SAE Aero Design
Team Report Assessment Guideline

Introduction

In an effort to improve the SAE Aero-Design experience, the rules committee is changing the approach for managing the scoring of design reports. The Design Report Rubric is being focused to achieve consistent assessment scores and therefor minimize scoring variations among judges. The changes include:

- Binary (either did met or did not meet requirements) type assessments will be performed by a single judge, focusing on how well teams followed the Technical Design Report requirements found in Section 4 of the rules.
- 2D Drawings will be assessed by a single judge. Scores will focus on the 2D drawing requirements, data accuracy, data quality and readability.
- Technical Data Sheet for each class will be assessed by a single Subject Matter Expert (SME). The SME will focus on data completeness, data quality, and presentation.
- Subjective assessment scores will be the average from a minimum of 3 judges. Judges will focus on how well teams communicate their approach and organize the report. The team's design report should contain the topics listed below.

Design

Teams should demonstrate their understanding of the design requirements, scoring criteria, project risks and aero event constraints. Judges will look for discussions on cost, schedule, and resources used to execute the project.

Refine

Discussion should include your approach to design and configuration selection. This may include research, trade studies or evolution of your design. In addition, judges will look for discussions on requirements decomposition, model predictions, test planning and data collection that influenced the team's final design and strategy for winning the competition.

Implementation

This section discusses how the teams translate the results of their analysis and trade studies or research into a buildable design. Judges expect discussions on manufacturing methods and techniques, tools used and material considerations.

Test/Analysis

Here teams communicate the various testing and analysis methods used to confirm the design and scoring objectives. Judges will also look for analysis pertaining to the airplane's structural integrity, stability and control, propulsion system and loads verification.

Organization

Judging considers if the design report clearly and logically covers the important topics to an appropriate depth. Judges look at the overall quality of the report including spelling, punctuation and grammar.