number of components in a power system may provide weight advantages to the design, but may additionally limit the redundant features of the power system, creating higher-risk of single fault failure and resulting in accidents from an aircraft failing during flight.

[0006] In general, it would be advantageous to provide for improved aircraft designs which allow for weight and cost savings, while providing beneficial safety and redundant design features to maintain a safe and reliable aircraft.

BRIEF SUMMARY

[0006a] According to an aspect, there is provided an electric aircraft including: a fuselage; at least one wing coupled to the fuselage; a plurality of tilting fans coupled to the at least one wing, wherein the plurality of tilting fans are configured to move between a vertical lift position and a forward flight position; a plurality of tilting mechanisms, each of the plurality of tilting mechanisms coupled with at least one tilting fan among the plurality of tilting fans; and a first actuator coupled to a first subset of the plurality of tilting mechanisms, wherein the first actuator tilts a first group of tilting fans coupled to the first subset of the plurality of tilting mechanisms simultaneously, wherein the first subset of the plurality of tilting mechanisms are identified among the plurality of tilting mechanisms according to a coupling scheme.

[0007] The described embodiments relate generally to an aircraft with vertical takeoff and landing capability. In particular, the embodiments provide an aircraft with one or more tilting fans which provide vertical and horizontal thrust in a controlled fashion for hover, transition and cruise (horizontal) flight.

[0008] Embodiments generally provide improved devices, systems, and methods for an aircraft with a plurality of tilting fans. More specifically, techniques disclosed herein provide a VTOL aircraft (e.g. an electric VTOL aircraft) with a plurality of tilting fans that can tilt between a horizontal position for vertical lift movement and a vertical position for forward flight movement. Various structures and configurations are provided which may allow for actuation and control of the various tilting fans which may further the means of design efficiency, reduced cost and safety, and improved flight comfort and performance, for example.

[0009] In some embodiments, the VTOL aircraft (hereinafter “aircraft”) may be powered by various power units. For example, in various embodiments, the aircraft may have at least one power source providing energy to various components of the aircraft. For example, the aircraft may be electrically powered, such as with one or more batteries. An electrical power mechanism may provide electrical power to one or more motors, actuators, or other powered aspects of the aircraft.

[0010] According to various embodiments, the aircraft may include a fuselage. The fuselage may make up the central body of the aircraft. In various embodiments, the fuselage may provide for various layouts, such to provide for a cockpit, a passenger compartment, and/or a storage area. As such, the fuselage may have one or more bulkheads which divide various sections of the