

Title

“Development of multifunctional materials and structures with improved capacities in aerodynamics, icing, acoustics or electromagnetism for civil and military aircrafts”

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Abstract

For several years, either in the frame of research projects (French, European), either for direct application on aircraft programs, Dassault Aviation has developed multifunctional materials and structures with specific benefits in aerodynamics, icing, acoustic or electromagnetisms. The main challenge is to get the best compromise between the high functional performances desired and the mechanical and aeronautic environment resistance needed for the application. This presentation will review some examples of development performed in the recent years for aircraft aerodynamics improvement, icing protection, acoustics and new antenna radomes.