Hypothetical wing design to create more lift and maneuverability in the aircraft of the future

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Abstract

Sometimes, after looking at a science fiction movie people look back and say, “I wonder if our planes could look like that some day?” Well some day they may. Research suggests that there may be a better wing design out there just waiting to be discovered and used for the rest of time. This design could be something even as unique as the impossible triangle, where the impossible is transformed into the possible. Through experimentation, this paper explains a different world where these futuristic designs of aircraft wings are taken to the drawing board and sized up against the reigning champion wing designs that are seen every day. The researcher asked the question, can a new design of wing be created to have more lift, and a lower aspect ratio than the current wing for two different styles of plane. When researching it was found that a type of hybrid wing, bridging the gap between the delta style wing and swept wing that are used on the fighter jets and airliners respectively, could possibly be the next go to wing for the airliners of the future. This new wing was able to produce a considerably larger amount of lift than the traditional wing, with the aspect ratio calculating to almost an entire digit below the traditional wing. This lower ratio provides the data needed to state that there is more maneuverability with this hybrid. In conclusion, there is evidence to suggest that there could be a better wing out there but whether it would be practical or not in real world application, was not testable due to the fact that there was not a substantial supply of materials to build a scale size of the wing.