CLAIMS

WHAT IS CLAIMED IS:

1. An aircraft, comprising:

a fuselage;

one or more flight control computers configured to provide control signals;

a first set of electrically powered propellers and a second set of electrically powered propellers disposed on one side of the fuselage, wherein the first set is disposed forward of the second set;

a third set of electrically powered propellers and a fourth set of electrically powered propellers disposed on another side of the fuselage, wherein the third set is disposed forward of the fourth set; and

a plurality of electrical buses coupled to the one or more flight control computers;

wherein the one or more flight control computers are configured to provide control signals via one electrical bus of the plurality of electrical buses to at least one of the first set of propellers and at least one of the fourth set of propellers; and

wherein the one or more flight control computers are configured to provide control signals via another electrical bus of the plurality of electrical buses to at least one of the third set of propellers and at least one of the second set of propellers.

2. The aircraft of claim 1, wherein the first and third sets of propellers are tiltable between vertical lift and forward propulsion configurations.

3. The aircraft of any preceding claim, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to one propeller of the first set of propellers and one propeller of the fourth set of propellers that are both disposed farthest from the fuselage.

4. The aircraft of any preceding claim, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to one propeller of the first set of propellers and one propeller of the fourth set of propellers that are both disposed nearest to the fuselage.

5. The aircraft of any preceding claim, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to one propeller of the third set of propellers and one propeller of the second set of propellers that are both disposed farthest from the fuselage.

6. The aircraft of any preceding claim, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to one propeller of the third set of propellers and one propeller of the second set of propellers that are both disposed nearest to the fuselage.

7. The aircraft of any preceding claim, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to at least one propeller of the first set of propellers and at least one propeller of the third set of propellers.

8. The aircraft of any preceding claim, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to at least one propeller of the second set of propellers and at least one propeller of the fourth set of propellers.

9. The aircraft of any preceding claim, further comprising:

a plurality of tilt propeller actuators, each configured to tilt one of the electrically powered propellers between vertical lift and forward propulsion configurations, the tilt propeller actuators disposed on opposite sides of the fuselage.

10. The aircraft of claim 9, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to the tilt propeller actuators that are disposed on opposite sides and farthest from the fuselage.

11. The aircraft of any preceding claim, further comprising:

a plurality of flaperon actuators disposed on opposite sides of the fuselage.

12. The aircraft of claim 11, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to the flaperon actuators that are disposed on opposite sides and farthest from the fuselage.

13. The aircraft of any preceding claim, further comprising:

a plurality of ruddervator actuators disposed on opposite sides of the fuselage.

14. The aircraft of claim 13, wherein the one or more flight control computers are configured to provide control signals via a same electrical bus of the plurality of electrical buses to the ruddervator actuators that are disposed on opposite sides and farthest from the fuselage.

15. The aircraft of any one of claims 1-14, wherein a number of propellers in each set of propellers is three.

16. A method for flight control of an aircraft, the aircraft having one or more flight control computers, a first set of electrically powered propellers and a second set of electrically powered propellers disposed on one side of the fuselage, wherein the first set is disposed forward of the second set, a third set of electrically powered propellers and a fourth set of electrically powered propellers disposed on another side of the fuselage, wherein the third set is disposed forward of the fourth set, and a plurality of electrical buses coupled to the one or more flight control computers, the method comprising:

providing control signals, by the one or more flight control computers, via one electrical bus of the plurality of electrical buses to at least one propeller of the first set of propellers and at least one propeller of the fourth set of propellers; and

providing control signals, by the one or more flight control computers, via another electrical bus of the plurality of electrical buses to at least one propeller of the third set of propellers and at least one propeller of the second set of propellers.

17. The method of claim 16, wherein the aircraft is the aircraft according to any one of claims 1 to 15.

18. An aircraft, comprising:

a fuselage;

one or more flight control computers configured to provide control signals;

a plurality of electrical buses coupled to the one or more flight control computers; and

a plurality of tilt propeller actuators, each configured to tilt a respective electrically powered propeller between vertical lift and forward propulsion configurations, the tilt propeller actuators disposed on opposite sides of the fuselage; and

wherein the one or more flight control computers are configured to provide control signals via a first electrical bus of the plurality of electrical buses for a first pair of tilt propeller actuators disposed substantially symmetrically on either side of the fuselage.

19. The aircraft of claim 18, wherein the pair of tilt propeller actuators are disposed on a front side of wings on either side of the aircraft.

20. The aircraft of claim 18 or 19, wherein the one or more flight control computers are configured to provide control signals via a second electrical bus of the plurality of electrical buses for a second pair of tilt propeller actuators disposed on either side of the fuselage, wherein the second pair of tilt propeller actuators comprise a respective tilt propeller actuator of the first pair of tilt propeller actuators and another tilt propeller actuator disposed on another side of the fuselage relative to the respective tilt propeller.