



Aircraft Engine
Historical Society

Official Program

First Annual AEHS Convention

Rantoul, Illinois

July 22 - 25 2004

Message from the President

Thank you for attending this First Annual Convention of the Aircraft Engine Historical Society. We hope you find this gathering educational, entertaining and enjoyable.

Since the early days of the Society, one of my personal goals has been to share information about aircraft engines via a network of people with similar interests. I was thrilled with the immediate participation of aircraft engine historians like Kevin Cameron, Bob Neal, Larry Rinek, Graham White and Dan Whitney. These people provided not only material for the journal and web site, but advice and encouragement as well.

I was also pleased with the tremendous support from the Rolls-Royce Heritage Trust, Kalamazoo Aviation History Museum, San Diego Aerospace Museum and the National Air and Space Museum, just to name a few.

But the real pleasure came as I began to sense the breadth and depth of the membership at large, a sampling of which is represented by the attendees of this convention. One of the neat parts of my job is that I get to correspond with members and get to know something about them. In addition to the well-known writers, there are rocket scientists, computer scientists, air racing enthusiasts, airplane designers, engine designers, practicing engine builders and maintainers, researchers and others who share a passion for the subject.

Those in attendance at this convention are, in large part, the pillars of this organization. Please get to know one another, learn from one another and enjoy one another's company. You are a member of a very unique and talented group.

Please make a special point to thank Paul Palmgren and Graham White, whose extraordinary efforts have made this convention possible.

Thanks again for attending and have a great time!
Kimble D. McCutcheon

Message from the Vice President

Welcome to the first annual convention for the Aircraft Engine Historical Society.

We at AEHS sincerely hope that you find the convention rewarding, fun and educational. A super line-up of speakers and events has been put together for your enjoyment not to mention education. We would like to make this convention an annual affair; however, it's up you, the membership, to decide if we continue; let us know your thoughts.

Aircraft power plants have traditionally suffered short shrift from historians and authors. This sad state of affairs is primarily due to a lack of knowledge. Events such as the convention will hopefully correct this alarming oversight and educate even those who do not share the passion for engines that AEHS and its members does. By sharing anecdotes, experiences, plus the accumulated knowledge of the membership we can keep this wonderful aspect of aviation history alive and at the same time dispel the many Old Wives' Tales that permeate through the popular press, books and magazines.

With some luck we will feature live demo runs of engines. Nothing and I mean NOTHING sounds like a big cubic inch aircraft engine running at take off power so hopefully you have your ear plugs. Or if you are like me, you just take in all the sights and sounds with no ear protection. Not recommended, that's why I'm now almost stone deaf with some frequencies..!!

This convention will offer a once in a lifetime opportunity to shoot the breeze about our favorite subject without being thought of as being "strange" or "different" or worse yet, endure endless talk about stick 'n ball games.

We encourage you to critique the convention and offer comments both pro and con. We rely on your input to keep this Society vibrant and responsive to your needs. Keep us informed on what you would like to see in *Torque Meter* and the web site. Remember, our primary goal is to preserve the rich history of aviation power plants, regardless of type.

I would also like to take this opportunity to sincerely thank AEHS member Paul Palmgren who was instrumental in choosing Rantoul as the site for our first convention. Paul has also put in many hours of hard work in taking care of the myriad logistical issues that inevitably arise with a function of this kind.

Again, welcome to our convention - Graham White, V.P., AEHS.

Schedule of Events

Thursday July 22

12 noon to 5:00pm Registration at the Fanmarker Hotel lobby.

6:00pm to 8:00pm Happy hour & socialize at Officer's Club. Light hors d'oeuvres served. Cash bar.

Friday July 23

9:00am to 10:30am Introductions - each attendee gives a one minute bio.

10:30am to 11:00am Break and shoot the breeze.

11:00am to 12 noon Presentation - Dan Whitney and Bud Wheeler - Allison engines.

12 noon to 1:30pm Lunch break. Special interest sessions.

1:30pm to 2:30pm Presentation - Graham White - Collecting engines.

2:30pm to 3:00pm Break and shoot the breeze.

3:00pm to 4:00pm Presentation - Kevin Cameron.

4:00pm to 4:30pm Break and shoot the breeze.

4:30pm to 5:30pm Presentation - Larry Rinek - Curtiss engines.

6:30pm to 9:00pm Dinner on your own.

Saturday July 24

9:00am to 10:00am Presentation - Kim McCutcheon - Lost Generation of Liquid-Cooled Engines.

10:00am to 10:30 Panel discussion, brainstorm ideas.

10:30am to 11:00am Break and shoot the breeze.

11:00am to 12 noon Presentation - Lee Hodgson - Miniature engines.

12 noon to 1:30pm Lunch break. Special interest sessions.

1:30pm to 5:00pm Museum visit.

6:00pm to 9:00pm AEHS Convention Dinner at Officer's Club.

Sunday July 25

9:30am to 10:00am Meet in the Fanmarker lobby

10:00am Travel to Paul Palmgren's facility for engine run ups.

