

How to Increase Lift on an Aerofoil



Part I

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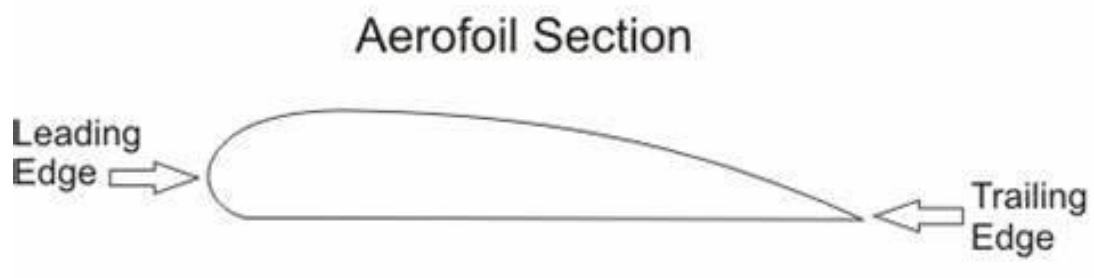
Chapter 1



Ready?

Like physics, this is how I do all of my aerospace.

[Civilization 5 Opening Cinematic](#)



Let us begin with this

The aerofoil generates lift because the pressure above the wing is less than the pressure below the wing.

Right?

So, to increase lift I could think about...



“Either lowering the pressure above the wing or increasing the pressure below the wing, Ciarán...?”

“Right, Éibhleann!

In this case lowering the pressure above the wing.”

Women: Know Your Limits!



*You see as the wing cuts through the air it **displaces** the
air*

It takes a little time for the air in the wake of the wing to come completely back to normal air pressure.

So, because the wing has cut through the air...



*“...the air in the wake of the wing is lower in pressure,
Ciarán?”*

“Right, Béibhinn!”



So how about this: On my aircraft I have a small wing in front of and above my main wing...



“The air in the wake of the front wing is lower in pressure, Ciarán, so this lowers the pressure above the main wing, generating increased lift?”

“Right, Béibhinn!”

Benny Hill



Ok so far?

Guinness “dancing man”

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End of Part I