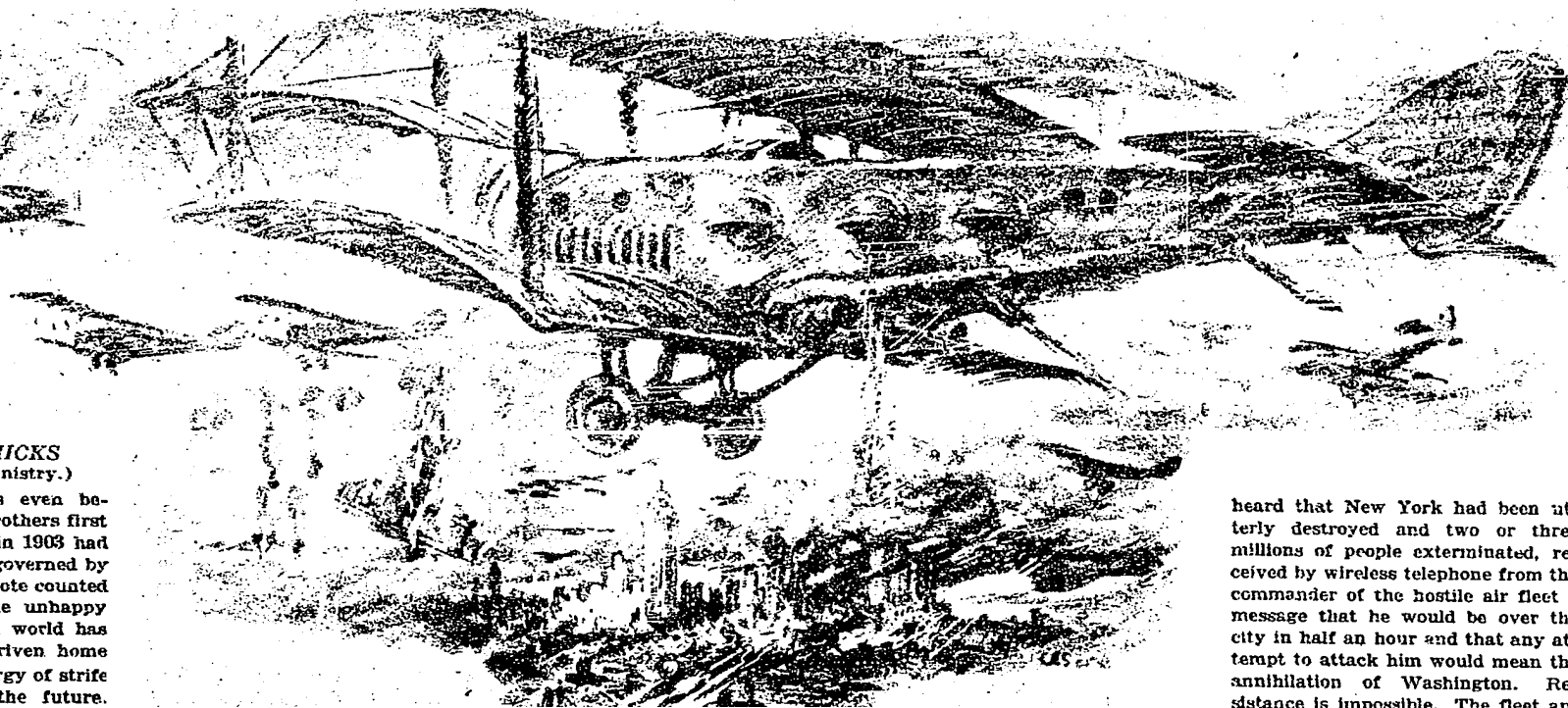


A World Ruled From the Air



By CUTHBERT HICKS
(Late British Air Ministry.)

