

2nd AIAA CFD Drag Prediction Workshop

Opening Remarks

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21st Applied Aerodynamic Conference
Orlando, FL
21-22 June, 2003

2nd AIAA CFD Drag Prediction Workshop

Organizing Committee

John Vassberg

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DLR, ONERA

Cessna Aircraft Co.

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Objectives

- Build on DPW-I w/ Incremental Drag & Grid Convergence
- Assess State-of-the-Art CFD for Semi-Complex Geometries
- Provide Impartial Forum To Evaluate RANS Solvers
- Identify Areas Needing More Research & Development
- +
- Representation: Industry, Academia & Government Labs
- Document Results
 - Available on DPW-II Website After Workshop
 - AIAA Papers for Reno 2004

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Participation Demographics

- Total Participants: 25
- North America: 52% , Europe: 28% , Asia: 20%
- Industry: 48% , Gov't Labs: 30% , Academia: 22%
- Structured: 48% , Mixed-Element: 40% , Tetrahedra: 12%
- Returning From DPW-I: 52% , New To DPW-II: 48%

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DLR-F6 Test Cases

Required Cases

1. *Single Point Grid Sensitivity Study on Three Grids*
 - Mach = 0.75 , $C_L = 0.5$, Re = 3M , WB & WBNP
2. *Drag Polar on WB & WBNP Medium Grids*
 - Mach = 0.75 , Alpha = -3, -2, -1.5, -1, 0, 1, 1.5 (deg)

Optional Cases

3. *Tripped vs. Fully-Turbulent Drag*
 - Mach = 0.75 , $C_L = 0.5$, Re = 3M , WB & WBNP
4. *Constant C_L Mach Sweep*

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Agenda

Saturday, 21 June, 2003 (8:00-5:30)

- Overview of Geometry, Grids & Test Data
- Participant Presentations (Sessions 2-5)
- Open Discussion

Sunday, 22 June, 2003 (8:00-3:30)

- Participant Presentations (Sessions 6-7)
- Open Discussion
- Summary of CFD Results & Statistics
- FLOMANIA Presentation
- Next Steps: Reno '04 & DPW-III?