

(51) International Patent Classification:
B64C 11/00 (2006.01)(21) International Application Number:
PCT/US2010/049451(22) International Filing Date:
20 September 2010 (20.09.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/565,426 23 September 2009 (23.09.2009) US(71) Applicant (for all designated States except US):
AEROVIRONMENT, INC. [US/US]; 181 W. Huntington Drive, Suite 202, Monrovia, CA 91016 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MATUSZESKI, Thaddeus, Benjamin** [US/US]; 4600 Willis Ave #106, Sherman Oaks, CA 91403 (US). **KOCH, Rolland, Mitchell** [US/US]; 1232 Cypress St., Simi Valley, CA 93063 (US). **BERMAN, Scott, Garret** [US/US]; 850 S. Shenandoah #108, Los Angeles, CA 90035 (US). **AB-****DULRAHIM, Mujahid** [US/US]; 7800 Topanga Canyon Blvd., Suite 104, Canoga Park, CA 91304 (US).(74) Agent: **GREENE, Nathan, O.**; Brinks Hofer Gilson & Lione, P.O. Box 10087, Chicago, IL 60610 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: AIRCRAFT POWER MANAGEMENT

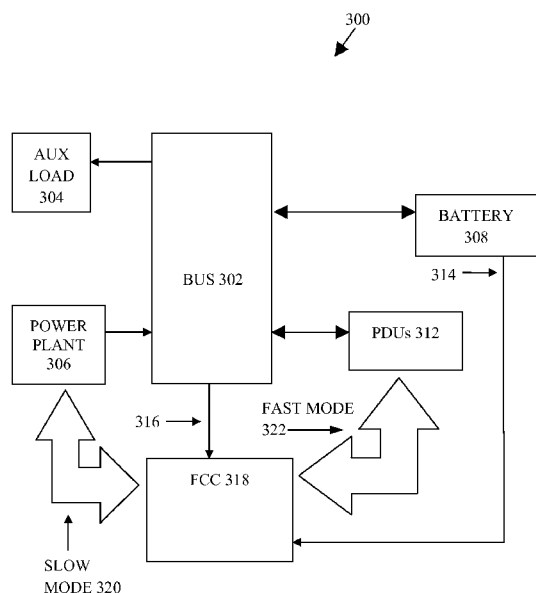


FIG. 3

(57) Abstract: An electric power management system of a vehicle may interconnect a power plant, a propeller drive unit, and a battery via a bus. A controller may direct the operation of the power plant and the propeller drive unit. In a slow control mode, the propeller drive unit may react slowly to small throttle change requests. In the slow control mode, the propeller drive unit may draw power completely or substantially from the power plant. Upon a throttle request to rapidly change propeller drive unit speed more than a threshold amount, the controller may direct that the propeller drive unit quickly obtain the requested speed by drawing power required from the battery in excess of that being generated from the power plant. Subsequently, the controller may direct that the power plant increase power generation to maintain the propeller drive unit at the new speed, and recharge or float the battery.



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, **Published:**
GW, ML, MR, NE, SN, TD, TG).

— *with international search report (Art. 21(3))*