

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B64 AIRCRAFT; AVIATION; COSMONAUTICS

B64C AEROPLANES; HELICOPTERS

NOTE

As far as possible, classification is made according to constructional features; classification according to particular kinds of aircraft is normally regarded as being of secondary importance, except in cases where this is considered to be the characteristic feature.

WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
[B64C 35/02](#) covered by [B64C 35/00](#)
- {In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.}

Aircraft structures or fairings

1/00	Fuselages; Constructional features common to fuselages, wings, stabilising surfaces or the like		
1/0009	. {Aerodynamic aspects}		
2001/0018	. {comprising two decks adapted for carrying passengers only}		
2001/0027	. . {arranged one above the other}	1/147	. Windows; Doors; Hatch covers or access panels; Surrounding frame structures; Canopies; Windscreens {accessories therefor, e.g. pressure sensors, water deflectors, hinges, seals, handles, latches, windscreen wipers} (fairings movable in conjunction with undercarriage elements B64C 25/16 ; bomb doors B64D 1/06)
2001/0036	. . {arranged side by side at the same level}	1/1407	. . {Doors; surrounding frames}
2001/0045	. {Fuselages characterised by special shapes}	1/1415	. . . {Cargo doors, e.g. incorporating ramps}
2001/0054	. {Fuselage structures substantially made from particular materials}	1/1423	. . . {Passenger doors}
2001/0063	. . {from wood}	1/143	. . . . {of the plug type}
2001/0072	. . {from composite materials}	1/1438	. . . . {of the sliding type}
2001/0081	. . {from metallic materials}	1/1446	. . . {Inspection hatches (for engine cowls B64D 29/08)}
2001/009	. {comprising decompression panels or valves for pressure equalisation in fuselages or floors}	1/1453	. . . {Drain masts}
1/06	. Frames; Stringers; Longerons {; Fuselage sections}	1/1461	. . . {Structures of doors or surrounding frames}
1/061	. . {Frames}	1/1469	. . . {Doors between cockpit and cabin}
1/062	. . . {specially adapted to absorb crash loads}	1/1476	. . {Canopies; Windscreens or similar transparent elements}
1/063	. . . {Folding or collapsing to reduce overall dimensions, e.g. foldable tail booms}	1/1484	. . . {Windows (B64C 1/1492 takes precedence)}
1/064	. . {Stringers; Longerons}	1/1492	. . . {Structure and mounting of the transparent elements in the window or windscreen}
1/065	. . {Spars}	1/16	. specially adapted for mounting power plant
1/066	. . {Interior liners}	1/18	. Floors
1/067	. . . {comprising means for preventing icing or condensation conditions}	1/20	. . specially adapted for freight
1/068	. . {Fuselage sections}	1/22	. Other structures integral with fuselages to facilitate loading {, e.g. cargo bays, cranes}
1/0683	. . . {Nose cones}	1/24	. Steps mounted on, and retractable within, fuselages
1/0685	. . . {Tail cones}	1/26	. Attaching the wing or tail units or stabilising surfaces
1/069	. . . {Joining arrangements therefor}	1/28	. Parts of fuselage relatively movable to improve pilots view
1/08	. . Geodetic or other open-frame structures	1/30	. Parts of fuselage relatively movable to reduce overall dimensions of aircraft
1/10	. . Bulkheads	1/32	. Severable or jettisonable parts of fuselage facilitating emergency escape
1/12	. . Construction or attachment of skin panels	1/34	. comprising inflatable structural components

1/36	. adapted to receive antennas or radomes	5/02	. Tailplanes
1/38	. Constructions adapted to reduce effects of aerodynamic or other external heating	5/04	. Noseplanes
1/40	. Sound or heat insulation {, e.g. using insulation blankets}	5/06	. Fins (B64C 5/08 takes precedence)
1/403	. . {Arrangement of fasteners specially adapted therefor, e.g. of clips}	5/08	. mounted on, or supported by, wings
