

Title (en)

SYSTEMS AND METHODS FOR CONFIGURING AIRCRAFT TO MEET PERFORMANCE GOALS AND SHOCK WAVE DISTURBANCE CONSTRAINTS

Title (de)

SYSTEME UND VERFAHREN ZUR KONFIGURATION EINES FLUGZEUGS ZUM ERFÜLLEN VON LEISTUNGSZIELEN UND STOSSWELLENSTÖRUNGSBESCHRÄNKUNGEN

Title (fr)

SYSTEMES ET PROCEDES DE CONFIGURATION D'UN AERONEF EN VUE D'ATTEINDRE DES OBJECTIFS DE RENDEMENT ET DE RESPECTER DES CONTRAINTES DE PERTURBATIONS DUES AUX ONDES DE CHOC

Publication

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Application

EP 04800783 A 20041104

Priority

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Abstract (en)

[origin: WO2005047102A2] An aircraft for low sonic boom supersonic flight conditions includes a wing with one or more areas of far-field expansion ahead of areas of far-field compression. An equivalent area distribution goal curve is scaled to account for the equivalent area reduction due to excursions below to goal curve. A relaxed constraint allows the equivalent area distribution of the aircraft to be at or below the equivalent area distribution goal curve to enable multiple parameters to be configured to meet the equivalent area distribution constraint, as well as other constraints. The shape of a reflexed portion of the airfoil on the underside of the wing, and a corresponding shape for the upper surface of the nacelle provide favorable interaction between the wing and the nacelle.

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