



**QUESTEK WINS SBIR PHASE II AWARD TO DEMONSTRATE  
*FERRIUM*<sup>®</sup> M54<sup>™</sup> STEEL FOR NAVY AIRCRAFT TAILHOOKS**

*Economical Ferrium M54 Alloy Provides Superior Strength, Toughness,  
SCC Resistance, Surface Hardness, Thermal Resistance and Other Benefits*

EVANSTON, IL, July 2, 2012 - QuesTek Innovations LLC has been awarded a Small Business Innovation Research (SBIR) Phase II project from the U.S. Navy Naval Air Systems Command (NAVAIR) to fabricate and experimentally test aircraft tailhooks made from QuesTek's new economical, high strength, high toughness *Ferrium*<sup>®</sup> M54<sup>™</sup> steel. Relevant laboratory tests of M54 are expected to be performed, as well as a cost-benefit analysis. The 2-year contract is valued at \$749,991, and is a collaborative effort between the Navy, QuesTek, OEM manufacturers, and testing laboratories.

The advantages of M54 over the incumbent steel often used for tailhooks are expected to include superior strength, toughness, stress corrosion cracking (SCC) resistance, surface hardness and thermal resistance (due to M54's higher final tempering temperature), which may eliminate the need for thermal/wear resistance coatings currently in use today.

QuesTek computationally designed and developed M54 under earlier Small Business Innovation Research (SBIR) Phase I and II projects awarded by NAVAIR. M54 is currently being evaluated, tested or used in oil and gas, racing, naval aircraft landing gear and other product applications. Latrobe Specialty Steel Co. of Latrobe, PA, USA commercially produces and sells M54 under their license from QuesTek.

Charlie Kuehmann, President and CEO of QuesTek, commented: "We thank NAVAIR for this award and the opportunity to demonstrate the benefits of *Ferrium*<sup>®</sup> M54<sup>™</sup> in this highly demanding and safety critical product application. This project provides another illustration of QuesTek's integrated, applied approach to computational materials design, in which we work closely with clients from concept through design and then application of materials to improve product performance."

Additional information about M54 is available at [www.questek.com/ferrium-m54.html](http://www.questek.com/ferrium-m54.html) and [www.latrobesteel.com/assets/documents/datasheets/Ferrium\\_M54.pdf](http://www.latrobesteel.com/assets/documents/datasheets/Ferrium_M54.pdf).

#### ABOUT QUESTEK

QuesTek Innovations LLC ([www.questek.com](http://www.questek.com)) is a global leader in integrated computational materials engineering (ICME), serving commercial and governmental clients. QuesTek uses its proprietary *Materials by Design*<sup>®</sup> technology and expertise to rapidly design new materials that reduce capital, processing, operating or maintenance costs, or improve environmental protection, competitive supply or competitive advantage. QuesTek has commercially introduced four new alloys via its licensees, has more than 10 new alloys in its design and development pipeline, and has more than 30 patents awarded or pending worldwide. For more information, contact Jeff Grabowski at 1-847-425-8241 or [jgrabowski@questek.com](mailto:jgrabowski@questek.com).