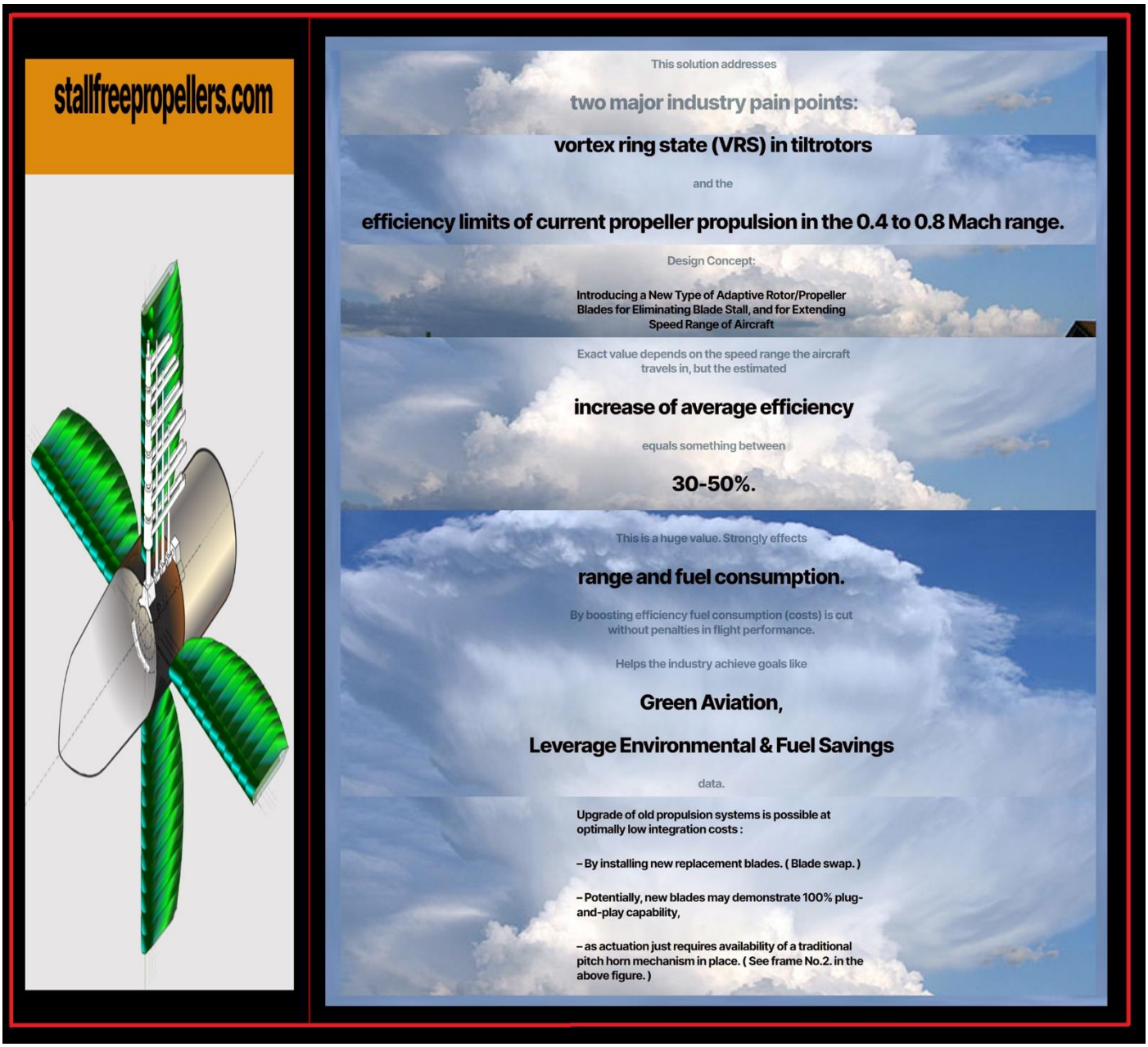
SOLUTION BRIEF



https://stallfreepropellers.com/wp-content/uploads/2026/05/Gemini-promo_01.png

This solution addresses
two major industry pain points:
vortex ring state (VRS) in tiltrotors
and the
efficiency limits of current propeller propulsion in the 0.4 to 0.8 Mach range.

Design Concept:
Introducing a New Type of Adaptive Rotor/Propeller Blades for Eliminating Blade Stall, and for Extending Speed Range of Aircraft

Exact value depends on the speed range the aircraft travels in, but the estimated
increase of average efficiency
equals something between
30-50%.

This is a huge value. Strongly effects
range and fuel consumption.
By boosting efficiency fuel consumption (costs) is cut without penalties in flight performance.
Helps the industry achieve goals like
Green Aviation,
Leverage Environmental & Fuel Savings
data.

Upgrade of old propulsion systems is possible at optimally low integration costs :

– By installing new replacement blades. (Blade swap.)

– Potentially, new blades may demonstrate 100% plug- and-play capability,

– as actuation just requires availability of a traditional pitch horn mechanism in place.

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