



**NIELSEN ENGINEERING
& RESEARCH, INC.**

Independent Assessment of Spacecraft Aerodynamics and Flight Mechanics

Nielsen Engineering & Research (NEAR) is pleased to announce the formation of an assessment team now available to provide an independent review of, and technical expertise for, spacecraft development programs in these technical areas:

- Aerodynamic database development and evaluation
- Stability and control characteristics
- Ascent, reentry, and landing flight mechanics
- Abort systems
- Aeroacoustic environments, Aeromechanical behavior, and cavity flows
- Dynamic vehicle behavior

The NEAR team has accumulated more than 200 years of practical experience in major aeronautical and space programs for NASA, DoD, and Industry. Core capabilities include computational aerodynamic analysis, wind tunnel testing, and flight testing. Lessons learned and best practices from these successful programs are used to help identify potential problem areas early in the design and development cycle of advanced spaceflight vehicles.

Current NEAR team members include:

- **Michael R. Mendenhall** – Forty-eight years experience in applied computational aerodynamics as Principal Investigator and Project Manager. Spacecraft experience includes Pegasus, Taurus, MLAS, and other commercial programs.
- **William C. Rose** – President of Rose Engineering & Research, forty-five years experience as a Principal Investigator in computational fluid mechanics, aeroacoustics, flight testing, cavity flows, and dynamic stability analysis.
- **Bass Redd** – Retired from NASA, extensive experience on Apollo, Space Shuttle, and Space Station programs in design, aerodynamics, aeroheating, flight performance, and abort systems.
- **Richard L. Barton** – Retired from NASA, USA Chief Engineer for Space Shuttle Program Integration, experience in dynamic stability, parachute dynamics, reentry stability and control, ascent flight mechanics, and engineering management.

More extensive and detailed resumes of the NEAR team are available on request.

For more information on an independent assessment of your program, contact

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