PROPHETIC writers even before the Wright brothers first successfully flew in 1903 had pictured a world governed by air power. What they wrote counted as fiction, not fact. The unhappy years which the civilized world has recently endured have driven home the lesson that such an orgy of strife must be prevented in the future. The experience of the war gives reason to believe that air power alone can do this thing, because it is the one certain swift power that makes for crushing decisions. It is to the newly discovered element that we must look for the future peace of the world. Land and sea have proved inadequate by themselves to settle the quarrels of mankind. It is the turn of the air. There is to my mind a curious significance in a possible world direction from the sky—of authority organized for good that will leap from the heavens upon the offender.

I think there will come a time when for a while flying may be the curse of the world. Because it is almost certain that air power will pass through the same stages as have land and sea power, and will be misused in the same way.

At present flight is still in its childhood, and having reached that stage of nature those responsible for its training have not failed to observe its amazing destructiveness. Just as a nation discovered a new explosive, a new gun, a new armor, a new torpedo, so will the development of aircraft proceed to produce new and vital possibilities which greedy peoples may wish to use upon the unsuspecting. No one who studied what aircraft accomplished during the last war could fail to observe that as a weapon of destruction the airplane far exceeded any other weapon in value. Given skillful handling one airplane was the equal of a battalion, or a battery, or a battleship.

The time is coming when aircraft will be so perfected that land and sea forces will cease either to be useful or necessary, for a squadron of aircraft will have more value than an army division or a navy squadron. It is also obvious that a fleet of aircraft could be built and maintained and moved at infinitely less cost and infinitely more quickly than any other form of offense, so that the final and most deadly weapon that the ingenuity of man has devised will be so comparatively cheap as not to be a damaging drain upon national financial resources. So I repeat that aerial supremacy will rule the world; and when that supremacy is temporarily in the hands of an unscrupulous nation, then flying will be a curse. For an invincible air fleet will be able to force its will upon any country, however large, with ease.

Never was there a truer thing said than this: "Where there is no vision the people perish." Let us imagine what could happen ten years from now, given the present rate of development. A nation might easily possess 100,000 machines. This is a very modest estimate. In spite of all its losses, losses greater than those of any other nation,

Great Britain possessed 23,000 planes in fighting order at the close of hostilities. I believe the French total was not far less. These are by now mostly obsolete.

In ten years' time, apart from independent air forces and naval and military air wings, nations will possess fleets of commercial aircraft which would be available at very short notice. Suppose a great nation, or two nations working together, decide to make a bid for world control. As surprise will always be the essence of warfare, there will be no warning, no solemn breaking off of diplomatic relations. I doubt even if international spies in those power-mad countries would have time or opportunity to warn their own peoples. In twenty-four hours a vast fleet of commercial craft would be turned into war planes. If the nation or nations to be attacked lie across a long stretch of water there is nothing to prevent apparently peaceful mercantile surface craft from being on hand, ready to land further supplies of ammunition, spare parts and other necessities, and very possibly fresh machines.

The Moewe of the future will probably have a deck device from which aircraft can take off. So from its different bases the enemy air fleet rises on the appointed day for the sudden onslaught. Possibly it would be necessary to fly over neutral countries to arrive at the key position. It is very possible that there would be no detection in that case, for the attackers would, of course, ignore the international air laws; they would fly without lights, with a device that sheltered the exhaust flames, and with silencers. So at great heights the marauding fleet would pass unnoticed over any place that might give warning.

At the moment the fastest officially recognized speed attained by aircraft is one hundred and eighty-seven miles an hour—three miles every minute. What it will be in ten years' time no one can say, but, remembering that ten years ago the record speed was barely fifty miles an hour, I do not feel that it would be extravagant to prophesy a three-hundred-mile-an-hour rate in 1930.

In other words, aircraft could reach New York from Europe in ten hours. When the internal combustion engine becomes obsolete and steam or electric or gas turbines are used on aircraft, I see no reason why three hundred miles an hour should necessarily be the speed limit. It is well to remember, also, that there are machines being built today that will carry one hundred men or their equivalent in weight of bombs. Perhaps in ten years' time it will be possible to carry two hundred and fifty men or their terrible equivalent. Why not?

