

Title (en)  
IMPROVED VERTICAL TAKE-OFF AND LANDING VEHICLES

Title (de)  
VERBESSERTE SENKRECHTSTART-FAHRZEUGE

Title (fr)  
VEHICULES DE DECOLLAGE ET D'ATTERRISSAGE VERTICAUX AMELIORES

Publication  
**EP 1478570 A4 20080409 (EN)**

Application  
**EP 03709001 A 20030206**

Priority  
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• US 35527002 P 20020208

Abstract (en)  
[origin: WO03066429A2] A VTOL vehicle including a fuselage with two foldable wings, two tiltable nacelles attached to the wings, a vertical stabilizer, a horizontal stabilizer, and two auxiliary thrusters. Each nacelle contains a system of vanes located at the rear opening thereof, and actuators are provided for extending and retracting the vanes in conjunction with nacelle tilting mechanisms to deflect the airflow over a predetermined range of angles from the horizontal. Each nacelle also contains two rotary engines, each of which directly drives a fan. The fans face each other and operate in counter-rotating directions at the same rotational speed. An alternative embodiment includes two additional nacelles attached to the fuselage instead of having the auxiliary thrusters. A redundant computerized flight control system maintains stability of the vehicle as it transitions from one flight mode to another.

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**B64C 29/00**

IPC 8 full level  
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Citation (search report)  
• [DY] US 5115996 A 19920526 - MOLLER PAUL S [US]  
• [Y] US 5419514 A 19950530 - DUNCAN TERRY A [US]  
• [Y] US 3083936 A 19630402 - RETHORST SCOTT C  
• See also references of WO 03066429A2

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**WO 03066429 A2 20030814**; **WO 03066429 A3 20040205**; AU 2003212957 A1 20030902; AU 2003212957 A8 20030902; EP 1478570 A2 20041124; EP 1478570 A4 20080409

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