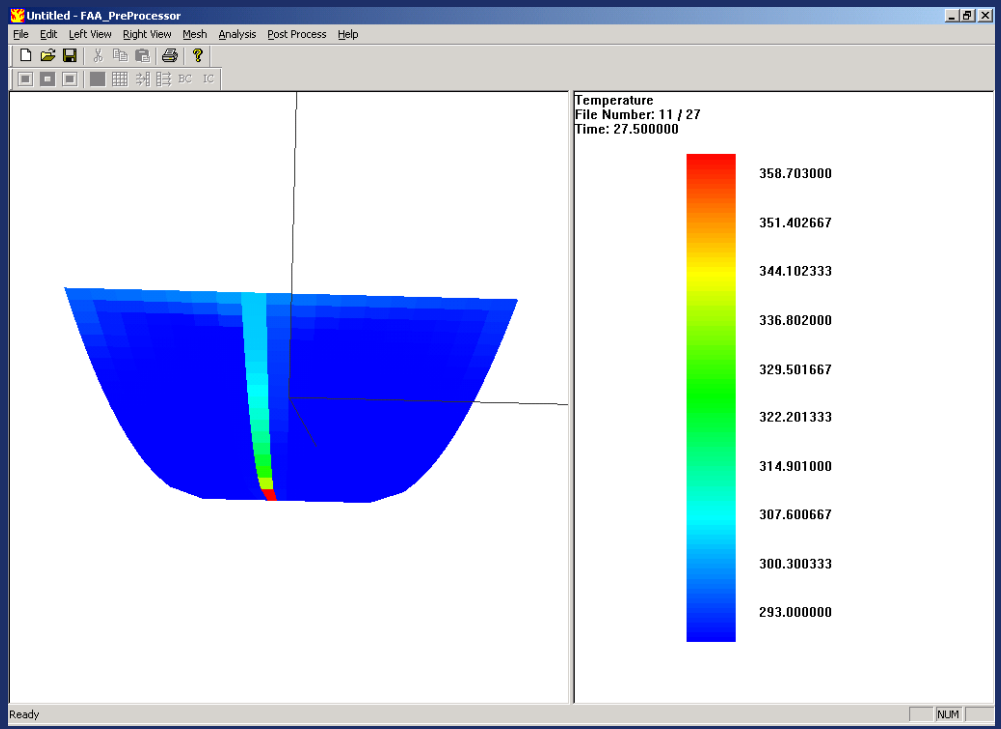
Smoke Transport CFD Code Status



Federal Aviation Administration

Presented to: International Aircraft Systems Fire Protection Working Group. Atlantic City, NJ

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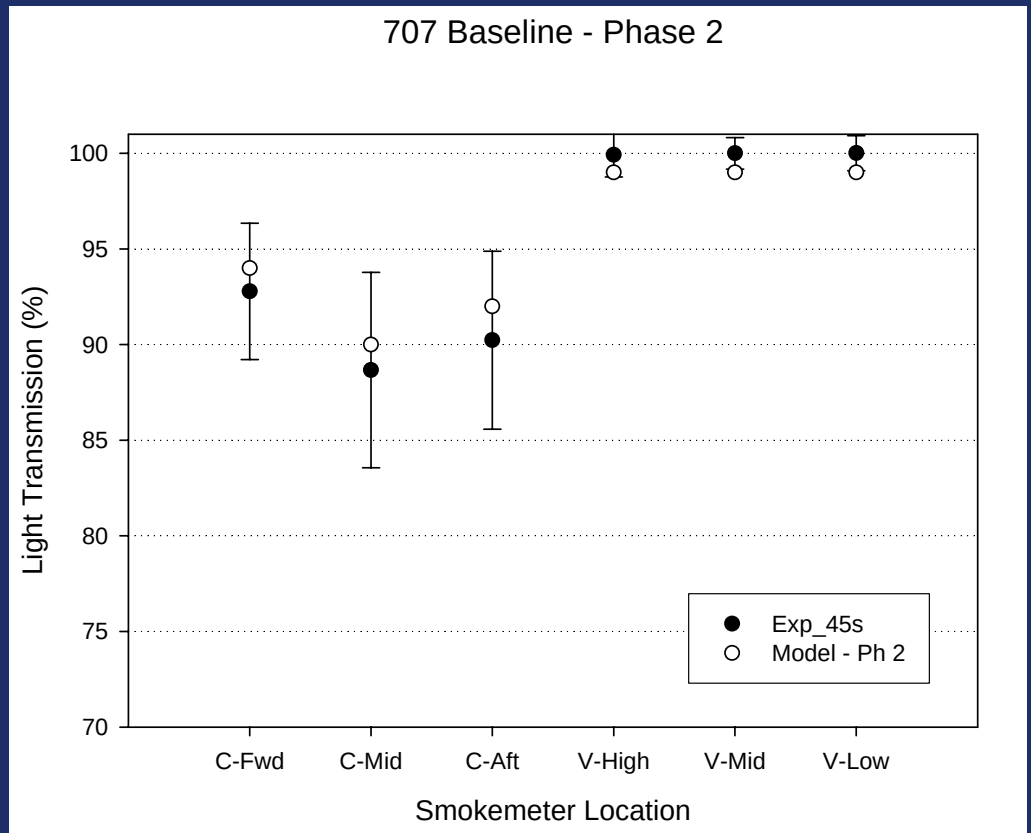
•Sandia National Laboratories has developed a CFD code for the FAA that models the transport of products of combustion throughout a cargo compartment.

•The code was validated with numerous tests in a 707 and DC-10 below floor cargo compartment. There was good agreement between actual fire test data and code results.



- **The code was initially released to a group of potential users for evaluation. No feedback was received.**
- **Data from the recently completed Class E Smoke Detection project is available and could be used to further validate the model under those conditions.**
- **Work is underway to upgrade the Graphical User Interface (GUI) to improve ease of use. If the proposed validation results show reasonably good agreement, the code will be better publicized for use by industry in the certification process.**