I have written so far entirely of heavier than air machines, but there is also the airship to be considered. During the late war the airship proved, on the whole, a failure, except for naval scouting. The phosphorus bullet finished the airship filled with hydrogen for war purposes. These leviathans were easy to attack also. But the airship filled with non-inflammable gas is entirely different. The great rigid filled with helium, for instance, would take a drum of machine gun bullets with as much indifference as a rhinoceros.

Moreover, one may reasonably anticipate that the air giants of 1930 will be armed with long range guns capable of dropping a perfect H. E. shell into an airplane formation at a range of five miles. Craft of this kind would be certain to accompany the heavier than air types on the enemy raid, for in ten years' time no nation will be commercially able to afford to be without its airships. They would not, of course, have the speed of airplanes, but would precede them and be picked up by wireless telephone at an appointed place.

Before describing what would actually happen when that air fleet arrived over a sleeping country, it might be well to think of the weapons that fleet would carry. During the late war the largest bomb dropped was, I believe, a 1,000-pounder. There were some of 2,000 pounds made, which were ready on the machines when the armistice was signed. Had the war lasted another week, it is possible that the rebuilding of Berlin would still be in progress.

Now, one airplane capable of lifting 100 men could carry 15,000 pounds of bombs; and, given only 100 machines, you have 1,500,000 pounds of bombs. Also, the quality of explosives grows steadily more deadly and devastating. One shudders to think what they will be like in a few years. Then there are gas bombs filled with gases far more swift and final than chlorine or mustard gas, and there are fire shells that spread flames everywhere.

The ingenuity of science has not as yet grappled practically with the two great forces of sound and light for destructive purposes. When they are harnessed, mere explosives and gas will be toys in comparison. It is possible by playing a note on a piano to break a glass on the dining table. It may be possible to wreck a city in the same way—by vibrations from the air. Suppose sound could be directed on to a particular spot—suppose sound could be car-

ried even as a gramophone record is carried—imagine a pulsating note poured from the sky, intensified a million times. The walls of a city would totter under it, and it might destroy the brains and ears of humanity. Then take light. Imagine light directed upon one particular spot—light that carried heat, that was like a burning glass, a lens with the sun behind it. A city would be reduced to ashes in no time.

The enemy fleet arrives over the capital of a great country in the dark. In their silent craft they take up prearranged positions; then, at a given signal, great searchlights show up the doomed spots. Then hell is let loose. So perfect will be bomb dropping devices that no mistake can be made. In one minute half the city will be in ruins and on fire. The most vulnerable places gone, each quarter of the city will be systematically covered, and, in addition to gas bombs, gas itself (heavier than air) might pour down from hovering airships like a green curtain spread over the ruins. In half an hour the whole of London or Paris or New York could be destroyed and the inhabitants would be dead to the last child.

The fleet would then proceed to the other strategical points of the country, other cities, centres of vital manufactures, arsenals, dockyards and air depots. Opposition would be practically negligible, for the suddenness of the attack by overwhelming numbers would find the victims' air forces not only scattered, but hopelessly outnumbered. In no other form of combat do numbers tell so much. I can imagine the desperate and heroic efforts of the scattered units of a small permanent air force to retaliate. They would fly to certain death.

It will have to be borne in mind, also, that probably enemy aliens in the attacked country would have received cipher warnings and have given assistance to the air fleet by signal, and also possibly with many privately owned aircraft that will have been secretly fitted up overnight into war machines.

Let us assume that by now daylight had come. Every city in the outraged country would by now know that liberty and law had been violated. It is probable that until daylight, when the outlines of the visiting aircraft could be seen, no one would know which nation it was that had sprung this sudden death upon them. Wireless appeals for help might be sent, but would, of course, be uselessly late, even supposing that the enemy forces had not jammed the wireless before attacking. What would happen next?

