



Program

Thirteenth Annual AEHS Convention

Dayton, Ohio

September 27 - 30, 2016

Welcome to the Thirteenth Annual AEHS Convention!

The 2016 AEHS Convention will feature visits to the National Museum of the United States Air Force, which is celebrating its newly-opened fourth building housing presidential and research aircraft. These displays were formerly kept in cramped quarters on Wright Patterson AFB, so a new display space that no longer requires a bus ride will be a welcome addition.

The 2016 Convention coincides with the NMUSAF's WWI Dawn Patrol Rendezvous, which will follow on 1-2 October. Commemorating the 100th anniversary of World War I in Europe, the WWI Dawn Patrol features vintage WWI aircraft, radio-controlled models, era automobiles, period re-enactors, educational activities and a collector's show. Admission is free.

SCHEDULE

Tuesday 27 September (Holiday Inn Dayton-Fairborn Challenger/Discovery Room)

1400 to 1700 Registration with badge and program distribution.
1800 to 2200 Reception with light hors d'oeuvres plus a cash bar.

Wednesday 28 September (National Museum of the United States Air Force)

0800 to 0900 Meet in hotel lobby. Travel to NMUSAF by private automobile.
Group photograph at the NMUSAF.
0900 to 1700 Tour the NMUSAF on your own. Lunch on your own.
1700 to 1730 Return to Holiday Inn Dayton Fairborn.
Dinner and evening on your own.

Thursday 29 September (Holiday Inn Dayton-Fairborn Wright Room)

0800 to 0900 Presentation: Kip Lankenau - Aircraft Engines Before WWI
0900 to 1000 Presentation: Calum Douglas - Axis versus Allied Supercharger Technology
1000 to 1200 Presentation: Jeremy Kinney- WWII Propeller Development
1200 to 1300 Lunch Buffet (provided by the AEHS)
1300 to 1500 Presentation: Larry Rinek - US Air Force B-36 Peacemaker: Aero Engineering Excellence
1500 to 1600 Presentation: David Newill - The New Rolls-Royce Heritage Trust Allison Branch Museum
1600 to 1700 Presentation: Tom Fey - Bi-Directional Aircraft Engines

1800 to 2200 Banquet Buffet
After Dinner Speaker: Tony Wytenburg - Making New Classic Aero Engines

Friday 30 September (National Museum of the United States Air Force)

NMUSAF Restoration and Storage Facility Tour. See insert for details.

Presenters' Biographical Sketches

Kip Lankenau is the founder and driving force behind Kip Motor Company, celebrating its 25th anniversary as a parts, service and restoration facility for antique British, European, and exotic Domestic vehicles. Its KipAero Division focuses on the vintage aircraft market — rebuilding original components, manufacturing ignition, electrical and other parts, and full-size Sopwith aeroplane kits based on the original factory drawings and specifications. Although he graduated from Michigan State University with a degree in Business Administration, Kip is actually a lifelong historian, pilot and Victoria age engineer specializing in small batch production.

Calum Douglas, an engine designer by profession, designed his first engine at university and spent several years living and working in Germany as designer for Toyota Motorsport GmbH in Cologne. There he transferred their Formula One engine technology to road car engines. In Germany he developed the feeling that the work of German wartime engine designers had never been properly represented in the English language world, and is now completing a book on the history of aero-engine development during the Second World War. He also writes for *Race Engine Technology* magazine, and is a passionate researcher and aviation historian in his spare time.

Larry Rinek is a retired Technology Consultant, a recognized aviation historian and frequent speaker with a number of aero publications to his credit. Larry was a USAF officer, a former student pilot (Piper J-3C Cub), a trained engineer, and veteran of the U.S. aerospace industry. He is an active member of the AIAA and SAE technical societies, as well as the American Aviation Historical Society (AAHS), Wings of History (WOH), Society for Aviation History (SAH), and is a charter member of the Aircraft Engine Historical Society (AEHS). Larry also contributes to a number of aviation museums. He earned a BS in Industrial Engineering plus an MBA in Marketing, both from UCLA, and has over 40 years of business and technology consulting experience. In addition, Larry has been a guest lecturer in aero engineering (with a historical technical lessons-learned perspective), for eight universities since 2000.

