



Composites Manufacturer Saves 300 Person-Days Annually, Generates Answers It Can Trust with SEER-DFM

ATK Composite Structures

In the composites manufacturing industry, the F-35 Joint Strike Fighter (JSF) is king. The fighter plane requires a massive upper wing skin that ranks as the largest composite structure on any aircraft in the world.

ATK Composite Structures, based in Clearfield, Utah, is a top producer of composite structures for the Joint Strike Fighter, as well as for other military and commercial applications such as rocket motors and F-22 horizontal stabilators. For more than 40 years, the company has been a leading supplier of mission-critical composite structures to major aerospace and defense organizations like Lockheed Martin and Vought Aircraft Industries. A division of Alliant Holdings LLC, ATK Composite Structures employs 1,100 employees in five manufacturing facilities in Utah, California, Mississippi and Alabama.

As a major composites subcontractor, ATK prepares approximately 80-90 proposals per year. Rapid, consistent estimating is essential for enabling the company to complete quality proposals at such a high volume. Previously, ATK used a cumbersome bottoms-up estimating approach that required spreadsheets with hundreds of lines and, unfortunately, relied too heavily on the skill and experience of each estimator. This approach ultimately affected the consistency of estimates. Plus, each proposal typically required up to five full workdays and a team of nine to complete.

Understanding the cost impact of decisions – in minutes

ATK turned to Galorath's SEER-DFM with Composites Plug-in, a tool that emerged in response to the industry's Composites Affordability Initiative (CAI). ATK chose SEER-DFM specifically for the Composites Module, which offers 25 existing and emerging

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composite fabrication and assembly processes, as well as some state-of-the-art metal processes. The composites-specific tool enables engineers and analysts to understand the impact of critical cost elements on design features and process parameters specific to the composites environment. As a result, designers working on new concepts can see the cost impact of specific decisions—in minutes.

“The Composites Affordability Initiative was established by our peers, using standard hours,” explained Mike Franklin, Cost Estimating Analyst V for ATK. “With SEER-DFM’s Composites Module, we can take those standard timeframes and analyze our actual performance to get estimates based on how we actually do business.”



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Since bringing in SEER-DFM four years ago, ATK has completed about 240 proposals. During that time, the tool has allowed ATK to streamline its proposal process significantly. Previously, the estimating phase demanded repeated back-and-forth between the project team and management to arrive at answers everyone agreed on. Even then, with different people collaborating on projects each time, there was little consistency from proposal to proposal.

Knowledge bases support consistent, reliable estimates

By contrast, SEER-DFM provides a consistent, reliable means of estimating by tapping into extensive knowledge bases. These powerful knowledge bases draw on the past experiences of hundreds of organizations, bringing greater speed and confidence to each estimate. Over

the years, Galorath has built the knowledge bases with historical project data from public and private sources, and updates them regularly. This supports ATK in building more objective, reliable, repeatable and traceable estimates.

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element and put the knowledge base to it, adjust a little, and it generates your number for you. It’s literally that quick.”

ATK begins each estimate at the engineering level, giving development and manufacturing engineers access to the application right on their desktops. SEER’s ease of use has allowed all users to pick up the tool with

minimal guidance. Engineers can perform a number of trade studies to find the most cost effective means of building composite structures. They define specifications and provide them to Franklin, who in turn runs them against SEER knowledge base parameters.

Timesavings enable ATK to pare down proposal team

Before, the complete estimating process took the better part of a week, with the processing part requiring most of that time. Now, Franklin spends just a few hours generating estimates, saving two to four days per proposal. With at least 80 proposals per year, that adds up to about 300 days saved annually.

Such timesavings have allowed ATK to reduce the number of employees it must include on proposals from about nine people down to four,

freeing those individuals to handle other responsibilities. "We're seeing labor savings," Franklin said. "Instead of having a large proposal team doing nothing but proposals, we're down to the bare minimum. With SEER, we can create proposals more quickly, so we don't need as big of a team."

The ability to generate estimates quickly also allows ATK to respond to time-sensitive requests that, previously, might have been missed opportunities. "Sometimes we get some short-fused requests where they need proposals in three to four days," Franklin said. "With SEER, we have the capability of meeting those deadlines."

Franklin also carves time out of proposal preparation with SEER's flexible exporting capabilities. He can bring SEER estimates into Excel spreadsheets, where he manipulates the data and brings it into other cost modeling programs.

Consistency builds confidence for estimators, managers

Most importantly, the proposal team and managers have learned they can trust the numbers SEER provides. "SEER-DFM provides a credible starting point and a consistent platform," Franklin said. "That consistency allows us and management to trust the answers."

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"Sometimes management asks how we generated our numbers," he added. "We say, 'we used SEER and didn't take any exceptions to knowledge base variables.' They say, 'OK,' and that's generally the end of the discussion."



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For more than 25 years, engineers, project managers and cost estimators throughout the world have turned to Galorath Incorporated for the industry's most comprehensive set of decision-support and project management tools for software, hardware and design for manufacturability projects. Combined with extensive consulting and support services, Galorath's SEER estimation and analysis tools derive cost, schedule and staffing estimates by assessing the interaction and impact of product, organizational and even operational variables. This parametric methodology, coupled with the industry's most comprehensive knowledge bases, creates a rapid and powerful view of the critical factors driving program decisions and success from early concepts through upgrade and maintenance phases.