1/406	. . . {in combination with supports for lines, e.g. for pipes or cables}	5/10	. adjustable
3/00	Wings (ornithopter wings B64C 33/02)	5/12	. . for retraction against or within fuselage or nacelle
3/10	. Shape of wings	5/14	. . Varying angle of sweep
3/14	. . Aerofoil profile	5/16	. . about spanwise axes
3/141	. . . {Circulation Control Airfoils}	5/18	. . in area
2003/142	. . . {with variable camber along the airfoil chord}	7/00	Structures or fairings not otherwise provided for
2003/143	. . . {comprising interior channels}	7/02	. Nacelles
2003/144	. . . {including a flat surface on either the extrados or intrados}		
2003/145	. . . {comprising 'Gurney' flaps}	9/00	Adjustable control surfaces or members, e.g. rudders (trimming stabilising surfaces B64C 5/10)
2003/146	. . . {comprising leading edges of particular shape}	2009/005	. {Ailerons}
2003/147	. . . {comprising trailing edges of particular shape}	9/02	. Mounting or supporting thereof
2003/148	. . . {comprising protuberances, e.g. for modifying boundary layer flow}	9/04	. with compound dependent movements
2003/149	. . . {for supercritical or transonic flow}	9/06	. with two or more independent movements
3/16	. . Frontal aspect	9/08	. bodily displaceable
3/18	. Spars; Ribs; Stringers	9/10	. one surface adjusted by movement of another, e.g. servo tabs (B64C 9/04 takes precedence; adjusting surfaces of different type or function B64C 9/12)
3/182	. . {Stringers, longerons}	9/12	. surfaces of different type or function being simultaneously adjusted
3/185	. . {Spars}	9/14	. forming slots
3/187	. . {Ribs}	2009/143	. . {comprising independently adjustable elements for closing or opening the slot between the main wing and leading or trailing edge flaps}
3/20	. Integral or sandwich constructions	9/146	. . {at an other wing location than the rear or the front (wings provided with fixed fences or spoilers B64C 3/58)}
3/22	. Geodetic or other open-frame structures	9/16	. . at the rear of the wing
3/24	. Moulded or cast structures	9/18	. . . by single flaps
3/26	. Construction, shape, or attachment of separate skins, e.g. panels	9/20	. . . by multiple flaps
3/28	. Leading or trailing edges attached to primary structures, e.g. forming fixed slots	9/22	. . at the front of the wing
3/30	. comprising inflatable structural components	9/24	. . . by single flap
3/32	. specially adapted for mounting power plant	9/26	. . . by multiple flaps
3/34	. Tanks constructed integrally with wings, e.g. for fuel or water	9/28	. . by flaps at both the front and rear of the wing operating in unison
3/36	. Structures adapted to reduce effects of aerodynamic or other external heating	9/30	. Balancing hinged surfaces, e.g. dynamically
3/38	. Adjustment of complete wings or parts thereof	9/32	. Air braking surfaces
3/385	. . {Variable incidence wings}	9/323	. . {associated with wings}
3/40	. . Varying angle of sweep	9/326	. . {associated with fuselages}
3/42	. . Adjusting about chordwise axes	9/34	. collapsing or retracting against or within other surfaces or other members
3/44	. . Varying camber	9/36	. . the members being fuselages or nacelles
2003/445	. . . {by changing shape according to the speed, e.g. by morphing}	9/38	. Jet flaps
3/46	. . . by inflatable elements	11/00	Propellers, e.g. of ducted type; Features common to propellers and rotors for rotorcraft
3/48	. . . by relatively-movable parts of wing structures		NOTE
3/50	. . . by leading or trailing edge flaps		Documents classified in B64C 11/001 - B64C 11/008 which also contain relevant information, covered by other subgroups of B64C 11/00 , are also classified in the appropriate subgroup of B64C 11/00
3/52	. . Warping		
3/54	. . Varying in area	11/001	. {Shrouded propellers}
2003/543	. . . {by changing shape according to the speed, e.g. by morphing}	11/002	. {Braking propellers, e.g. for measuring the power output of an engine}