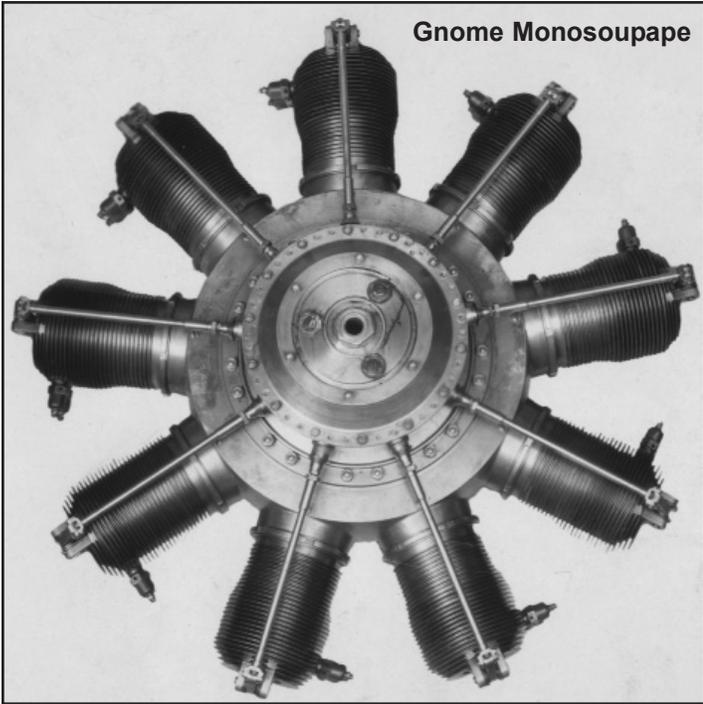
Tom Fey is a retired research pharmacologist (drug hunter) from the suburbs of Chicago who has a life-long interest in engines and the automobiles, motorcycles, boats, trains, and aircraft they power. The great piston era of the 1940s and '50s and Unlimited class air racing are of particular interest. The first glimpse of the contra-rotating propellers on the RB-51 world speed record holder began an unnatural fascination with propeller technology. Tom has written articles for air racing newsletters, prototyped electric radio-controlled aircraft, and gave talks on propeller technology at AEHS conventions and Oshkosh. With two kids well on their own and a patient wife, he has time for restoring WWII-era target drone engines, bicycle touring, researching obscure topics to figure out how things work, and unleashing those findings upon the AEHS membership.

Jeremy R. Kinney is Curator for Air Racing, Aircraft Propulsion, and American Military Aviation, 1919-1945 at the Smithsonian National Air and Space Museum. His research and curatorial responsibilities focus on American technology and aeronautics in the first half of the twentieth century with a specific emphasis on 1920s and 1930s military aviation, air racing, and aircraft propulsion. Kinney is the author of *Airplanes: The Life Story of a Technology* (Johns Hopkins University Press, 2008) and a contributor to the prize-winning series *The Wind and Beyond: A Documentary Journey into the History of Aerodynamics in America* published by NASA. He holds a Ph.D. in the history of technology from Auburn University, Alabama.

