How Fast and How Far Can Humans Fly

Our Future Airplane Speeds Will Be Almost Unlimited—But Man Must Train His Body and His Senses to Withstand the Strain, Says Noted Army Aviator

By Lieutenant Lester J. Maitland, in The New York Herald-Tribune.

Man will be able to fly great distances, at tremendous altitudes and with unheard-of speed, as soon as he can train his body, his nerves and his eyes to take advantage of the machinery engineering genius will put at his disposal.

This is my answer to the three questions of how fast?—how high?—how soon?—that are continually being asked by every person remotely interested in aviation.

How soon the human machine can be trained along these lines still remains to be seen. In the light of the achievements of our present-day flyers, I would say that the day is not far off.

Many records have been broken in recent years. Planes have climbed distances into the sky hitherto believed impossible. Over 40,000 feet above the earth, man-made machines piloted by human eagles have soared and come down safely.

A plane piloted by Squadron Leader Orlebar of the Royal Air Force has rushed through the air at a speed of more than 350 miles an hour. And the feat of remaining in the air for weeks at a time has passed into the realm of the usual.

And to the public asking just how such records affect commercial aviation, my answer is: The whole future of commercial flying is bound up in these experiments.

The machinery that has so lightened the work of the farmer was achieved through experimentation. The automobiles that now travel at so swift a pace over our roads came from the first uncertain "gasoline buggy" after years of hard, gruelling tests.

Just so the airplane of the future will emerge from its present adolescent stage into a thing of now undreamed perfection.

Nothing is impossible in connection with irplanes. Twenty-five years ago the thought of man flying in heavier-than-a craft was regarded as ridiculous. And yet, look what man has accomplished.

He has not only learned to keep himself aloft, but has been able to fly oceans, conquer all sorts of hazards and even carry on successful warfare from the clouds.

What, then, can we not accomplish in the same amount of time in the future?

We can only judge the possibility of future accomplishments in the light of past ones, and, taking the last twenty-five years of progress as a standard, the vista that opens out before students of aviation is practically unlimited in its scope of possibilities and probabilities.

Think of arising at a fairly early hour in New York, having breakfast and, due to the difference in time, arriving on the West Coast in time to carry on a day's work!

This is not idle dreaming. It is possible. The great strides aviation has made in the last few years bring nearer and nearer the possibility of man's being able to bend time and space to his will.

This fast time, according to scientists, will be made in the upper regions of the air.

The efforts made by flyers to-day to reach the ultimate ceiling are far more important than a mere desire to shatter a record.

It is up there, at a height incomprehensible to the ordinary person, that air lanes may be found over which the planes of the future will fly at lightning speed.

It is already known that in these upper regions there are winds that blow at hundreds of miles an hour. It requires no great stretch of the imagination to realize the desirability of a fast plane's taking advantage of a wind blowing 300 miles an hour.

We know from Lieutenant Orlebar's record that planes can be flown at more than 300 miles an hour. We also know that there are swift trade winds in the upper regions. Knowing these two things, the next step is to combine the two and thus increase the speed of our flying.

These upper regions lure every flyer on. They hold mysteries, and at the sa time they hold the greatest possibilities.

Here again the flyer's physical ability is taxed to the utmost. Thin air, lack of oxygen and subzero weather are the great foes of flyers at the maximum "ceiling."

There are many menaces in altitude flying. But just now I want to say more about another part of flying that exacts its physical toll from the aviator—speed flying.

In the Pulitzer race in 1922, when I raced with Lieutenant Maughan, his plane reached a speed of more than 200 miles an hour.

He come down from the gruelling test completely exhausted, and said that at times when the plane was travelling at this then unprecedented speed he was absolutely lost in a haze. On every turn he said he was stunned almost into unconsciousness, and at one time he was completely "out." Were it not for that fact that he recovered almost instantly that race would have ended in tragedy.

I myself was thoroughly fagged out, and so I could understand his state of complete enervation.

After making sharp turns flying at fast speeds I have gone "blind." This condition is caused by the blood being drav from the brain by the sudden turn in direction. While uncomfortable, it is only a temporary condition, for when the ship gets back on an even keel the head clears instantly. Th sensation is somewhat like having a bright sun suddenly dispel a dark cloud.

At the present time the strain of fast flying is terrific. It is not only a physical strain but a nervous strain as well. When the upper air lanes are fathomed, however, there will be a reat change in the status of flying.

Earth bound vehicles are restricted in their possibilities for speed. They travel now as fast as they can within the limits of safety. It is not because they are unable to go faster, but because it is not safe to do so.

