The History of Airship and The New Concept Airships
비행선의 역사 및 신개념 비행선

강완구; 김동민; 김현경; 이해창; 염찬홍

Received : 0    Accepted : 0    Published : 0

Abstract

The paper describes the history of airship from the 18th century and examines the possibility and potential of new concept and high tech airships in the 21st century. The paper deals the success and failure of early pioneers, the golden age of airship by zeppelin, the tragedy of Hindenburg and following collapse of airship industry. The new concept airships, which are hybrid between the most nature friendly, accident safe airship and the technology of aerospace and other leading edge technologies, can overcome the shortcoming of conventional airplane and maximize the potential of airships. The paper introduces several new concept airships, related industry and the new technologies which are essential to develop new concept airships.

Keywords

References

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The history of aviation extends for more than two thousand years, from the earliest forms of aviation such as kites and attempts at tower jumping to supersonic and hypersonic flight by powered, heavier-than-air jets. Kite flying in China dates back to several hundred years BC and slowly spread around the world. The first great ships of the air were the rigid dirigible balloons pioneered by Ferdinand von Zeppelin, which soon became synonymous with airships and dominated long-distance flight until the 1930s, when large flying boats became popular. After World War II, the flying boats were in their turn replaced by land planes, and the new and immensely powerful jet engine revolutionised both air travel and military aviation. Early airship designs were inspired by the invention of the hot air balloon 1783. In 1784, French mathematician Jean Baptiste Meusnier drew the plans for an inflatable airship that could be controlled with propellers and a rudder, much like today's blimps, which have no rigid internal structure. In 1852, a French engineer named Henri Giffard used Meusnier's design to build the world's first powered airship using a 3-horsepower steam engine and three-bladed propeller. The first fully controllable airship, the French Army's La France, made a series of successful flights in 1884. By the end of the 19th century, Count Ferdinand von Zeppelin built the first rigid airship, which had an internal aluminum structure and individual gas cells filled with hydrogen to provide lift. The "Golden Age" airships, in all their silvery, romantic glory, were, in fact, the culmination of nearly a hundred and fifty years of development in many disparate fields. That's a long history to sort through, so perhaps we should start with the precursor to the airship: the balloon. A satirical print, British, from the late 18th early 19th Centuries, titled “The March of Intellect.” Harry F. Guggenheim Collection. As early as 1783, the Montgolfier brothers caused a huge sensation throughout the civilized world when, before a crowd including Louis XVI and Marie Antoinette, they heated the air inside an envelope of alum-varnished taffeta and launched a sheep, a duck and a rooster on an eight minute, two mile flight across the royal palace of Versailles, the first flight ever to.