

Since flights were generally sparse, the releasing of 75 alates constituted a good flight. Some were larger but some involved as few as 10 to 30 alates.

The longest flights occurred after a cold night when the temperature rose slowly because the day was hazy or when conditions were not quite ideal. One, watched continuously, lasted one hour and fifty minutes. On that day the temperature kept hovering between 70° and 71° F. Conversely, flights could be quite short. One lasted only 39 minutes because, after a heavy fog, the sun warmed rapidly to 85° and flying stopped. In this time 10 males and 8 females flew and one mating was seen. Another flight was cut short in 13 minutes.

Flights began at varying times in the morning, depending on how cold the night had been and how quickly the mound and air warmed. The earliest flight seen began at 6:30 a.m. and the latest at 10:30 a.m. (E.S.T.). Males and females could come out on the mound when the temperature rose above 57° and could begin to climb at 68° to 70°. A few have been seen to fly at 69° to 71° but few flew before the temperature reached 72° or above, and the best flying took place between 78° and 82°. None was seen to fly above 85°. When mound surface reached 84° to 85°, alates no longer came to the surface. (Unless otherwise stated, all temperatures were taken 10 inches above the ground, at about the height from which ants flew.)

Various other factors beside temperature determined time and length of flight. Rain, darkening sky, or swaying grasses could stop or prevent a flight. One stopped at 7:45 a.m. because of a strong wind and decreasing light, although temperatures were favorable. One lasted until 11:45 a.m. and finally dragged to a close when gathering clouds caused the air temperature to drop to 70°. When conditions were submarginal, it was sometimes hard to tell when flight ended because a few alates would stay on the nest; and occasionally, at long intervals, one would climb and fly. Such a flight could last into the afternoon.

One day males and females came out of the mound at 64° to 66° but did not climb because, although the temperature reached 72°, it fluctuated between this and 62°, going up and down rapidly with passing clouds. On another day the "cedar nest" had a flight but the other two did not, for different reasons. At the "cherry nest" shade kept the temperature too low. "Field nest" alates