

# AHS Launches Vertipedia — Volunteers Needed!

AHS International is pleased to announce the initial launch of Vertipedia — a comprehensive online vertical flight encyclopedia — as the latest membership initiative. Found at <http://vertipedia.vtol.org> (or [www.vertipedia.org](http://www.vertipedia.org)), the new microsite is intended to be a comprehensive source of quality data for any vertical flight aircraft — from historical to those currently in operation and development.

A small team of AHS member volunteers has been developing the framework and initial inputs for Vertipedia over the past two years, with the primary objective of building a “one stop” source for VTOL reference data and information — a very ambitious goal! However, with such a small team, it would be impossible to provide AHS members with a fully populated database, so AHS has built the basic infrastructure and we are now inviting you, our members, to help us expand the data scope.

Although still in development, Vertipedia can already serve as:

- An ongoing, frequently updated record of aircraft history and development providing a legacy for future generations of vertical lift professionals
- An educational tool, especially for junior engineers and those new to the industry
- A way to foster inquiry and learning by providing different “pathways” to related industry data, such as manufacturers, history, powerplants and more
- A means to add value to AHS membership, not only by providing another useful member resource, but also by encouraging participation and discussion

As of press time, Vertipedia contains data on 318 aircraft, 201 powerplants, 179 organizations and 274 historical milestones, as well as the framework for biographies. In addition, Vertipedia includes a glossary of terms, feedback requests and discussion forums — we want to hear from you! With your help, Vertipedia can also be evolved in

The screenshot shows the Vertipedia website interface. At the top, there is a navigation bar with links for Home, Discussion, Get Involved!, AHS Website, and Member Login. The main content area is titled "Boeing AH-64A Apache" and includes a description: "The multiple spar design of the AH-64A main rotor blade allows the blade to survive an impact from a 23mm high-explosive round, while still retaining sufficient blade life to permit safe flight and landing." Below this, there are two images: one showing the rotor assembly and another showing a close-up of a rotor blade. To the right of the images are two tables of technical specifications.

Main Rotor Characteristics		Main Rotor Blade Characteristics	
Hub type <sup>106</sup>	Offset hinge articulated rotor with static mast and strap retention	Blades per rotor	4
Direction of rotation	Counterclockwise	Blade chord <sup>106</sup>	0.533 m 1.75 ft
Diameter	14.63 m 48.00 ft	Blade twist <sup>106</sup>	9 000 deg
RPM	284.0	Construction <sup>106</sup>	Five stainless steel / fiberglass spars with stainless steel leading edge. Nomex honeycomb aft section covered in fiberglass.
		Tip geometry <sup>106</sup>	20° swept tip

  

Main Rotor Derived Characteristics		Main Rotor Blade Derived Characteristics	
Disk area	168.10 m <sup>2</sup> 1,809.5 ft <sup>2</sup>	Area per blade	3.90 m <sup>2</sup> 42.0 ft <sup>2</sup>
Disk loading	56.66 kg/m <sup>2</sup> 11.606 lb/ft <sup>2</sup>	Blade tip speed	217.55 m/s 713.7 fps
Solidity	0.0928		

Note: disk loading is based on max gross weight (on ground) to help compare the widest range of aircraft.

Note: blade area is calculated as rotor radius times blade chord and ignores any root cut-out.

whatever directions that AHS members find most useful.

You may ask: what will Vertipedia provide that is not already available on the internet? Other public databases do not have in-depth technical information on aircraft, or only for representative models. The intent of Vertipedia is to leverage information from AHS publications and approved (public) manufacturer data to provide comprehensive information on all types and variants wherever possible. Every piece of data is referenced to the most reliable source possible, which can be checked and updated as better data is made available or information changes.

One of the most important features is the powerful search engine, which returns results from AHS proceedings papers, *Vertiflite* articles, *AHS Journal* articles and the AHS website, as well as (currently) 10 academic and US government databases. This unique feature is another valuable resource for vertical flight researchers.

One of the key aspects of Vertipedia has been to build the database around a structure that enables related data to be easily linked together. A design principle has also been to minimize any need for special training to use the database or contribute to the data. Users can easily

build complete data sets for individual aircraft — not simply generic data representative of a type or family.

This means you can participate right now — Vertipedia needs your expertise! Any database is only as good as the data it contains, and Vertipedia is no different. Your help with research, data entry and referencing is critical to Vertipedia's growth. Testing, error tracking and thoughtful, constructive feedback will also make Vertipedia a serious scholarly resource for AHS members.

We've built a robust “contributor” interface that lets you add and edit aircraft data from any computer with a browser. We are looking forward to your active participation and feedback! With your help, Vertipedia will become a valuable, comprehensive resource for members. Please contact Betty Chen, [bchen@vtol.org](mailto:bchen@vtol.org) or 1-703-684-6777 x102, to get involved or for more information. Thank you!

Demonstrations and opportunities for questions and feedback will be available during Forum 72 in the exhibit hall at the AHS booth. Stop by to check it out!

