

Leveraging Emerging Technologies for Future Capabilities

By Mike Hirschberg, Executive Director

AHS International works on an annual cycle, with the Annual Forum as the climax of our efforts for the year.

Of course, during the other 11 months, we bring our members the most in-depth technology news in *Vertiflite*, the latest breakthroughs and theories in the *Journal of the AHS*, cutting edge technical meetings with world-renowned experts, and so much more. Vertical Flight Foundation (VFF) scholarships, Student Design Competition, Micro Air Vehicle (MAV) Student Challenge and other educational initiatives help shape the future of vertical flight.

Throughout the year, AHS provides information to the US Congress, the Department of Defense, NASA and the Federal Aviation Administration, advocating for more vertical flight research and development, and improvements that affect operations — efforts that have shown remarkable success. AHS urges all governments worldwide to follow suit in development investments and regulatory improvements.

Throughout the year, AHS chapter events help facilitate learning and networking opportunities. In addition, we continue to expand our online offerings and are working on significant improvements that will be a sea-change in our online capabilities, furthering our mission to provide “an international forum through which to expand the body of knowledge of vertical flight.”

AHS International is the only global forum (with a lower case “f”) where vertical flight professionals can interchange information on the latest technology and concepts, and the AHS Annual Forum (with a capital “F”) is the place where once a year the technical community comes together to share,



learn and be re-energized with the excitement of vertical flight.

The theme for this year’s 72nd Annual Forum & Technology Display is “Leveraging Emerging Technologies for Future Capabilities.” Recent years have seen emerging technologies like metallic additive manufacturing now used for production parts; fully three-dimensional Computational Structural Dynamics (CSD) coupled with Computational Fluid Dynamics (CFD) for high fidelity aeromechanics modeling, design and analysis; and innovative designs for transmissions and drive systems proving their merit.

An exciting emerging capability in vertical flight is the extension of the electric vehicle technologies proliferating in Unmanned Aircraft Systems (UAS) to manned aircraft. AHS has been leading an initiative on “Transformative” concepts technologies and approaches, such as electric/hybrid

power and distributed propulsion that offer the potential to fundamentally transform vertiport-capable flight configuration designs and operational concepts. Dozens of companies are now investing significant resources in developing their concepts into products for an expected explosive market.

Forum 72 is being held May 16-19 in West Palm Beach, Florida. This is the first new region in the Forum rotation since Montréal was added in 1999, and it is a very exciting venue. Palm Beach County boasts a strong aerospace presence with more than 600 aviation and aerospace companies. Foremost among them in vertical flight is Sikorsky, now a Lockheed Martin Company.

The AHS Technical Committees accepted 293 technical papers — a record by far — and the Forum will be once again loaded with technical content. The Forum begins on Monday, May 16 with tours of Sikorsky’s Development Flight Center, short courses on Rotorcraft Technology Development and Helicopter-Ship Qualification Testing, and the 4th Annual MAV Student Challenge.

A total of 30 panelists will add to the technical and programmatic content over the next three days. The annual CEO Panel, “Straight Talk from the Top,” will provide insights from the leaders of the major helicopter companies, while the annual Alexander A. Nikolsky Honorary Lecturer will be Bell Helicopter’s Tom Wood, providing “50 Years of Industry Perspective.” Other key technical presentations include the Ian Cheeseman Award winner from the European Rotorcraft Forum (ERF), AHS Student Design Competition winners, and the AHS Robert L. Lichten presentations. The Annual Grand Awards Banquet will honor the winners of the VFF Scholarships, fête the greatest

accomplishments by the technical community over the past year, and recognize career achievements.

Special sessions will include briefings by the program managers of the US Army and US Navy/Marine Corps Program Executive Offices (PEOs), as well as international government rotorcraft science and technology program managers, and government/industry innovators seeking to advance transformative vertical flight concepts.

The incredible breadth and depth of technical content make the Annual Forum the high point of the technical calendar for those working in vertical flight. The sharing of information and insights across industry, academia and government organizations facilitates the advancement of vertical flight technology and the technical community. Participants become energized and inspired by face-to-face technical discussions, across companies and countries, as well as within the hierarchies of management and the supply chain. Connections made through participation in AHS activities have proven to be major assets in accelerating our members' capabilities and careers.

Come to Forum 72 to interact and share ideas with more than 1,100 of the world's leading vertical flight professionals. Go to www.vtol.org/forum to find out more. This is an event that should not be missed!




R44 *now with* Autopilot

The R44 combines the latest technology with high performance and proven reliability.

The optional Genesys Aerosystems' HeliSAS autopilot includes basic stability augmentation, heading hold, navigation signal tracking, and approach guidance.

Locate a Robinson dealer
www.robinsonheli.com



Join Us for the Biggest Vertical Flight Technical Event of the Year!

72nd Annual Forum and Technology Display
May 17-19, 2016 • Pre-Forum Activities on May 16
"Leveraging Emerging Technologies for Future Capabilities"
www.vtol.org/forum