AHS International

Factsheet

- ➤ The American Helicopter Society (AHS) International is the world's premier professional vertical flight technical society. Since its inception in 1943, AHS has provided an international forum through which to expand the body of knowledge of vertical flight. The Society is the global resource for information on vertical flight technology.
- ➤ Based in Alexandria, Virginia, AHS International has over 6,000 members, including 1,300 in 43 countries outside the U.S. AHS International is a 501(c)(3) charitable non-profit educational institution under U.S. tax regulations.
- AHS International's vision is to provide global leadership for scientific, technical, educational and legislative initiatives that advance the state of the art of vertical flight.
- AHS International initiated the Igor I. Sikorsky Human Powered Helicopter (HPH) Competition in 1980, initially with a prize of \$10,000. The prize was later raised to \$25,000.
 - Igor I. Sikorsky was a founding member of AHS 70 years ago, and the prize was named for him due to his innovative spirit.
- ➤ In 2009, Sikorsky Aircraft pledged \$250,000 for the first flight of a human powered helicopter that met all of the requirements of the AHS competition, in order to increase the motivation for innovators to enter the competition, after dozens of unsuccessful attempts.
- The primary driving requirements to win the AHS Sikorsky Prize: (1) hover for one minute; (2) reach an altitude of at least three meters; and (3) remain over a 10-by-10 meter square.
- ➤ Technology challenges: Pushing the limits of minimizing weight, maximizing lift, controlling aeroelasticity and maximizing power extraction from the pilot and transmission to the rotors, while maintaining aircraft controllability.
- ➤ The AHS Sikorsky Prize wasn't about creating a practical machine. It was set up to challenge young engineers in the vertical flight community to harness their creativity and technical skills and work as a team against extremely challenging requirements.
- ➤ The competition was specifically designed to energize students and other innovators by providing hands-on, galvanizing experiences for the next generations of vertical flight engineers, scientists and other specialists. The competition exceeded all hopes.
- ➤ Over the past 33 years, the aerospace industry has benefited from huge advancements in multiple technologies. These include revolutionary improvements in composite structures and computer simulation, as well as improvements in understanding low-speed rotor aerodynamics and human power output, to name a few.
- ➤ The scientific breakthroughs, engineering innovations and inspiring accomplishments that have been engendered by the AHS Sikorsky Prize are a testament to the ability of the human spirit to tackle seemingly impossible challenges.
- AHS International is working on the details of the next challenge and will announce it in the coming months. It will not necessarily be a human-powered helicopter.
- > See www.vtol.org/hph for the complete competition rules, videos and past media coverage.