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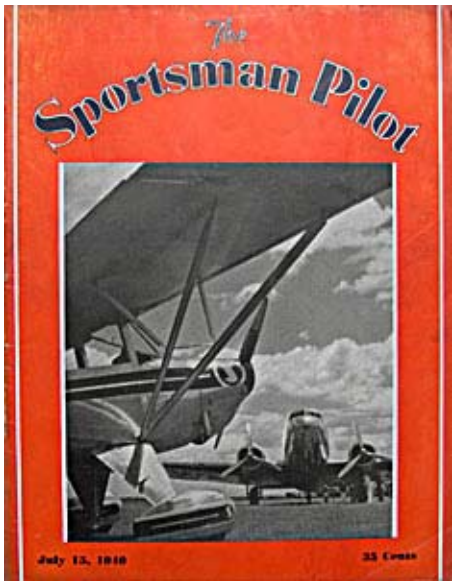
The Light Planes Have a Mission

By W.T. Piper



One question which is often asked is: What can the light planes do in case of a national emergency? Since they were designed for non-scheduled use and since none of them has ever been tried out by our military forces, we must depend upon a short review of what they have accomplished to indicate their value under war conditions.

The light plane is a by-product of the depression, and has been developed to its present status with a limited amount of capital and no government help, except for the recent impetus created by the Civilian Pilot Training Program. It was backed largely by private individuals who believed in it. Until recently the total capital of all the companies making light planes was less than $1,000,000 but today two-thirds of our non-scheduled planes are of that class, and practically all primary training is done with them. The one exception is where the public pays the bills – in Army and Navy training.

Aviation was unfortunate in getting its big start in the late twenties when dollars and doughnuts had approximately the same value. The largest and most expensive farm was selected for the airport by some "Aviation Sponsor". A large hangar would be built - as large as the county court house and equally ornate with doors having span and height to accommodate the expected airliners. Then a carload, or two, of planes equipped with war surplus engines would be bought and everything was ready for the youth of America to fly in a big way. Only one thing was lacking – a sufficient number of wealthy youngsters who could afford to use this equipment.

When the depression hit, many planes were worth less than the operator still owed on them. Practically all activities at the airports stopped, and at just that time the first light airplanes were built. They were not so hot, but they were easy to fly and easy on the purse. Many pilots wouldn't even get into one of them, but it soon became evident that wherever a "putt putt" was in use, there was something doing from early morning until

dark. The little planes made money for their owners and in spite of much ridicule they multiplied rapidly, until today they dominate the air just as the low-priced cars d the highways.

Before the light planes became common, airports were being abandoned and both pilots and planes were decreasing in numbers. Before the depression 200 aircraft manufacturers and companies were feverishly building airplanes. They are now "gone with the wind" and in their place a half dozen manufacturers are producing small planes at the rate of 6,000 per year. Ten years ago a new pilot would receive a license number near 20,000. Today he receives a number well over 100,000. The licensed planes now exceed 12,000, of which number a few hundred are airlines, about one-quarter are medium sized planes often dating back to 1928, and two-thirds are light planes, most of which are less than three years old.

These are the planes you see when you drive out to the airport. They have been greatly improved in every respect. The engines are almost unbelievably reliable. Most of them are made by three companies, one of which is set up to make 3,000 units per month. The other manufacturers can speed up in production if the demand warrants it, so there need be no bottle neck in low price engines.

People joke a lot about the speed of the flivvers. They do justify the doggerel: "The crowd in the bleachers down below rubbed its eyes, then stared again, amazed that man could build a plane, that flew so gol-durned slow." As compensation for this slow cruising speed they have an unusually low landing speed and ease of handling which give confidence to beginners. Their present value comes from the fact that so many of them are immediately available and that their output can be increased greatly.

Whatever our future as to economic development or national emergency, we may be sure that the light planes, like the Continental-powered Cubs shown here, will prove highly important factors. They have exerted a great influence already. The potentialities are even more impressive. (This picture, which accompanied the original editorial in "The Sportsman Pilot", was taken at Palo Alto, California.)

There is no question in my mind about the feasibility of mass production of airplanes. With our manufacturing facilities we should be able simply to overwhelm any air force sent against us by mere numbers. Bridges across the Mississippi river will always be hand-tailored, and so will the massive bombers, which makes them slow to build and very expensive. Like large animals, they are vulnerable to attack by small units. Where are our prehistoric monsters? They are all gone, but the little bugs are still here, and may get us yet. If we would decide on a small maneuverable model it could be built in such quantities that few enemy planes should ever reach their objective and none should get home safely.

Above all things we need a balanced program. It is taken for granted that a sufficient number of guns, munitions, etc., for additional airplanes will be made available, but airplanes without pilots and landing fields are as valuable as an automobile in a field of sand. Several years ago when the CCC was first proposed I wrote to the director suggesting that his boys build us some airports or landing strips, but was told that this was not their job. About the same time I wrote to Governor Pinchot, of Pennsylvania, asking that a little relief money be

spent to build occasional fields in our mountains. This same reply came back: "No funds available for such work." Such reactions are not excusable on any basis.