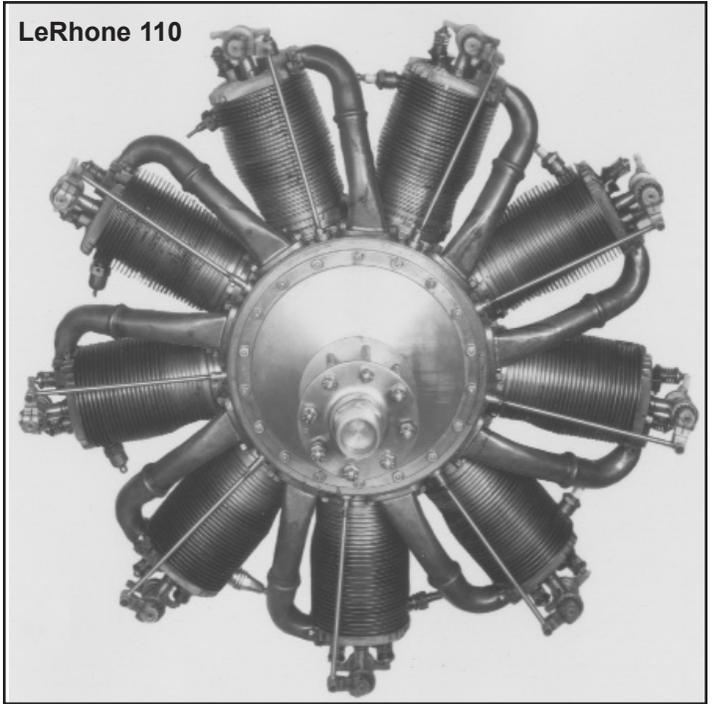
David B. Newill grew up with Aviation Heritage – looking up at the Wright Patterson AFB traffic pattern from the age of five. Later, his parents found they could drop off Dave and a friend at the original Air Force Museum early on summer mornings with \$5 for food and pick two exhibit-exhausted boys when the museum closed. Dave was the Heritage Officer at the Air Force Academy – and found himself attending the Ribbon Cutting of the new National Museum of the U.S.A.F. to represent the Air Force of the future. Along the way he became an Air Force Pilot, KC-135, with Commercial, Instrument, SEL, MEL, Glider ratings. His logbook includes three hops in the Wright B flyer and a Dragon Rapide. He is a degree engineer, with a Masters in Systems Mgt and an Associate Fellow of the AIAA. He is a retired Rolls-Royce Sr. Executive, Marketing & Strategy for the Helicopter group and President of Rolls-Royce Heritage Trust, Allison Branch, Inc.

Tony Wytenburg started his career in engineering as a fitter, turner, and machinist apprentice in 1977. He moved on to a production shop in 1982 and learned how to operate CNC lathes, back when old telex machines were used to punch paper tapes for the machine to read. He moved to Blenheim, spent seven years in maintenance at a meat processing plant, and was then introduced to working with aircraft as a civilian at RNZAF Base Woodbourne, where he manufactured tooling for the Rolls Royce Viper 680 engine.

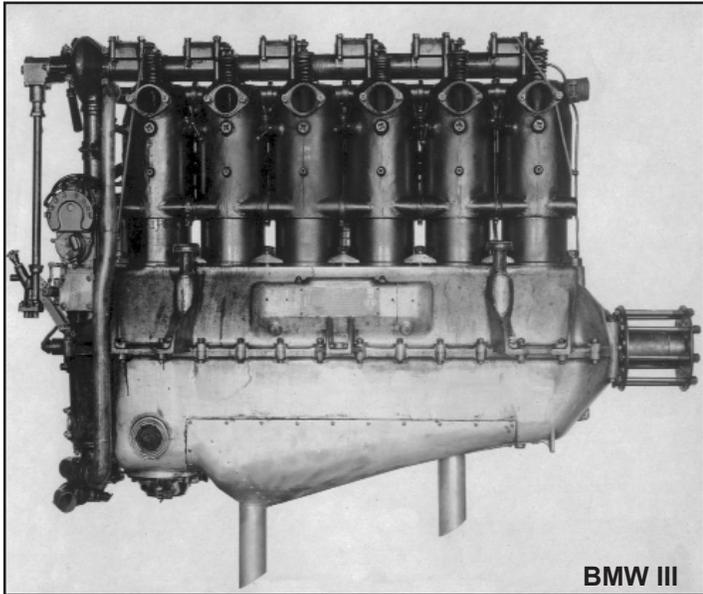
After a stint as production manager in a small machine and fabrication shop, he set up his own business, Classic Aero Machining Service, in a corner of a hangar alongside a vintage aircraft restorer and was tasked to create a RAF1a engine for film director Peter Jackson from derelict samples. Soon he was manufacturing restoration parts for vintage aircraft: P-40s, Lockheed 10s and 12s, Spitfires and many more. His interest in rotary engines came about from a rebuild of an original Gnome in his hangar which needed several parts made. CAMS completed the first Gnome rotary engine in a hundred years to be built from scratch. They have now completed three Gnome rotaries and are currently working on a restoring an original Gnome engine. Tony's business has taken over half of the hangar, and he now has three assistants. CAMS does not like saying no to a job, their motto being, "If they could build it 100 years ago, we can build it now."