3/546	. . . {by foldable elements}		
3/56	. . Folding or collapsing to reduce overall dimensions of aircraft		
3/58	. provided with fences or spoilers (adjustable for control purposes B64C 9/00)		
5/00	Stabilising surfaces		

- 11/003 . {Variable-diameter propellers; Mechanisms therefor}
- 11/005 . {Spiral-shaped propellers}
- 11/006 . {Paddle wheels}
- 11/007 . {Propulsive discs, i.e. discs having the surface specially adapted for propulsion purposes}
- 11/008 . {characterised by vibration absorbing or balancing means}
- 11/02 . Hub construction
- 11/04 . . Blade mountings
- 11/06 . . . for variable-pitch blades
- 11/065 {variable only when stationary}
- 11/08 . . . for non-adjustable blades
- 11/10 rigid
- 11/12 flexible
- 11/14 . . Spinners
- 11/16 . Blades
- 11/18 . . Aerodynamic features
- 11/20 . . Constructional features
- 11/205 . . . {for protecting blades, e.g. coating}
- 11/22 . . . Solid blades
- 11/24 . . . Hollow blades
- 11/26 . . . Fabricated blades
- 11/28 . . . Collapsible or foldable blades
- 11/30 . Blade pitch-changing mechanisms
- NOTE**
- Groups [B64C 11/301](#), [B64C 11/303](#), [B64C 11/305](#) and [B64C 11/306](#) take precedence over [B64C 11/32](#), [B64C 11/38](#) and [B64C 11/44](#)
- 11/301 . . {characterised by blade position indicating means}
- 11/303 . . {characterised by comprising a governor}
- 11/305 . . {characterised by being influenced by other control systems, e.g. fuel supply}
- 11/306 . . {specially adapted for contrarotating propellers}
- 11/308 . . . {automatic}
- 11/32 . . mechanical
- 11/325 . . . {comprising feathering, braking or stopping systems}
- 11/34 . . . automatic
- 11/343 {actuated by the centrifugal force or the aerodynamic drag acting on the blades}
- 11/346 {actuated by the centrifugal force or the aerodynamic drag acting on auxiliary masses or surfaces}
- 11/36 . . . non-automatic
- 11/38 . . fluid, e.g. hydraulic
- 11/385 . . . {comprising feathering, braking or stopping systems}
- 11/40 . . . automatic
- 11/42 . . . non-automatic
- 11/44 . . electric
- 11/46 . Arrangements of, or constructional features peculiar to, multiple propellers ([B64C 11/306](#) takes precedence)
- 11/48 . . Units of two or more coaxial propellers
- 11/50 . . Phase synchronisation between multiple propellers
- 13/00 Control systems or transmitting systems for actuating flying-control surfaces, lift-increasing flaps, air brakes, or spoilers**
- 13/02 . Initiating means
- 13/04 . . actuated personally
- 13/042 . . . {operated by hand}
- 13/0421 {control sticks for primary flight controls}
- 13/0423 {yokes or steering wheels for primary flight controls}
- 13/0425 {for actuating trailing or leading edge flaps, air brakes or spoilers}
- 13/0427 {for actuating trim}
- 13/044 . . . {operated by feet, e.g. pedals}
- 13/06 . . . adjustable to suit individual persons
- 13/08 . . . Trimming zero positions
- 13/10 . . . comprising warning devices
- 13/12 . . . Dual control apparatus
- 13/14 . . . lockable
- 13/16 . . actuated automatically, e.g. responsive to gust detectors
- 13/18 . . . using automatic pilot
- 13/20 . . . using radiated signals
- 13/22 . . . readily revertible to personal control
- 13/24 . Transmitting means
- 13/26 . . without power amplification or where power amplification is irrelevant
- 13/28 . . . mechanical
- 13/30 using cable, chain, or rod mechanisms
- 13/32 using cam mechanisms
- 13/34 using toothed gearing
- 13/341 {having duplication or stand-by provisions}
- 13/343 {overriding of personal controls; with automatic return to inoperative position}
- 13/345 {with artificial feel}
- 13/36 . . . fluid
- 13/38 . . with power amplification
- 13/40 . . . using fluid pressure
- 13/42 having duplication or stand-by provisions
