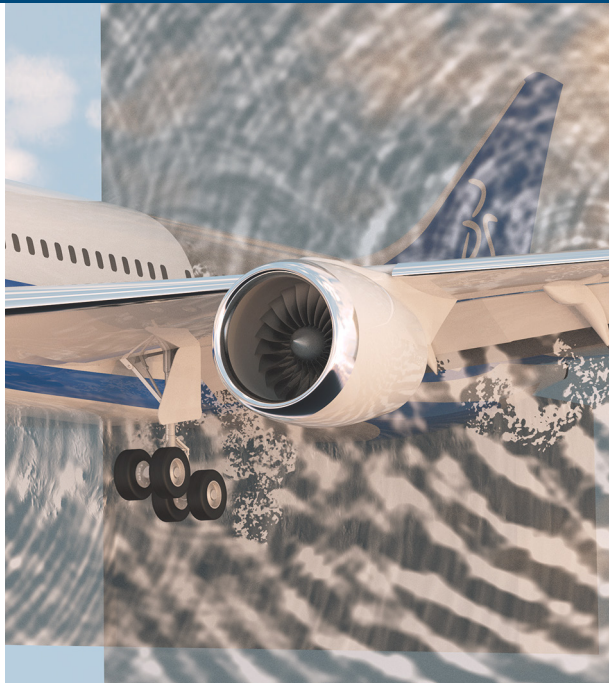


SOUND EFFECTS: AIRPLANE TAKE OFFS AND LANDINGS ARE ABOUT TO BECOME A LITTLE BIT QUIETER

CHALLENGES

Aircraft community noise has become a real concern as air travel continues to grow and planes are increasingly flying at lower altitudes and closer to major population centers. Since planes have to meet strict community noise and environmental protection regulations, it is important to understand how both aircraft noise is generated and how it is perceived on the ground.

Key question: How can aircraft manufacturers efficiently reduce aircraft noise to meet acoustic certifications and minimize the impact on the community?



BENEFITS OF SIMULATION

SIMULIA fluids solutions from Dassault Systèmes allow engineers to identify noise sources early in the design process so they can mitigate their propagation in realistic flight conditions, while reducing physical prototyping and certification costs.

Highlights include:

- Enable analysis of all aircraft noise sources early in the design process to include noise targets in preliminary and detail design phases
- Identify potential for noise reduction concepts for both tonal and broadband noise
- Meet certification and airport targets
- Achieve quieter aircrafts while maintaining the same or better overall performance