

Aeronautical Engineering Capabilities

The aeronautical engineering capabilities provided by Engineering Systems Inc. furnishes clients with experts in the fields of aircraft accident reconstruction, aircraft performance and flight dynamics, and aircraft icing analyses.

Aircraft Accident Reconstruction

Radar Data Analysis

Flight Data Recorder Analysis

Flight Path Reconstruction

Flight Simulation

Aircraft Performance Analysis

Flight Control System Analysis

Structural Analysis

Flight Test Evaluations

Cockpit Voice Recorder Analysis

Flight Testing

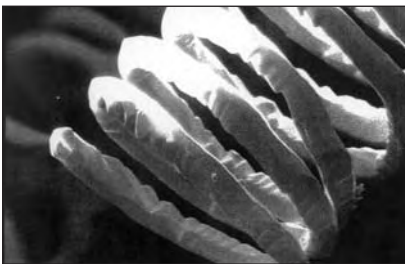
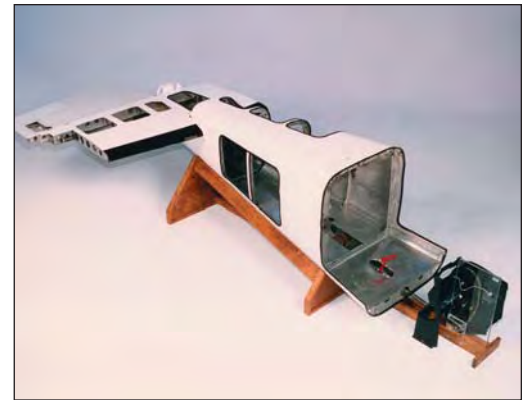
Turbine Engine Performance

Aircraft In-flight Breakup Analysis

Midair Collision Analysis

Structural Failure Analysis

Stability and Control Analysis



Aircraft Icing

Determination of Ice Buildup on Aircraft Structures

Performance Degradation Due to Ice Formation

Aircraft Anti-icing and Deicing

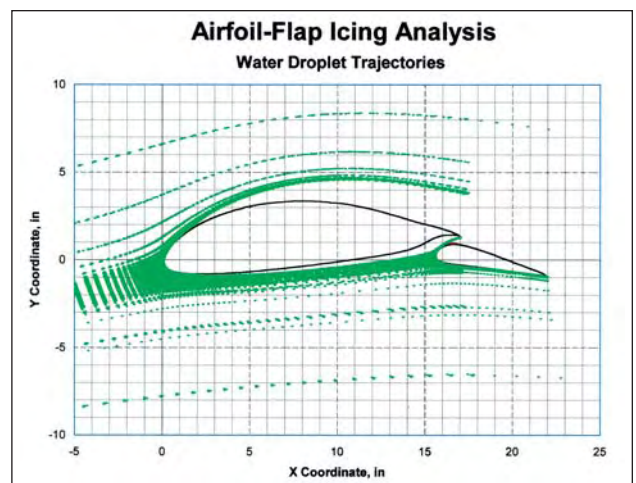
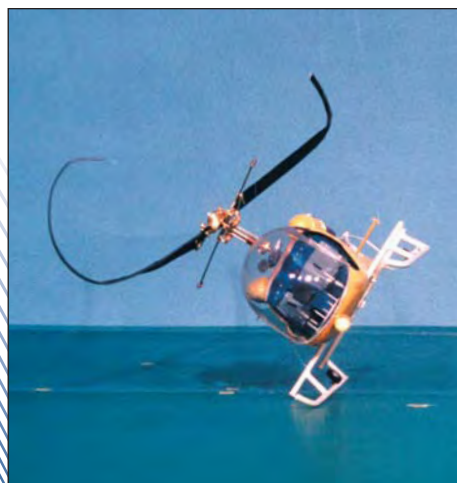
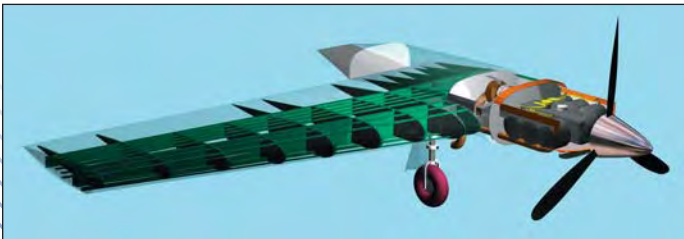
Trajectories of Ice Shed from

Aircraft Structures

Flight Testing of Artificial

Ice Shapes

System Performance



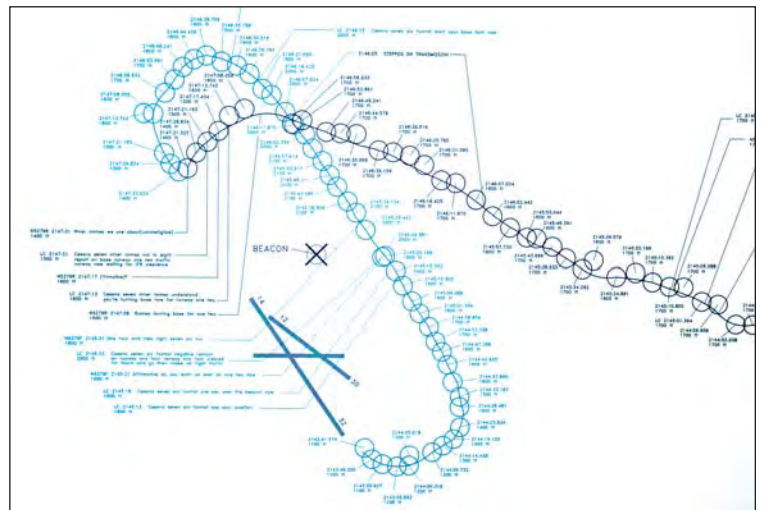
Aeronautical Engineering Capabilities

Engineering Systems Inc. has performed numerous aircraft accident analyses for a variety of clients ranging from airlines to aircraft manufacturers to maintenance facilities. The firm has played a leading role in the analysis of almost all major air disasters in this country and worldwide.

Engineering Systems Inc. has world-class expertise in determining aircraft maneuvers from radar data, analyzing flight data and cockpit voice recorder information, and aircraft icing issues. ESI aeronautical and mechanical engineers have taught at major universities and are widely published on topics related to aircraft accident reconstruction.



Engineering Systems Inc. has demonstrated the capability to perform all aspects of aircraft accident reconstruction and analysis. We have been called upon to secure radar data on the day of an accident. We have hands-on experience in wreckage inspection and documentation. We have piloting experience to go along with the math and physics to give a practical view to all of our analyses. Our unparalleled technical expertise enables us to pinpoint the cause of an accident in even the most difficult cases. Finally, we know how to present the results of our complex technical analysis in ways that a jury can understand and appreciate.



Providing Clear Answers Through Insights and Multidisciplinary Excellence

Assignments vary from national disasters to simple evaluations. We address complex issues with a multidisciplinary approach and the sharing of knowledge. Add to that research specialists, laboratories, test facilities, first-class modeling and graphics, and you have the best advice and support available in this industry...right here at ESI.

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