- 13/44 overriding of personal controls; with automatic return to inoperative position
- 13/46 with artificial feel
- 13/48 characterised by the fluid being gaseous
- 13/50 . . . using electrical energy
- 13/503 {Fly-by-Wire}
- 13/504 {using electro-hydrostatic actuators [EHA's]}
- 13/505 {having duplication or stand-by provisions}
- 13/506 {overriding of personal controls; with automatic return to inoperative position}
- 13/507 {with artificial feel}
- 15/00 Attitude, flight direction, or altitude control by jet reaction**
- 15/02 . the jets being propulsion jets
- 15/12 . . the power plant being tiltable
- 15/14 . the jets being other than main propulsion jets ([jet flaps B64C 9/38](#))
- 17/00 Aircraft stabilisation not otherwise provided for**
- 17/02 . by gravity or inertia-actuated apparatus
- 17/04 . . by pendular bodies
- 17/06 . . by gyroscopic apparatus
- 17/08 . by ballast supply or discharge
- 17/10 . Transferring fuel to adjust trim
- 19/00 Aircraft control not otherwise provided for**

19/02	. Conjoint controls	25/22	. . . . . fluid
		25/24	. . . . . electric
		25/26	. . . . . Control or locking systems therefor
		25/28	. . . . . with indicating or warning devices
		25/30	. . . . . emergency actuated
		25/32	. characterised by elements which contact the ground or similar surface (arrester hooks B64C 25/68)
		2025/325	. . {specially adapted for helicopters}
		25/34	. . wheeled type, e.g. multi-wheeled bogies
		2025/345	. . . {Multi-wheel bogies having one or more steering axes}
		25/36	. . . Arrangements or adaptations of wheels, tyres or axles in general
		25/38	. . endless-track type
		25/40	. . the elements being rotated before touch-down
		25/405	. . {Powered wheels, e.g. for taxiing}
		25/42	. . Arrangement or adaptation of brakes
		25/423	. . . {Braking devices acting by reaction of gaseous medium}
		25/426	. . . {Braking devices providing an automatic sequence of braking}
		25/44	. . . Actuating mechanisms
		25/445	. . . . {Brake regulators for preventing somersaulting}
		25/46	. . . . Brake regulators for preventing skidding or aircraft somersaulting
		25/48	. . . . differentially operated for steering purposes
		25/50	. . Steerable undercarriages; Shimmy-damping
		25/505	. . . {Shimmy damping}
		25/52	. . Skis or runners
		25/54	. . Floats
		25/56	. . . inflatable
		25/58	. . Arrangements or adaptations of shock-absorbers or springs (shimmy-dampers B64C 25/50)
		25/60	. . . Oleo legs
		25/62	. . . Spring shock-absorbers; Springs
		25/64	. . . . using rubber or like elements
		25/66	. . Convertible alighting gear; Combinations of different kinds of ground or like engaging elements
		25/68	. . Arrester hooks
<u>Influencing air flow over aircraft surfaces, not otherwise provided for</u>			
21/00	Influencing air flow over aircraft surfaces by affecting boundary layer flow		
21/01	. Boundary layer ingestion [BLI] propulsion		
21/02	. by use of slot, ducts, porous areas or the like		
21/025	. . {for simultaneous blowing and sucking}		
21/04	. . for blowing		
21/06	. . for sucking (BLI propulsion B64C 21/01)		
21/08	. . adjustable		
21/10	. using other surface properties, e.g. roughness		
23/00	Influencing air flow over aircraft surfaces, not otherwise provided for		
23/005	. {by other means not covered by groups B64C 23/02 - B64C 23/08 , e.g. by electric charges, magnetic panels, piezoelectric elements, static charges or ultrasounds}		
23/02	. by means of rotating members of cylindrical or similar form		
23/04	. by generating shock waves		
23/06	. by generating vortices		
23/065	. . {at the wing tips}		
23/069	. . . {using one or more wing tip airfoil devices, e.g. winglets, splines, wing tip fences or raked wingtips}		
23/072	. . . . {the wing tip airfoil devices being moveable in their entirety}		