Some of those fields might prove valuable now, but the money that could have built them has been dissipated on thousands of non-essential projects. The work of building these fields must be started immediately and we should use machinery so that we can get value received for every penny spent.

It takes time to train a competent military pilot. Many of the candidates are washed out and the flivver planes should be of real service in eliminating the unfit. In the past few years thousands of boys have learned to make cross-country trips in light planes. They get the feel of the air, acquire weather wisdom, develop their judgment, and learn to handle the controls subconsciously. The mechanics who service the panes get to know airplane construction and to understand simple engines thoroughly; both the pilots and mechanics will need to be trained further for "front line" aerial warfare, of course, but thanks to the light planes they will have acquired the rudiments and at very small expense.

With the light planes now in use we could start teaching 100,000 pilots at the local fields. That is, if we have the fields and instructors. Now is the time to inaugurate some plan for helping the partly trained young pilots who have been hanging around airports for years and have been spending all their spare change for flying time. Many of these would require but a little refresher course to make first class instructors.

We are now facing an emergency and thinking not of 5,000 Army planes, but of many times that number. It is entirely proper to take every precaution in a civilian program but when action is necessary, changes in procedure are justified. Regulations in regard to kind of plane required, the number of students assigned to each plane and instructor, etc., may have to be changed.

The little planes have a job cut out for them in this preliminary training. In addition, the officers of the Army could use light planes on short trips, replacing he motorcycle and side car and providing increased safety, speed and comfort. It doesn't take a sprinter to patrol a post and wherever aerial guards are needed the little planes equipped with radios would be unequaled. With their slow landing speed and short take-off run they could get into fields no other plane could tackle; leave supplies or pick up wounded men.

They can transport the equivalent of two men and equipment at 70b miles per hour over any terrain and with an investment of less than $700 per man. They could be equipped with machine guns or could carry a load of up to 500 pounds of large or small bombs. A veritable swarm of them flown by expendable pilots, who could be trained in less time than a foot soldier spends on close formation drill, would make it mighty interesting for any kind of plane fast or slow. A collision with a small plane is just as disastrous as with a large plane. We hear a great deal abut the need for speed and more speed. Do you always need to catch a plane from behind or do they sometime come toward you? A batted ball is much faster than a man is able to run, but it is mighty hard to get a grounder past a good infield.

Since every pilot has an inherent fear of collision, whether he is in a large plane or a small one, the sending of a swarm of light planes toward oncoming heavier machines has definite possibilities.

It is also possible to use light planes as a substitute for balloon barrages. A light plane equipped with some heavy wires which could be let down from a reel after the plane was in the air could be flying over the heavier planes and also be out of range of the machine guns on the plane. The pilot of the fast plane would be unable

to see the wires and a collision with wires might be just as disastrous as being struck with a shell from an anti-aircraft gun. The advantages are that this weapon would be every mobile and the cost would be very small.

In time of war all tempos are speeded up. In the civil field we need more and better transportation. Airlines are excellent but they only hit the big towns and rarely go where you wish or at a convenient time. Slow as they are the newer planes are the best transportation available for many trips. For instance, it is an all night train ride from Lock Haven, Pennsylvania, to Syracuse, New York, or a two-hour hop with a flivver plane. Such saving can be made in countless cases.

We all think the United States has the best system of government the world has ever known and we wish to keep all the liberties which we now enjoy for the coming generations. To do this America must go to work with all its resources, materials, labor and management. The automobile disturbed our national economy, but aviation is turning the world upside-down.

Starting with a $45,000,000,000 national debt we cannot afford to waste money. Two hundred light planes can be had for the price of one bomber, or 40,000 for the price of one battleship.

Let's get out of the rut, experiment, use our imaginations and made careful plans, in order to get the utmost out of this new weapon. Every man and every machine must be used if we are to succeed.

The light plane manufacturers believe that they have an important place in the defense program. The use of their product can save both time and money. They are anxious to help and have something to offer – not six months or a year later – now.

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Footnotes In History

This engraved sign at Petersen Yacht Basin over looking Hampton Roads, Virginia reads:

BIRTH OF NAVAL AVIATION
THE VALUE OF THE AEROPLANE FOR THE NAVY IS UNQUESTIONED.
EUGENE S. ELY

Photo by Ethan David Little (4-1/2 years old)

NAVAL AVIATION DATES FROM NOVEMBER 14, 1910. WHEN STUNT PILOT EUGENE S. ELY COAXED A CURTISS "PUSHER" BIPLANE FROM THE DECK OF CRUISER "BIRMINGHAM" IN THESE WATERS LANDING IN NEARBY NORFOLK DESPITE DETRACTORS. ELY SECURED PRIVATE FUNDING AND NAVY AID FOR HIS DARING EFFORT, LAUNCHING A VIRTUAL REVOLUTION IN MILITARY AVIATION

NEWPORT NEWS HISTORICAL COMMISSION
1993