The ground is covered with living things constantly crossing and recrossing each other's paths. Too great speed endangers not only the life of the speeder, but the rest of the world as well.

No such condition exists in the air. The speed limits of the airplane rest only on the ability of the pilot and the worth of his plane and motor.

My opinion is that the pilot is the chief one to be considered in the race for faster air travel. Engineers to-day can transfer from paper to reality faster planes than we are as yet able to fly.

When man is able to train his body to stand the strain, and his senses not to give way under the terrific pressure of tremendous speeds and great heights, he will find wa for him, I am sure, the plane that will make it possible to eat up distance at a pace beside which the present 350 miles an hour will be but child's play.

As the airplane industry grows older, we are constantly finding out more and more about fuels. It is amazing, in the light of recent discoveries, how little we really knew at first about this most important part of flying.

Our main struggle now is to get an ideal fuel—one that will weigh less and furnish more power—and to find a means of lubricating the motor efficiently under all weather conditions.

As for the motors that are being made to-day—they are marvels of engineering construction. They stand up under hours of flying at terrific speeds. The motor of the future plane will undoubtedly be better, however, along with the rest of the machine.

No matter to what degree of efficiency the plane itself is developed, unless we find some way of successfully combating the lack of oxygen and the low temperature of the upper regions we cannot fly there.

The ordinary person cannot—and will not—travel by air unless it is made comfortable for him. It is our business as pilots and explorers of the air to undergo hardships to prove that fast flying is feasible. But we must offer comfort and safety before the world will fly with us.

Every one can use his imagination as to what the air liners of the future will be, what they will look like and whether they can in comfort span the continent in six hours. Science and the capacity of human beings for invention will bring these things to us.

But no matter whether the coming plane have a hermetically sealed cabin or something else, of one thing I am sure—all things are possible in the future of aviation.

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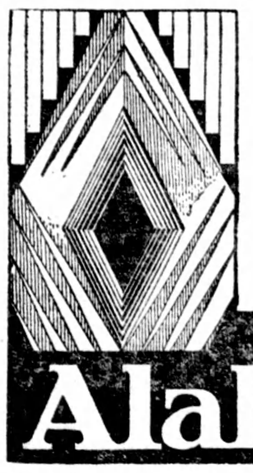

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If I thought that a smile of mine
Might linger the whole day thru
And lighten some heart with a heavier part,
I'd not withhold it—
Would you?

When men in an older day jilted a girl she took it to heart, but now she takes it to court.

Wife No 999—"And do you love me, your majesty?"

King Solomon—"I certainly do, my dear. Why, you are one in a thousand."

Three days of Spring weather and some folks are already kicking about the heat. A young married couple have to pull together to make ends meet. Money isn't everything, but it's the only thing that keeps breaking from being a crime. The instant a man brings up the subject of thrift, his wife demands that he quit smoking cigars and playing golf. The objection to unemployment is that it affects the wrong people. Like father, like son—but like daughter and you don't give a darn for the rest of the family.

He—"Just as Burgess and the widow Jones started up the aisle to the altar, every light in the church went out."

She—"What did they do then?"

He—"Kept right on going. The widow knew the way."

Hew to the waistline, let the hips fall where they may.

Gladys—"After I'd sung my encore, I heard a gentleman from one of the papers call 'Fine! Fine'!"

Harry—"Goodness! And did you have to pay it?"

Riddles

Why is a dog biting his tail a good manager? Because he makes both ends meet.

What is the difference between a butcher and a flapper? One dresses to kill and the other kills to dress.

What sleeps in the daytime and flies around at night? A bat.

Sometimes youngsters display an amazing grasp of popular ideas. Like the little boy who was asked by his mother recently:

Mother—"Were you a good little boy at school to-day?"

The Son—"Yes, mamma, I didn't get caught once."

Judge—"You stole eggs from this man's store. Have you any excuse?"

Accused—"Yes, I took them by mistake."

Judge—"How is that?"

Accused—"I thought they were fresh."

The reason a Scotch bagpiper walks up and down when playing the pipes is because it is always harder to hit a moving target.

What makes life dreary is the want of motive.—George Eliot.

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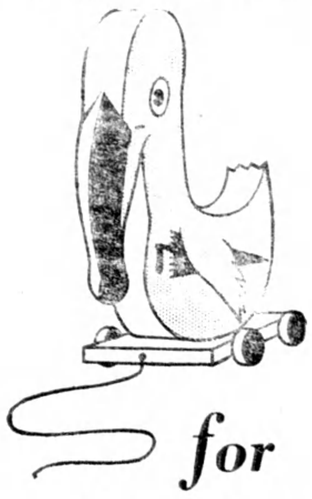

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