

More Soaring IN THE SOUTHEAST

by R. Avery Hall

Sunday, September 3rd, was another milestone in the rapid advance of motorless flight in Georgia, for on this day Captain J. Shelly Charles not only broke his own state records for altitude and duration made some six weeks ago, but also accomplished the first blind flight inside a cumulus cloud ever made by a sailplane in this state. Flying his Baby Albatross "La Paloma," the same ship which was used in the previous flights except for the addition of a compass and turn indicator, Captain Charles remained aloft for more than five hours, and reached a maximum altitude of 9200 feet above take-off!

The flight was begun at 12:05 in the afternoon from Candler Airport, Atlanta, with an aero towed start to 2500 feet behind an Aeronca "Chief" 65. There was practically no wind, and scattered cumuli were forming at 4500 feet. The first hour was spent in rather weak thermals between 3000 and 4000 feet in the vicinity of the airport. During this period it was interesting to note that quite a constant lift of two feet per second could always be found in the heat from a burning rubbish heap. By taking advantage of this, the flight was safely prolonged through the early stages when the thermals were not so reliable.

By 1:00 P.M. conditions were such that cloud base could be reached without difficulty, and although blind flying is an old story to Captain Charles, who regularly shuttles a Douglas DC-3 between Atlanta and Chicago, he gingerly began a few blind spirals in this, his initial attempt at it in a sailplane. Gradually, as he became accustomed to the characteristics of the ship while on instruments, he was able to maintain an altitude of 5000 to 6000 feet by climbing in the clouds and then leaving them to cruise in search of other thermals. All spirals were made at approximately 32 miles per hour airspeed, and the lift averaged from 10 to 12 feet per second.

At this point it should be emphasized that no attempt at cross-country distance was made, due to the lack of a retrieving trailer and the necessary time. However, the flight was carried Westward as far as the Chattahoochee River, an airline distance of some ten miles, and Northward to the outskirts of Atlanta. Thus, a considerable territory was rather thoroughly covered and the most favorable spots for the formation of thermals were noted.

Shortly after 3:00 P.M. a large cumulus was located North of the airport, and with some 6000 feet of altitude in hand, the sailplane was enabled to enter as it were, through the "side door." In the words of Captain Charles, "After entering the cloud I flew a straight course until my variometer indicated the 'core' at a reading of 20 feet per second climb. Then I began my spiral, and endeavored to remain in the region of maximum lift. There was no turbulence, and I had no difficulty in making smooth turns. I was inconvenienced somewhat by the fact that the variometer and airspeed indicator which are normally mounted on the control yoke had become de-

tached, and it was necessary to hold these instruments in my lap. However, due to the heat of the thermal, the cold was not objectionable as long as I remained within the cloud. Finally, at 9200 feet above take-off by the altimeter, I inadvertently broke out into the clear where the lower temperature soon became apparent. Here I discovered that by cruising back and forth along the sunny side of the cloud considerable radiation was felt reflected from the dazzling white surface. This served to allay the effects of the cold air, although at the expense of some altitude."

Thus was the maximum altitude obtained, and as the airport is a thousand feet elevation, the height above sea level was well over 10,000 feet. The flight continued until 5:08 P.M. when the landing was made back at the airport, although it probably could have been prolonged a short time in the evanescent lift remaining.

Here we have an excellent example of that type of flight which is the dream of every sailplane pilot. Namely, to be able to take off from the home port, cruise about all afternoon at a comfortable altitude practically independent of the terrain or wind direction, and return to the point of departure in the evening, sans any of the bother and loss of time incidental to a retrieving trip. This flight was the fourth of such a nature made during the past two months, out of approximately seven aero towed starts, wherein the durations varied from one to five hours. That such performances are consistently possible is ample proof of the unusually favorable thermal conditions which exist here in the Southeast. That these performances were accomplished with a ship not yet four months old is a tribute to the excellence of its pilot, Captain Charles.

An interesting discovery concerning the thermal conditions in the vicinity of Candler airport has been the means of prolonging many flights which seemed doomed to an early finish. On a typical summer day there is an almost continuous stream of thermals released from the lee side of the field, probably produced by the radiation from the hot pavement. This is especially noticeable immediately after the take-off of an airplane, which apparently furnishes the necessary disturbance to break the "bubble" of warm air free. They are rather small, but by careful maneuvering a sailplane can utilize them as low as 500 to 800 feet.

From Chattanooga, Tennessee, comes news of another Baby Albatross nearing completion. This will be a welcome addition to the all-too-few sailplanes here in the south, and in time we hope to hear of others who are taking advantage of the opportunities which this country affords.

In due time, further attempts at soaring on winter thermals will be made in this locality. By such means it is hoped that we may open up an entire new soaring "season" which will make our activities year 'round!