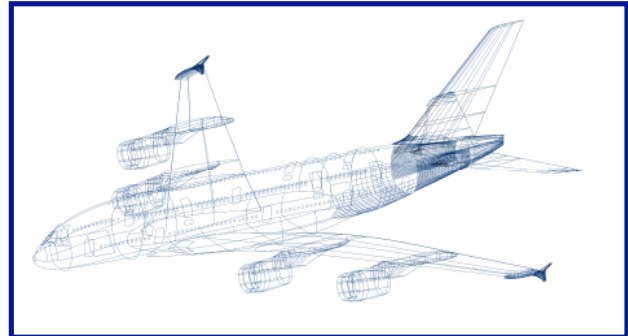


Aircraft Material and Process Design Expertise

Rockwell International

Material and process considerations are often addressed late in a design process. This is due to specialized knowledge in these areas not being readily available to the design engineer, who cannot be expected to be a specialist in all areas of materials. The usual approach has been to have a specialist sign-off on the design later, which can result in expensive time and resource redesign, when a material or process problem is detected too late.



To help solve many of these design problems, Rockwell International's Autonetics Sensors and Aircraft Systems Division decided to use knowledge automation systems. Many systems have been developed including those for:

- ◆ Corrosion Protection
- ◆ Adhesive Selection
- ◆ Encapsulate Selection
- ◆ Conformable Coating Selection
- ◆ Heat Treatment of Metallic Materials
- ◆ Selection of Soldering Processes

These systems, developed in collaboration with domain specialists, make this “project-rolling” knowledge widely available to the Rockwell design engineers. The engineers using the systems have potential problems indicated before designs are finalized, and are educated by the systems in the process.