountainous areas, just as is used at fields of lower elevations in these conditions.

WHAT EFFECT DOES THINNER AIR HAVE ON APPROACH AND LANDING? Even though using the same indicated airspeed that is appropriate for sea level operations, the True Airspeed is faster, resulting in a faster groundspeed (with a given wind condition). This increase in groundspeed naturally makes the landing distance longer and should be carefully considered when landing at high elevation fields, particularly if the field is short.

WHAT INDICATED AIRSPEED SHOULD BE USED ON TAKEOFF AT HIGH ELEVATIONS? Just as in landing, the groundspeed as well as the takeoff distance, will be greater at high elevation fields. However, don't let this mislead you into **P-U-L-L-I-N-G** the airplane off the ground. If you do, the airplane will mush and settle back to the ground in a stalled condition. Use the **SAME** indicated airspeed as you use for takeoff at fields with lower elevations.

*Exam-O-Grams are non-directive in nature and are issued solely as an information service to individuals interested in Airman Written Examinations.

WHAT WOULD YOU THINK IF YOU OVERHEARD THIS AIRPLANE "DISCREPANCY" REPORT? "Hey, Chief, - fix this goofed-up airspeed indicator! I was practicing power-off stalls with the gear and flaps down, but the airplane didn't stall until the pointer was 10 mph less than the white arc painted on the dial."

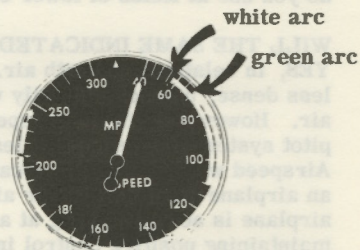
IS THE AIRSPEED INDICATOR FAULTY OR IS THE WHITE ARC MISPLACED? Not necessarily either one! Remember, the colored arcs on the airspeed dial (see Exam-O-gram No. 8) mark the Calibrated Airspeed (CAS) and not merely the observed Indicated Airspeed (IAS) limitations.

WHAT IS CALIBRATED AIRSPEED? Calibrated Airspeed, frequently called True Indicated Airspeed (TIAS), is Indicated Airspeed corrected for installation and instrument error. A wide difference between these speeds may exist, particularly at low airspeeds or under landing conditions. Installation error is caused when the relative wind or impact air in certain pitch attitudes does not enter the pitot-tube opening as it would under normal cruising conditions. Check the airspeed correction data for each airplane. You may find (as in the typical table below) that an IAS of 60 mph is actually a CAS (or TIAS) of 69 mph. (TRUE INDICATED AIRSPEED is not to be confused with TRUE AIRSPEED which is the actual speed of the airplane through the air.)

AIRSPEED CORRECTION TABLE

FLAPS 0°		60	80	100	120	140	160	180	200
IAS - MPH		60	80	100	120	140	160	180	200
TIAS - MPH		69	82	100	119	139	160	181	202
*FLAPS 20°		40	50	60	70	80	90	100	110
IAS - MPH		40	50	60	70	80	90	100	110
TIAS - MPH		57	62	68	75	84	93	102	112
*FLAPS 40°		40	50	60	70	80	90	100	110
IAS - MPH		40	50	60	70	80	90	100	110
TIAS - MPH		57	62	68	75	83	92	102	111

*Maximum flap speed 110 MPH-TIAS



WHAT IS THE RELATIONSHIP BETWEEN AIRSPEED INDICATOR COLORED ARCS AND STALLING SPEEDS? In the above illustrations, the white arc shows a stalling speed of 57 mph (TIAS or CAS), but because of installation error (reflected in the table), this airplane may not stall with power-off and gear and flaps down until the pointer is on 40 mph (IAS). A similar variation is noted for the green arc and stalling speed with gear and flaps UP. Since an airplane in flight is operated most of the time within the upper speed range, installation error is normally adjusted so as to be at a minimum in that range. This results in the greatest error at the lower speed range, but provides a corresponding increase in the margin of safety at the critical lower airspeeds.

CAN NORMAL IN-FLIGHT ASSISTANCE BE RECEIVED FROM ALL VOR STATIONS? NO, many VOR stations can be used only for navigation purposes. These stations with no capability to transmit voice signals are so marked on the chart with the notation "NO VOICE." This lack of voice transmission capability is also indicated by the letter "W" (Without Voice) in the "class" column of the Air Navigation Radio Aids Section of the Airman's Guide. Stations of this type cannot be used for weather information, position reporting, flight plans, or emergency assistance.

IN TERMINAL FORECASTS DOES THE LETTER "C" MEAN CLEAR SKIES? NO, -- when used in the cloud group of the forecast, it indicates the cloud layer that constitutes the CEILING; when used in the time group for predicted weather changes within the period, it signifies CENTRAL TIME.

