

- (51) **International Patent Classification:**
G05D 1/00 (2006.01) *G05D 1/08* (2006.01)
- (21) **International Application Number:**
PCT/US2020/053416
- (22) **International Filing Date:**
30 September 2020 (30.09.2020)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
16/597,338 09 October 2019 (09.10.2019) US
- (71) **Applicant:** WING AVIATION LLC [US/US]; 1600 Amphitheatre Parkway, Mountain View, California 94043 (US).
- (72) **Inventors:** JENKINS, Kevin; 1600 Amphitheatre Parkway, Mountain View, California 94043 (US). JONES, Brandon; 1600 Amphitheatre Parkway, Mountain View, California 94043 (US).
- (74) **Agent:** CLAASSEN, Cory G. et al.; CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC, 1201 Third Avenue, Suite 3600, Seattle, Washington 98101 (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, BN, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

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

- (54) **Title:** CONTINGENT USE OF COMMANDED SPEED IN LIEU OF SENSED AIRSPEED TO INFORM FLIGHT CONTROL DECISIONS

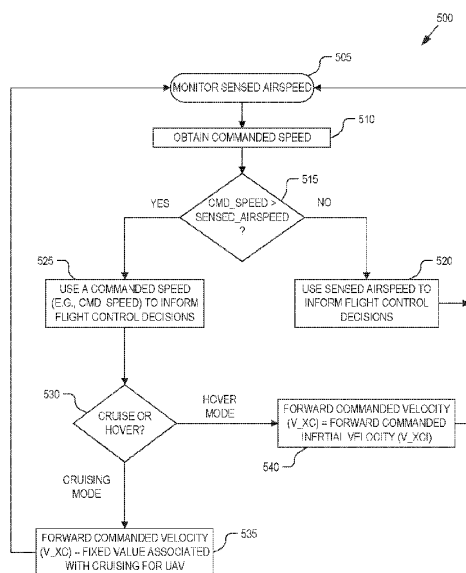


FIG. 5

- (57) **Abstract:** A technique for controlling an unmanned aerial vehicle (UAV) includes monitoring a sensed airspeed of the UAV, obtaining a commanded speed for the UAV, wherein the commanded speed representing a command to fly the UAV at a given speed relative to an airmass or to Earth, and when the commanded speed is greater than the sensed airspeed, using the commanded speed in lieu of the sensed airspeed to inform flight control decisions of the UAV.