Just for argument, let us suppose that Washington at 6 A. M., having

heard that New York had been utterly destroyed and two or three millions of people exterminated, received by wireless telephone from the commander of the hostile air fleet a message that he would be over the city in half an hour and that any attempt to attack him would mean the annihilation of Washington. Resistance is impossible. The fleet appears and takes up positions. Thereupon, from the air terms of capitulation are made. Is there any alternative to acceptance? Except annihilation? Suppose Washington gave in, then enemy machines would fly to the air depots and land and destroy all air craft. Any opposition would mean the end of Washington and more severe final terms. This throughout a country would be the program. The power of retaliation would be destroyed. In a few hours the teeth of the country would be drawn. The air fleet would remain in the country until terms were signed and then a chain of airdromes would probably be established right around the country, housing enemy machines until the terms were carried out. That, as shortly as possible, is what could happen in ten years' time.

As there may be those who regard the foregoing description as wild exaggeration, it may be well to point out here that the Allied Air Commissioners who have been investigating the activities of the Central Powers since the armistice have issued a very alarming report. It is that, in spite of the defeat of the Central Powers, so much aerial activity has been proceeding during the last eighteen months in secret, with new developments, that our late enemy has today a larger force of up-to-date aircraft than the United States, Great Britain and France all put together. In this connection, too, it is of vital importance to learn that whereas America, England and France have abandoned the manufacture of poisoned gases and the development and improvement of such discoveries as were made has been discouraged and the manufactories scrapped, our late enemy has done quite the reverse, and her military men do not hesitate to say that victory will eventually be theirs by the combined use of air power and gas attacks. This information makes all the more significant the statement just issued by the greatest aerial authority in this country, General William Mitchell of the United States Air Service, that it would be impossible, were America attacked from the air or in any other way, to equip the aviation service under one and one-half years.

Now for the remedy. Every nation that suffered from air raids during the war received innumerable suggestions as to their prevention, but the brains of ten nations did not produce a real solution. Perhaps some means will be devised some day, but it will not be attack by other machines or gunfire from the ground. It will have to take the form of energy, destructive or confusing, directable to objects at great distances and out of sight. And were such power discovered, human

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ingenuity would probably find an antidote very quickly. The real solution of the future menace to the world lies in the formation of an international board that will govern space as far as human beings can traverse it.

Kipling gave an outline of such an aerial board of control in a story published some years ago. During the Peace Conference in Paris the Allied Powers drew up at air conferences proposals for international air laws, and in Europe the results are already showing to advantage. Out of the League of Nations there should emerge a permanent board of that kind which would work for the furtherance of the peace of the world. It should be able to exercise its authority from the air upon any nation that violates, or attempts to violate, international peace. Before its name the threat of unjust wars and wild, fanatical revolutions would die. With the combined air fleets of all nations at its control no single power could risk entire destruction by defying the laws of the board. And since such a terrible weapon would not be poised to strike unless for a good purpose and against a wrong-minded people, the offending country would know that the punishment was merited, and in a torment of fear the populace would be crying out at the doors of their Executive for a surrender.

And the rest of the world looking on would be entirely behind the action of the board. This unchallengeable power will be in the end the only solution for preserving permanent peace and promoting the betterment of the human race in a world at present on fire with greed and anarchy. The air is above us and always will be above us, and it is from the air we shall be finally ruled. It is the natural progress of evolution.

America will have to take her share in maintaining international ideals in this connection. "Splendid isolation" ceased to exist upon the advent of air power. Although she has not joined the League of Nations, America has just become a signatory to the permanent air commission which is to be instituted as part of the League. It is a move in the right direction. So long as she remained aloof she would not have enjoyed the co-operation of the contracting States in the collection and dissemination of much valuable information. Some assert that until there is an air ministry in the country little chance exists of any body of experts being gathered together to put aviation and its problems, both international and local, upon a proper basis. In any case, the science of flight and the aviation industry, together with public interest in both, have lagged regrettably in America. Whatever the cause, it is certain that every year wasted in aviation now will tell its story in ten years' time.