IS THE WIND ALWAYS SHOWN IN TERMINAL FORECASTS? NO, -- if the wind is forecast to be less than 10 mph, it is omitted.

IS THE VISIBILITY ALWAYS SHOWN IN TERMINAL FORECASTS? NO, -- if the visibility is forecast to be more than 8 miles, it is omitted.

IS THE HEIGHT OF CLOUD TOPS PREDICTED IN TERMINAL FORECASTS? NO, -- only the base of the clouds above the surface is predicted. Cloud tops are usually found in Pilot Reports (PIREPS).

ARE ICING AND TURBULENT CONDITIONS PREDICTED IN TERMINAL FORECASTS? NO, -- this information may be found in the Area Forecasts. However, a prediction of gusty surface conditions may be included in the wind group of Terminal Forecasts. A report of existing icing and turbulence at flight levels may be found in PIREPS.

IN TELETYPE FORECASTS AND REPORTS, IS THE WIND INFORMATION RELATIVE TO TRUE NORTH OR MAGNETIC NORTH? All printed weather information, such as Area Forecasts, Terminal Forecasts, Aviation Weather Sequence Reports, Winds Aloft Forecasts, etc., presents the wind direction as measured from TRUE NORTH. To use this wind direction for the computations of problems in which magnetic values are required, magnetic variation should be applied. That is, add or subtract variation as appropriate to the area involved, when magnetic headings are desired.

IN RADIO BROADCASTS, IS THE WIND DIRECTION RELATIVE TO TRUE NORTH OR MAGNETIC NORTH? Wind direction given in traffic instructions by the tower, or in airport advisories by an FSS, is always given as MAGNETIC direction, so as to be readily related to the runway number which is also a magnetic direction. In scheduled weather broadcasts the wind is given in True direction for all reported stations except that of the station making the broadcast, in which case the wind is reported in Magnetic direction.

CAN THE DATE A PERIODIC INSPECTION IS DUE BE DETERMINED FROM AIRWORTHINESS CERTIFICATES? NO, -- with regard to the due date of a Periodic Inspection, the Airworthiness Certificate is of no value unless it was issued within the preceding 12 calendar months. This certificate is issued only when the aircraft is certificated as being airworthy at the time of original manufacture (or after being substantially altered or repaired), and in most cases is issued only once in the lifetime of the aircraft.

FROM WHICH DOCUMENTS CAN THE DUE DATE OF A PERIODIC INSPECTION BE DETERMINED? By checking the entries in the aircraft and engine maintenance records (in most cases aircraft and engine logbooks) certifying the latest Periodic Inspection. If the records show the preceding inspection was performed on April 5, 1964, then the next inspection is due at the end of the 12th month subsequent to that date; that is, by the end of April 30, 1965.

MORE ABOUT AIRCRAFT MECHANICS SCHOOL

The S. C. Area Trade School at the Columbia Airport is planning to add an FAA approved Aircraft Mechanics School to its curriculum if there is sufficient demand for such a program. Two programs are being considered:

Program Number 1. A full time school, 6 hours a day, 5 days a week. This program would be for students with no experience in the field and would require approximately 18 months to complete the requirements for certification as an A & P Mechanic. Tuition for this course will be \$15.00 per quarter for residents of South Carolina. An additional fee is charged for out of state students. Room and board are available on the campus.

Program Number 2. This program is designed for student who can meet the experience requirements for certification, but need technical instruction in order to pass the FAA examinations. This school would be conducted on a part-time basis, two or three nights per week. The cost will be \$15. per quarter.

Persons interested in enrolling in either of these programs should write to John F. Barry, Assistant Director, S. C. Aeronautics Commission, P. O. Box 1176, Columbia, stating name, address, telephone number and type of program preferred.

If enough interest is shown, the class will be started in January 1965.

BREAKFAST CLUB FOUNDER'S DAY

Don't forget the annual Founder's Day meeting at Orangeburg on Sunday, October 18th. Elections will be held at this time.

RADIO-TELEPHONE LICENSES

We have received an explanation of the radio-telephone notice which appeared in the AOPA newsletter. This applies only to a system whereby a pilot can place a regular telephone call from his airplane similar to ship-to-shore telephone service.

SOUTH CAROLINA AERONAUTICS COMMISSION

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MOORE'S AIRPORT



The picture above taken by Slim Mims, of the Sky Cab Air Taxi Service at Florence, shows the aircraft that flew in to Mr. Ollie Moore's field for the Southern 500. Mr. Moore is to be congratulated for maintaining this excellent field for the flying public. The airport is less than one mile from the Speedway and Mr. Ollie furnishes transportation to the track.

Approximately 125 aircraft flew in for the Southern 500 and the traffic was handled without benefit of a control tower.