

(51) International Patent Classification:
B64B 1/40 (2006.01)(21) International Application Number:
PCT/IL2012/000114(22) International Filing Date:
11 March 2012 (11.03.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/457,363 10 March 2011 (10.03.2011) US(71) Applicant (for all designated States except US): **SHILAT IMAGING LTD** [IL/IL]; 1 Hamada Street, 76703 Rehovot (IL).

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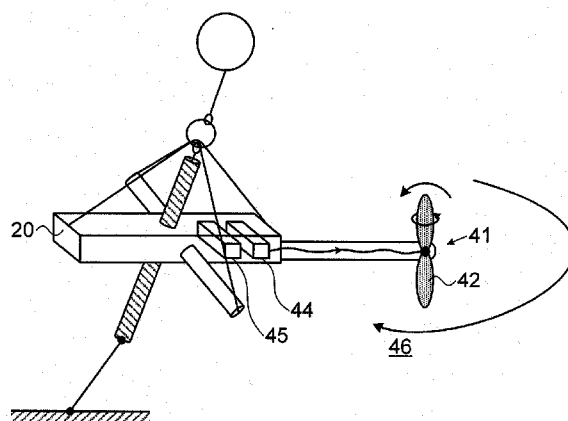
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

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, QA, RO, RS, RU, RW, 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, RW, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: **BALLOON-BORNE PLATFORM STABILIZATION****FIG. 4**

(57) **Abstract:** An aerial balloon system comprising a payload platform suspended from an inflated balloon by means of a balloon cable, and an anchoring cable attaching the platform to an anchor point beneath it. The balloon cable and anchoring cable are attached to the payload platform by means of a connecting element pivotally attached to the platform. The platform may include a servo controlled pitch stabilizing system using the input from a pitch sensor mounted on the platform to control an angular actuator to change the angle which the platform makes with the pivoted connection element. Additionally, the platform may include a servo controlled orientation stabilizing system using the input from an orientation sensor mounted thereon to control the departure of the orientation of the platform from a predetermined orientation. This may be readily accomplished using a variable pitch rotor, the pitch being controlled by the orientation sensor signal.