The U.S. Air Force Research Lab (AFRL, Dayton, Ohio) is funding the qualification of a non-methylene-dianiline (MDA) polyimide material for use in airframe and engine applications. The Air Force and the National Center for Advanced Material Performance (NCAMP, Wichita, Kan.), which is coordinating this effort, believe that polyimide-based composite materials could be a substitute for many aerospace parts currently made from titanium.

Biz Brief:

Amber Composites (Langley Mill, Nottingham, U.K., 7313) and Arkema (Philadelphia, Pa. and Colombes, France, 127) have entered into a collaborative agreement to develop a high-performance prepreg system based on Arkema's trademarked Graphistrength multiwall carbon nanotubes and Amber's proprietary resins. Prepreg systems enhanced with carbon nanotubes reportedly exhibit extraordinary mechanical, electrical and thermal properties. Lower weight, higher toughness and improved impact resistance are the focus of Amber and Arkema's development. Arkema's Graphistrength nanotubes are approximately 10 nm in diameter and are a few micrometers in length.

For product information, add the red number for each supplier to the following string in your browser: www.compositesworld.com/showroom/___.

Biz Brief:

Honda Aircraft Co. Inc. (Greensboro, N.C.) is expanding sales of its HondaJet to Europe. The sales expansion comes as Honda Aircraft Co. finalized its U.S. distribution network with the selection of Albany, N.Y., as the final location among its five sales and service facilities being established across the country. Honda's decision to expand sales of its advanced light jet to the rapidly growing European market is in response to strong demand for the aircraft from customers throughout the region. Honda recently expanded HondaJet sales throughout North America, announcing the establishment of a sales and service strategy for Mexico and Canada.

The scarcity of raw material and the high manufacturing costs associated with titanium make a substitute attractive to the aerospace industry. Polyimide composites can replace titanium in many applications that require less than 500°F/260°C operating temperature while offering potential advantages, such as lower cost and reduced weight. The advantages of a polyimide over epoxy and bismaleimide include a higher operating temperature, which may reduce or eliminate the need for thermal insulation in some applications.

The requirement for the high-temperature and high-pressure autoclave curing process will likely limit the number of companies participating in process equivalency. Currently four companies are interested in proposing materials. For more information on the qualification program, including requirements for submitted materials, visit the NCAMP Web site. www.niar.twu.edu/coe/ncamp.asp, or call (316) 978-5212.