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(54) Title: WING-IN-GROUND EFFECT VEHICLES AND METHODS OF CONTROL

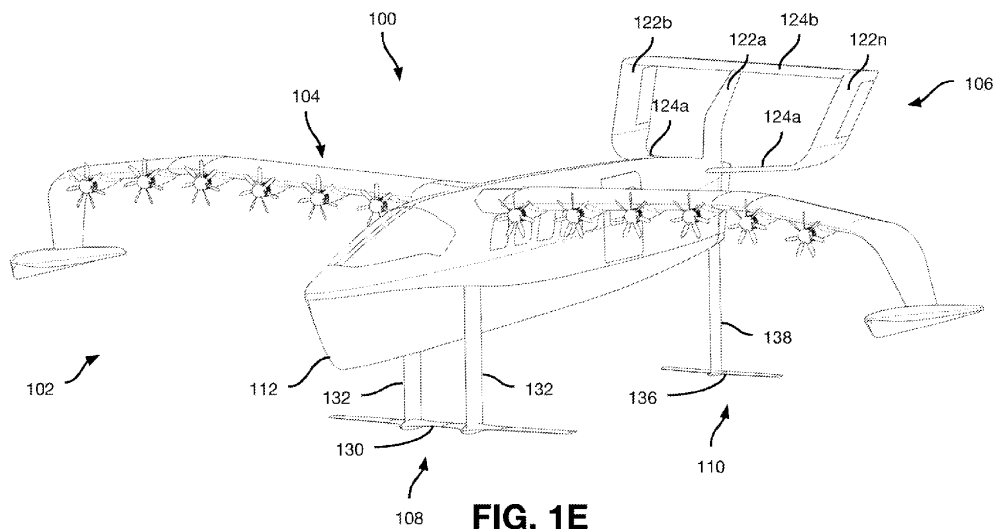


FIG. 1E

(57) Abstract: A craft comprises a hull, a wing, a hydrofoil, and a control system. The wing is configured to generate upwards aero lift as air flows past the wing to facilitate wing-borne flight of the craft. The hydrofoil is configured to generate upwards hydrofoil lift during a first mode of operation as water flows past the hydrofoil to facilitate hydrofoil-borne movement of the craft through the water. While the craft is hydrofoil-borne, the control system is configured to determine the upwards aero lift generated by the wing. The control system is further configured to control the hydrofoil to generate downwards hydrofoil lift to counteract the upwards aero lift generated by the wing that maintains the hydrofoil at least partially submerged in the water while the determined upwards aero lift is below a threshold lift.

[Continued on next page]

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