A Prospectus for

Renewal of the Consortium for NASGRO® Development and Support

Southwest Research Institute® October 2024



The NASGRO® computer code was first developed in the 1980s for fracture control analysis on NASA space structures. Major improvements during the past forty years have also made the software a valuable tool for aircraft, rotorcraft, gas turbine engines, pressure vessels, and other applications. NASGRO has been jointly developed since 2000 by NASA and Southwest Research Institute® (SwRI®). A new NASGRO version is developed and released every 10-18 months. Each new version contains many improvements, including new stress intensity factor solutions, graphical user interface features, analysis options, and material properties. The total new investments in NASGRO development and support exceed \$2.5M per year. NASGRO is the most widely used fracture mechanics and fatigue crack growth software in the world today.

SwRI manages a consortium of industrial NASGRO users to provide guidance and support for future NASGRO development and user services. The NASGRO Consortium has been extremely successful since it began in 2001, steadily growing with each three-year renewal. Currently 25 major manufacturers in 11 different countries are participating:

The Aerospace Corporation GKN Aerospace RTX Corporation

Airbus Honda Aircraft Engines Siemens Energy

Airbus Canada Honeywell Sierra Nevada Corporation

BAE Systems

IHI Corporation

Sierra Space
Blue Origin

Israel Aerospace Industries

Sikorsky

Posing

Korea Aerospace Industries

Space Y

Boeing Korea Aerospace Industries SpaceX
Bombardier Leonardo Spirit AeroSystems

Embraer Lockheed Martin Aeronautics United Launch Alliance
Mitsubishi Heavy Industries

SwRI also licenses NASGRO to others, with all licensing fees dedicated to user support and software enhancement. Over 1200 commercial licenses have been issued to date.

Based on the strong success of the first eight consortium cycles, a ninth NASGRO consortium cycle with a new three-year term is being established. All existing consortium members are encouraged to continue (or expand) their NASGRO partnership by renewing their participation. Other organizations that have not previously participated are welcome and invited to participate in this ninth cycle as full and equal members without penalty.

What are the advantages of Consortium participation?

Immediate access to all new NASGRO versions

You receive (via the secure NASGRO web site) perpetual site licenses for all new NASGRO versions released during your participation as soon as they are developed. Consortium

participants also receive developmental (Alpha and Beta) versions for early evaluation, beginning 6-8 months prior to the release of the production version.

Software cost savings

Consortium participation fees are lower than the cost of commercial NASGRO site licenses. Multiple-site participation fees provide even larger discounts for an unlimited number of seats and sites worldwide. Furthermore, new participants in Cycle 9 will also receive the current NASGRO 11.x versions in addition to the new NASGRO 12.x versions.

Direct input into future NASGRO capabilities

You have direct influence over priorities, plans, and methods for new NASGRO features. You can guide and shape the software to address your company's needs and preferences.

Discounts on NASGRO training

SwRI has presented our NASGRO short course to more than 1975 people since 2006. You receive a 50 percent discount on registration fees for individual seats in five-day NASGRO short courses offered virtually online. You also have access to electronic copies of the training curriculum for your own internal training use.

Recognized participation in a network of industry leaders

You have the opportunity to interact with structural integrity experts from the leading aerospace and gas turbine engine companies in the world. Your company will be recognized as a major player in this international community.

During the upcoming ninth cycle of the consortium, an organization using NASGRO at a single geographical site will pay \$34,000 annually to participate in the consortium (\$68,000 for two sites), and an organization using NASGRO at an unlimited number of multiple sites will pay \$84,500 annually. These fees will remain unchanged for three years.

The ninth cycle of the consortium will begin in June 2025. Formal consortium proposals will be distributed upon request beginning in January 2025 (earlier if needed).

Southwest Research Institute is an independent, impartial, nonprofit organization with an international reputation in structural integrity research and extensive experience in structural integrity software development and licensing.

Additional information about NASGRO and SwRI is available at www.nasgro.swri.org. For further information, please contact:

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