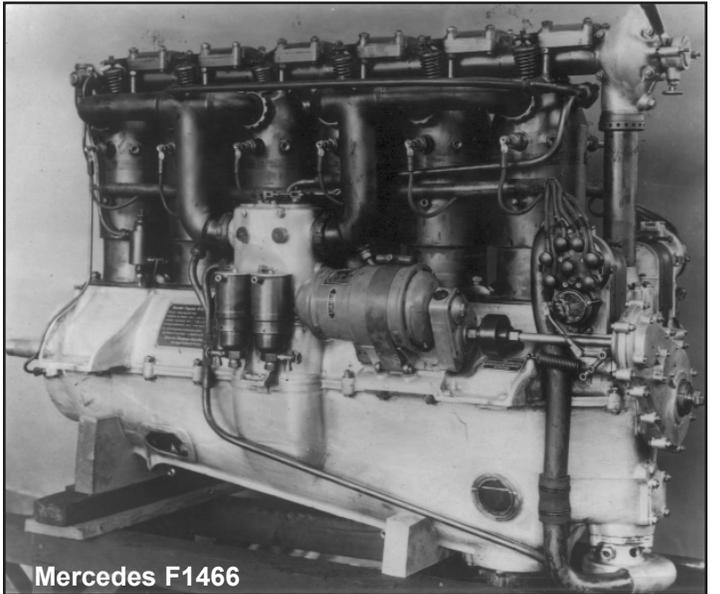
Gnome Monosoupape



LeRhone 110



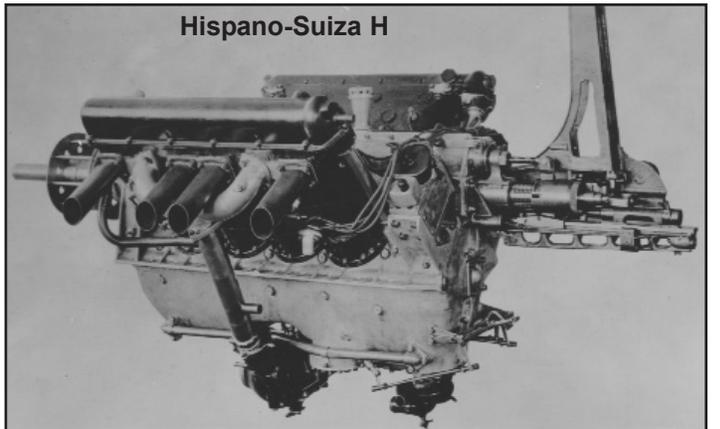
BMW III



Mercedes F1466



Austro-Daimler 200 hp



Hispano-Suiza H

Directions from Holiday Inn to NMUSAF

- 1) Take Colonel Glenn Hwy west. It will turn into Airway Rd.
- 2) Turn right onto Harshman Ave.
- 3) Take the ramp to Springfield St, turn right on Springfield St.
- 4) Turn right onto Bong St.
- 5) Follow Bong St west past the museum to the west parking lot.

Directions for the Friday 30 Sep NMUSAF Restoration and Storage Facility Tour

- 0900 - 0930 Meet in hotel lobby. Travel to NMUSAF by private automobile. Enter Gate 28B from Springfield. Turn left at the WWII control tower. Park where you can and make your way to the Outdoor Air Park.
- 0930 - 1000 Assemble near the bus at the Outdoor Air Park west end.
- 1000 - 1030 Take the bus onto Wright Patterson AFB.
- 1030 - (?) Tour the Restoration and Storage Facility.
- 1130 - 1200 Bus returns from Wright Patterson AFB.
You are on your own after the Tour completes.
Please see the WWI Dawn Patrol Rendezvous south of the NMUSAF.

Note: Tour and bus return times are approximate.

