



AUX GALLEY STRUCTURAL SUBSTANTIATION



About Our Client

Our client is a leading original equipment manufacturer (OEM) of business jets with a strong global presence and specializes in creating and delivering the most advanced and innovative business mobility solutions in the market today. The client's expertise encompasses the entire spectrum of the business jet industry, from conceptualization and design to development, production, marketing, and after-sales support.

Business Challenges

Our engagement encompassed a comprehensive static stress analysis of Auxiliary Galley systems across the product portfolio, utilizing computer-aided design (CAD) files, while factoring in various loading conditions including emergency landing scenarios. The program further entailed a meticulous evaluation of the fastener and material properties to comply with stringent industry-specific standards. Multiple tasks of creating an accurate element idealization and ensuring a swift turnaround time posed a significant challenge throughout the project.



Our Solution



The program team initiated the intervention by conducting an extensive series of input studies and customer requirement analysis, employing a systematic approach to gather and evaluate pertinent information.



Subsequently, the team developed comprehensive finite element (FEA) models of Auxiliary Galleys, including accompanying attachments. Linear static analysis was employed to evaluate the potential impact of emergency landings and gust loading, and stress assessments were conducted for each component of the Auxiliary Galley and its attachments, such as Inserts, Panel Pins, M&T, etc.



Finally, the program team produced a static stress report that served as the client's certification deliverable.



TAAL Tech ensured that all deliverables were meticulously scrutinized through a self, peer, and final technical reviews, carried out by TAAL Tech's inhouse Chief Engineer to ascertain their quality and accuracy.

Results Delivered



TAAL Tech's exceptional ability to deliver prompt and efficient results can be attributed to our team's extensive experience in conducting stress analyses for contemporary systems utilized by our multiple Aerospace & Aviation clients. With TAAL Tech's deep understanding of FAA requirements, our team ensured that the design met all pertinent certification requirements, consequently streamlining the approval process. As a result, the project was executed with remarkable agility, minimizing any potential delays and maximizing customer satisfaction. TAAL Tech's expertise and proficiency in stress analysis proved to be invaluable assets, facilitating the successful completion of the project within an impressive timeframe.



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About TAAL Tech

TAAL Tech is a niche Engineering and Technology solutions provider serving global corporations in their pursuit for faster innovation. Our vision is to be a leader in providing innovative, high value engineering & technology services to global corporations. Meet our team and learn more about us.

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