23/076	. . . . {the wing tip airfoil devices comprising one or more separate moveable members thereon affecting the vortices, e.g. flaps}		
23/08	. using Magnus effect		
25/00	Alighting gear (air-cushion alighting gear B60V 3/08)		
25/001	. {Devices not provided for in the groups B64C 25/02 - B64C 25/68 }		
2025/003	. . {Means for reducing landing gear noise, or turbulent flow around it, e.g. landing gear doors used as deflectors}		
2025/005	. . {Tail skids for fuselage tail strike protection on tricycle landing gear aircraft}		
2025/006	. . {Landing gear legs comprising torque arms}		
2025/008	. . {Comprising means for modifying their length, e.g. for kneeling, for jumping, or for leveling the aircraft}		
25/02	. Undercarriages		
25/04	. . Arrangement or disposition on aircraft		
25/06	. . fixed		
25/08	. . non-fixed, e.g. jettisonable		
25/10	. . . retractable, foldable, or the like		
25/12	. . . . sideways		
2025/125	. . . . . {into the fuselage, e.g. main landing gear pivotally retracting into or extending out of the fuselage}		
25/14	. . . . fore-and-aft		
25/16	. . . . Fairings movable in conjunction with undercarriage elements		
25/18	. . . . Operating mechanisms		
25/20	. . . . . mechanical		
<u>Aircraft kinds or components not otherwise provided for</u>			
27/00	Rotorcraft; Rotors peculiar thereto		
27/001	. {Vibration damping devices}		
2027/002	. . {mounted between the rotor drive and the fuselage}		
2027/003	. . {mounted on rotor hub, e.g. a rotary force generator}		
2027/004	. . {using actuators, e.g. active systems}		
2027/005	. . {using suspended masses}		
27/006	. {Safety devices}		
27/007	. . {adapted for detection of blade cracks}		
27/008	. {Rotors tracking or balancing devices}		
27/02	. Gyroplanes		
27/021	. . {Rotor or rotor head construction (for helicopters B64C 27/32)}		
27/022	. . . {Devices for folding or adjusting the blades}		
27/023	. . . {Construction of the blades; Coating of the blades}		
27/024	. . . {Devices for shifting the rotor axis}		

- 27/025 . . . {Rotor drives, in particular for taking off; Combination of autorotation rotors and driven rotors}
- 27/026 . . . {Devices for converting a fixed wing into an autorotation rotor and viceversa}
- 27/027 . . {Control devices using other means than the rotor}
- 27/028 . . {Other constructional elements; Rotor balancing}
- 27/04 . Helicopters
- 27/06 . . with single rotor
- 27/08 . . with two or more rotors
- 27/10 . . . arranged coaxially
- 27/12 . . Rotor drives
- 2027/125 . . . {including toroidal transmissions, e.g. of the CVT type}
- 27/14 . . . Direct drive between power plant and rotor hub
- 27/16 . . . Drive of rotors by means, e.g. propellers, mounted on rotor blades
- 27/18 the means being jet-reaction apparatus
- 27/20 . Rotorcraft characterised by having shrouded rotors, e.g. flying platforms
- 27/22 . Compound rotorcraft, i.e. aircraft using in flight the features of both aeroplane and rotorcraft
- 27/24 . . with rotor blades fixed in flight to act as lifting surfaces
- 27/26 . . characterised by provision of fixed wings
- 27/28 . . with forward-propulsion propellers pivotable to act as lifting rotors
- 27/30 . . with provision for reducing drag of inoperative rotor
- 27/32 . Rotors
- 27/322 . . {Blade travel limiting devices, e.g. droop stops}
- 27/325 . . {Circulation-control rotors}
- 27/327 . . {Retention means relieving the stress from the arm, e.g. tie-bars}
- 27/33 . . having flexing arms
- 27/35 . . having elastomeric joints
- 27/37 . . having articulated joints
- 27/39 . . . with individually articulated blades, i.e. with flapping or drag hinges
- 27/41 . . . with flapping hinge or universal joint, common to the blades
- 27/43 see-saw type, i.e. two-bladed rotor
- 27/45 . . . with a feathering hinge only
- 27/46 . . Blades
- 27/463 . . . {Blade tips}
- 27/467 . . . Aerodynamic features
