

The helicopter

THE HELICOPTER the 30-second history

3-SECOND SURVEY
The invention of the helicopter transformed flight: its unique design meant it was capable of vertical lift-off and had the ability to hover over a single spot.

3-MINUTE OVERVIEW
The helicopter was put to military use almost immediately. Sikorsky's R-4 model was the only helicopter to serve in the Second World War, where it was used as a direct lift aircraft to rescue people trapped in areas inaccessible by planes. But it was the difficult terrain of the Korean and Vietnam wars where military helicopter use became widespread. Further technological refinements have made it a mainstay of modern warfare.

The first helicopter was imagined by Renaissance artist and inventor Leonardo da Vinci, whose drawings of a 'helix' flying machine were inspired by bird flight and the floating maple seed. But the modern helicopter had to wait for advances in aerodynamic theory, structural materials and more powerful engines in order to get off the ground. Igor Sikorsky's first helicopter, built in 1909, was made of wood and only had a 25-horsepower engine. Thirty years later, he invented the successful VS-300, which went on to become the model for all modern single-rotor helicopters. The invention of the helicopter stems from the evolution of a simple idea: unrestricted flight – moving vertically and horizontally, or hovering in mid-air. Unlike a fixed-wing plane, the helicopter is capable of vertical lift-off and landing – thanks to its rotary blade. It can also hover in a fixed position. These attributes make it ideal wherever space is limited or for anything where it has to stay over a precise area. That means we can use helicopters in anything from rescue work to firefighting, aerial photography and filming, accessing remote locations for environmental or relief work, and to deliver supplies and workers to remote oil rigs – all those uses, despite the fact that helicopters were originally invented solely for military and intelligence purposes.

RELATED TOPIC
See also THE WRIGHT BROTHERS page 60

3-SECOND BIOGRAPHIES
LEONARDO DA VINCI
1452–1519
Italian 'Renaissance man', a gifted artist, mathematician, scientist and designer-inventor.
IGOR SIKORSKY
1889–1978
Russian-American designer of aeroplanes, flying boats and the first viable helicopter

30-SECOND TEXT
Judith Hodge

In spite of the contributions of other engineers to the conception and development of the helicopter, Sikorsky's name is synonymous with the invention.

