

A history of **Aerial Warfare**

John W R Taylor



*endpapers*

Pilots and personnel of No. 1 Squadron, R.A.F., with their S.E.5a fighters, at Clairmarais airfield, near St Omer, France, July 1918.

*title page*

Vickers Virginias approaching Weybridge airfield.

This edition published 1974 by  
Book Club Associates  
By arrangement with the Hamlyn Group

Published by  
The Hamlyn Publishing Group Limited  
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Group Limited 1974

Printed in Great Britain by  
Jarrold and Sons Ltd, Norwich

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# Introduction

In what period of history did the story of aerial warfare begin? The earliest man-to-man combats in aircraft took place in 1914, at the start of the First World War; but the Italians had used aeroplanes and airships to make reconnaissance flights, to drop bombs, and to scatter propaganda leaflets over their opponents, in North Africa, three years earlier.

If one is prepared to accept a tethered, unarmed observation balloon as an instrument of aerial warfare, the clock must be turned back past the nineteenth century to 1794, a mere eleven years after a man first left the ground in a vehicle of this kind. The ascent by Captain Coutelle at Fleurus, in June 1794, certainly represented the first use of a man-carrying aircraft during a battle; but far more sinister operations by 'lighter-than-air' military craft had been envisaged in the previous century by—perhaps surprisingly—a Jesuit priest named Francesco de Lana-Terzi. We can read of his ideas and conclusions in contemporary English, thanks to the publication of a translation of his writings by Robert Hooke.

Remembered as the inventor of hairsprings for watches, Hooke had dabbled with aircraft models, embodying wings and springs. Father de Lana considered that a simpler method of getting airborne had been made possible by the recent invention of the air-pump in Germany. He proposed raising a boat-shaped carriage into the air by the lifting power of four large globes of very thin copper from which all the air had been extracted by a pump. The addition of a mast and sail would then produce the first flying boat.

De Lana was correct in deducing that, in theory, such globes would weigh less than the surrounding air they replaced, and would therefore float on it, as a ship floats on water. In practice, he soon discovered that if he made the globes from metal which was sufficiently thin for the scheme to be practicable, they would collapse when the air-pump got to work. On the other hand, if he built them strongly enough to avert collapse, they would be too heavy.

To explain away this inherent snag, he wrote in the *Prodromo*, a scientific treatise published

in 1670: 'God would not suffer such an invention to take effect. . . . For who sees not that no City can be secure against attack, since our Ship may at any time be placed directly over it, and descending down may discharge Souldiers; the same would happen to private Houses, and ships on the Sea: for our Ship descending out of the Air to the Sails of Sea-Ships. . . . it may over-set them, kill their men, burn their Ships by artificial Fire-works and Fire-balls. And this they may do not only to Ships but to great Buildings, Castles, Cities, with such security that they which cast these things down from a height out of Gun-shot, cannot on the other side be offended by those from below.'

As the conceiver of 'so Diabolical an Engine', de Lana foresaw how years of development might make war more terrible rather than peace more pleasurable. His fears were justified long after his death. Within fifty years of the first flight in an aeroplane, the old Jesuit's predictions were fulfilled in the devastating Japanese attack on Pearl Harbor, which cost the aggressors so little; in the German skyborne assault on Crete; and in the relentless destruction of Germany and Japan by the huge bomber forces of the Allies.

Was de Lana expressing a belief or making an excuse when he commented that 'God would not suffer such an invention to take effect'? As we study the growth of air weapons from their frail childhood to a maturity in which they could destroy all life on our planet, it is a question that we might answer in a hundred different ways. Perhaps, after all, in His infinite wisdom, God thought it best that we should have the choice of keeping or rejecting—through the pressure of a single finger on a firing-button—the most precious gift He could bestow upon us as human beings. How we respond will affect us all, whether we call our God Jehovah, Allah, Manitou or by another name, or even if we accept no god at all. Only those who believe that all men are made in God's image, and are capable of thinking and acting nobly, may feel that the allocation of such a fearful responsibility was just.