- 27/473 . . . Constructional features
- 2027/4733 {Rotor blades substantially made from particular materials}
- 2027/4736 {from composite materials}
- 27/48 Root attachment to rotor head
- 27/50 Blades foldable to facilitate stowage of aircraft
- 27/51 . Damping of blade movements
- 27/52 . Tilting of rotor bodily relative to fuselage (of see-saw type construction [B64C 27/43](#))
- 27/54 . Mechanisms for controlling blade adjustment or movement relative to rotor head, e.g. lag-lead movement
- 27/56 . . characterised by the control initiating means, e.g. manually actuated
- 27/57 . . . automatic or condition responsive, e.g. responsive to rotor speed, torque or thrust
- 27/58 . . Transmitting means, e.g. interrelated with initiating means or means acting on blades ([means acting on blades B64C 27/72](#))
- 27/59 . . . mechanical
- 27/605 including swash plate, spider or cam mechanisms
- 27/615 including flaps mounted on blades
- 27/625 including rotating masses or servo rotors
- 27/635 specially for controlling lag-lead movements of blades
- 27/64 . . . using fluid pressure, e.g. having fluid power amplification
- 27/68 . . . using electrical energy, e.g. having electrical power amplification
- 27/72 . . Means acting on blades
- 2027/7205 . . . {on each blade individually, e.g. individual blade control [IBC]}
- 2027/7211 {without flaps}
- 2027/7216 {using one actuator per blade}
- 2027/7222 {using airfoil deformation}
- 2027/7227 {using blowing slots actuated by piezoelectric actuators}
- 2027/7233 {using higher-harmonic control [HHC]}
- 2027/7238 {by controlling existing swash plate actuators}
- 2027/7244 {by using dedicated actuators}
- 2027/725 {using jets controlled by piezoelectric actuators}
- 2027/7255 {using one or more swash plates}
- 2027/7261 {with flaps}
- 2027/7266 {actuated by actuators}
- 2027/7272 {of the electro-hydraulic type}
- 2027/7277 {of the magnetostrictive type}
- 2027/7283 {of the piezoelectric type}
- 2027/7288 {of the memory shape type}
- 2027/7294 {actuated mechanically, e.g. by means of linkages}
- 27/78 . . in association with pitch adjustment of blades of anti-torque rotor
- 27/80 . . for differential adjustment of blade pitch between two or more lifting rotors
- 27/82 . characterised by the provision of an auxiliary rotor or fluid-jet device for counter-balancing lifting rotor torque or changing direction of rotorcraft
- 2027/8209 . . {Electrically driven tail rotors}
- 2027/8218 . . {wherein the rotor or the jet axis is inclined with respect to the longitudinal horizontal or vertical plane of the helicopter}
- 2027/8227 . . {comprising more than one rotor}
- 2027/8236 . . {including pusher propellers}
- 2027/8245 . . {using air jets}
- 2027/8254 . . {Shrouded tail rotors, e.g. "Fenestron" fans}
- 2027/8263 . . {comprising in addition rudders, tails, fins, or the like}
- 2027/8272 . . . {comprising fins, or movable rudders}
- 2027/8281 . . . {comprising horizontal tail planes}
- 2027/829 . . . {comprising a V-tail units}
- 29/00 **Aircraft capable of landing or taking-off vertically, e.g. vertical take-off and landing [VTOL] aircraft (rotorcraft [B64C 27/00](#))**

29/0008	. {having its flight directional axis horizontal when grounded}	39/02	. characterised by special use
29/0016	. . {the lift during taking-off being created by free or ducted propellers or by blowers}	39/022	. . {Tethered aircraft}
29/0025	. . . {the propellers being fixed relative to the fuselage}	39/024	. . {of the remote controlled vehicle type, i.e. RPV}
29/0033	. . . {the propellers being tiltable relative to the fuselage}	39/026	. . {for use as personal propulsion unit}
29/0041	. . {the lift during taking-off being created by jet motors}	39/028	. . {Micro-sized aircraft}
29/005	. . . {the motors being fixed relative to the fuselage}	39/029	. {Asymmetrical aircraft}
