

Title (en)

DE-ICING AIRCRAFT USING MICROWAVES

Title (de)

ENTEISUNG VON FLUGZEUGEN MIT MIKROWELLEN

Title (fr)

DEGIVRAGE D'AERONEFS AU MOYEN DE MICRO-ONDES

Publication

EP 1028892 A1 20000823 (DE)

Application

EP 98959801 A 19981026

Priority

- DE 19750198 A 19971113
- EP 9806784 W 19981026

Abstract (en)

[origin: DE19750198A1] Structures critical to lift generation and vulnerable to icing, comprise aircraft-qualified dielectric and composites, transparent to electromagnetic radiation above 20 GHz. Pulsed or continuous microwave sources carried, generate outside avionic wavebands, feeding automatically switched waveguides to antennae sited near critical structures, radiating power levels continuously or in accordance with weather conditions and criticality, to prevent condensation of water droplets. High-mode, flexible waveguides, couple with constant power cross section, planar homogenous antennae with controlled power delivery. Heating is induced instantly and uniformly, in the composite structure and in any surface icing. Microwave sources are redundantly interconnected by waveguides, with bypass switching to assure failure tolerance.

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B64D 15/12

IPC 8 full level

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CPC (source: EP US)

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