Speaker's Biographies

Dan Whitney –

Dan Whitney is a retired Professional Mechanical Engineer with a career-long interest in the Allison V-1710 engine. During the Viet Nam war he served in the USAF as a Chief of Aircraft Maintenance for a Wing of C-130s. He then began a career in the electric utility industry, first responsible for the operation and engineering of a nuclear power plant and then for development of advanced gas turbines for power generation. His avocation remained aviation where he focused on the engineering basis for the V-1710. This led to writing the definitive *Vee's For Victory! The Story of the Allison V-1710*, published by Schiffer in 1998. Dan will provide a discussion of work he has done in support of current era operations of the V-1710 and other liquid-cooled engines, based on his comprehensive knowledge of the engineering and Army Air Corps basis for these engines. He has provided several articles for the AEHS Journal *Torque Meter* as well as other magazines and aviation journals. At present he is building a V-1710 to be run on a trailer, complete with a propeller and systems configured as on the P-40 airplane. He is the president of the McClellan Aviation Museum Foundation in Sacramento, California, where he lives with his family.

Bud Wheeler –

Bud Wheeler is a master engine builder, Licensed A&P, and the President of *Allison Competition Engines (ACE Allisons)* in Latrobe, Pennsylvania. After fifteen (15) years of rebuilding Allison V-1710 engines he was asked to provide the Allisons for the Santa Monica Museum of Flying new-manufacture YAK-3 program. This became the beginning of Mr. Wheeler devoting his full-time to aviation and the support of the Allison V-1710. Now fifteen years later, his many satisfied customers from around the world know his passion and expertise with the Allison engine, as his is the only strictly Allison overhaul shop in the world. There he provides the only cylinder-bank restoration facility for V-1710s, including installation of nu-chrome cylinder liners that he pioneered and result is outstanding engine performance and reliability. ACE's extensive inventory of engine parts is used to overhaul the complete range of Allison V-1710 models, including the V-3420 and long-nose V-1710-C15. Overhauled V-1710 engines are run on the only completely instrumented test-cell, providing comprehensive engineering data on air/fuel ratio, exhaust gas temperature, and horsepower. Mr. Wheeler provides thirty years of experience to the Warbird owner-operator community and will be addressing the conference on his experiences building reliable Warbird engines.

Graham White –

Recently retired from the IBM Corporation, Graham White spent most of his working career as a mechanical engineer. Since retirement he has taken up a number of projects including being Vice President of the Aircraft Engine Historical Society (www.enginehistory.org). He is also executive editor of AEHS's magazine; *Torque Meter*. White has also authored two books on aircraft engines: *Allied Aircraft Piston Engines of World War II* and *R-2800 – Pratt & Whitney's Dependable Masterpiece*. Both books are published by the Society of Automotive Engineers (www.SAE.org). He is currently writing a book on the Pratt & Whitney R-4360. White is also an avid collector of aviation history including engines that he restores to running condition – he currently has six in his collection.

Speaker's Biographies

Kevin Cameron –

Harvard educated Kevin Cameron is probably best known as a motorcycle journalist. He has been the technical editor of *Cycle World* for many years where he enjoys an enthusiastic following of fellow gear heads. Kevin is renowned for explaining the most complex issues in layman's terms – a good indicator that he has a thorough grasp of all things technical. Many people do not realize that Kevin's technical knowledge goes far beyond motorcycles; he is equally conversant in aviation matters. AEHS is indeed fortunate to have such a talented individual as a guest writer for *Torque Meter* and as a speaker at our convention.

Larry Rinek –

Larry Rinek works with various industries as the Director of Consulting, Industrial Technologies at Frost & Sullivan in California. He began his career in the southern California aerospace industry prior to graduation from UCLA's engineering and business schools (earning a BS and an MBA). He worked at NASA's Jet Propulsion Laboratory (Pasadena), Menasco's landing gear plant (Burbank), and the US Air Force (El Segundo). Mr. Rinek has authored 15 historical articles and papers for various journals and publishers. He is an active member of the American Aviation Historical Society (now serving as a Director for the Northern California Chapter), SAE Historical Committee, Aircraft Engine Historical Society (charter member), the Wings of History, and supports various US aero museums. Mr. Rinek soloed in his family's 1947-vintage Piper J-3 Cub, and enjoyed orientation flights in the cockpit at the controls of various USAF jets. In the course of the Menasco historical research, he experienced first-hand the feel and sound of an antique Menasco engine (D4-87), as a passenger in a restored Ryan ST-A.

Kim McCutcheon –

Kim has been involved with aviation for more than 38 years. He began as a member of the Civil Air Patrol and paid for part of his college education with jobs in aviation. He then spent twenty years in the bit mines of North Alabama, concentrating on the development of data acquisition, machine control, communication and database applications for academia, medicine, industry and government.

In 1993, Kim retired from his real job but soon lapsed back into old aviation habits. In 1995, he founded an aircraft maintenance organization. Shortly thereafter he began researching and writing about aircraft engines.

Kim holds Commercial Pilot (ASME), Flight Instructor and Mechanic (A&P/IA) Certificates. He has authored several articles and a book on aircraft engines.

Lee Hodgson –

Lee graduated from the University of Texas in 1971 and started work as a test engineer at Pratt & Whitney in East Hartford. Other experience includes being a design engineer in electro-optics for Texas Instruments. Currently he works as a gas turbine systems engineer in Cincinnati, Ohio. He has a home machine shop where he builds model radial and rotary engines. His current project is a model of a 14 cylinder sleeve valve radial.

He can be found on the web at www.agelessengines.com