29/0058	. . . {with vertical jet}	39/04	. having multiple fuselages or tail booms
29/0066	. . . {with horizontal jet and jet deflector}	39/06	. having disc- or ring-shaped wings
29/0075	. . . {the motors being tiltable relative to the fuselage}	39/062	. . {having annular wings}
29/0083	. . {the lift during taking-off being created by several motors of different type}	39/064	. . . {with radial airflow}
29/0091	. {Accessories not provided for elsewhere}	39/066	. . {having channel wings}
29/02	. having its flight directional axis vertical when grounded	39/068	. . {having multiple wings joined at the tips}
29/04	. . characterised by jet-reaction propulsion	39/08	. having multiple wings
30/00	Supersonic type aircraft	39/10	. All-wing aircraft
31/00	Aircraft intended to be sustained without power plant; Powered hang-glider-type aircraft; Microlight-type aircraft	2039/105	. . {of blended wing body type}
31/02	. Gliders, e.g. sailplanes (hang-gliders B64C 31/028)	39/12	. Canard-type aircraft
31/024	. . with auxiliary power plant		
31/028	. Hang-glider-type aircraft; Microlight-type aircraft		
31/0285	. . {Safety devices}		
31/032	. . having delta shaped wing		
31/036	. . having parachute-type wing		
31/04	. Man-powered aircraft		
31/06	. Kites (toy aspects A63H 27/08 ; airborne towed targets, e.g. kites F41J 9/10)		
2031/065	. . {of inflatable wing type}		
33/00	Ornithopters		
33/02	. Wings; Actuating mechanisms therefor		
33/025	. . {the entire wing moving either up or down}		
35/00	Flying-boats; Seaplanes		
35/001	. {with means for increasing stability on the water}		
35/002	. . {using adjustable auxiliary floats}		
35/003	. . {using auxiliary floats at the wing tips}		
35/005	. {with propellers, rudders or brakes acting in the water}		
35/006	. {with lift generating devices}		
35/007	. {Specific control surfaces therefor}		
35/008	. {Amphibious sea planes}		
37/00	Convertible aircraft		
37/02	. Flying units formed by separate aircraft (towing B64D 3/00 ; aircraft transported by aircraft B64D 5/00 ; air-refuelling B64D 39/00)		
39/00	Aircraft not otherwise provided for		
39/001	. {Flying saucers}		
39/003	. {with wings, paddle wheels, bladed wheels, moving or rotating in relation to the fuselage (rotorcraft B64C 27/00 ; ornithopters B64C 33/00)}		
39/005	. . {about a horizontal transversal axis}		
39/006	. . {about a vertical axis}		
39/008	. . {about a longitudinal axis}		
		99/00	Subject matter not provided for in other groups of this subclass
		2203/00	Flying model aircraft, flying toy aircraft
		2211/00	Modular constructions of airplanes or helicopters
		2220/00	Active noise reduction systems
		2230/00	Boundary layer controls
		2230/02	. by using acoustic waves generated by transducers
		2230/04	. by actively generating fluid flow
		2230/06	. by explicitly adjusting fluid flow, e.g. by using valves, variable aperture or slot areas, variable pump action or variable fluid pressure
		2230/08	. by influencing fluid flow by means of surface cavities, i.e. net fluid flow is null
		2230/10	. by influencing fluid flow by heating using other means than combustion
		2230/12	. by using electromagnetic tiles, fluid ionizers, static charges or plasma
		2230/14	. achieving noise reductions
		2230/16	. by blowing other fluids over the surface than air, e.g. He, H, O ₂ or exhaust gases
		2230/18	. by using small jets that make the fluid flow oscillate
		2230/20	. by passively inducing fluid flow, e.g. by means of a pressure difference between both ends of a slot or duct
		2230/22	. by using a surface having multiple apertures of relatively small openings other than slots
		2230/24	. by using passive resonance cavities, e.g. without transducers
		2230/26	. by using rib lets or hydrophobic surfaces
		2230/28	. at propeller or rotor blades