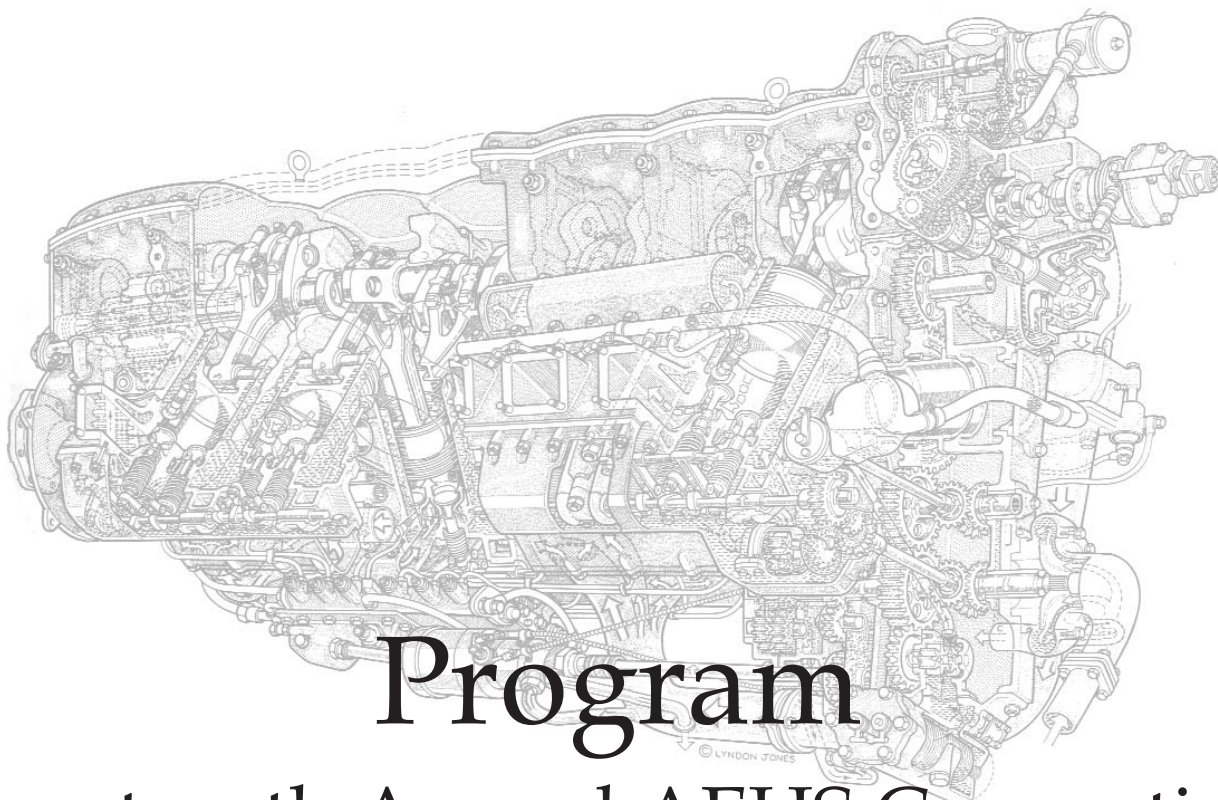




Aircraft Engine
Historical Society



Program

Fourteenth Annual AEHS Convention
Tucson, Arizona
October 3 - 6, 2017

Welcome to the Fourteenth Annual AEHS Convention!

The 2017 AEHS Convention will feature visits to the Pima Air & Space Museum (PASM) and the Titan Missile Museum (TMM), plus a day of informative presentations.

SCHEDULE

Tuesday 3 October (Hilton Garden Inn Tucson Airport Santa Rita Rooms B and C)

1400 to 1700 Registration with badge and program distribution

1800 to 2200 Reception with light hors d'oeuvres plus a cash bar

Wednesday 4 October (Pima Air & Space Museum)

0800 to 0830 Travel to the PASM by private automobile

0830 to 0900 Line up to enter the PASM as a group when doors open at 0900

0900 to 1000 Ticketing, group photo as AEHS Member Joe Crover presents the world's only McCulloch TSIR-5190 to the PASM

1000 to 1100 Tour the PASM on your own

1100 to 1245 309th AMARG bus tour; government-issued photo ID required

1245 to 1600 Lunch on your own, continue PASM tour on your own

1600 to 1630 PASM restoration facility tour

1630 to 1700 Tour the PASM on your own, return to the Hilton Garden Inn Tucson Airport

Dinner and evening on your own.

Thursday 5 October (Titan Missile Museum)

0900 to 1000 Travel to the TMM by private automobile

1030 to 1400 Tour the TMM

1400 Return to the Hilton Garden Inn Tucson Airport

Remainder of afternoon, evening, and dinner on your own

Friday 6 October (Hilton Garden Inn Tucson Airport Santa Rita Rooms B and C)

0800 to 1000 Presentation: Fred van der Horst - The Junkers Jumo 213

1000 to 1200 Discussion: Jeff LaVelle - Racing Lycoming Engines

1200 to 1300 Lunch Buffet (provided by the AEHS)

1300 to 1500 Presentation: Paul Christiansen - The Westinghouse J46

1500 to 1700 Presentation: John Leonard - Allison Special Projects

1800 to 2200 Cash Bar, Banquet Buffet

After Dinner Speaker: Bud Wheeler - The Modern V-1710 Allison

Presenters' Biographical Sketches

Fred van der Horst was trained as a physician and ran a hospital in Tanzania for two years before becoming a radiologist in 1979. He specialized in breast cancer screening and retired in 2005. From age seven Fred has had an interest in aviation, and later in the military history of WWII. He flew gliders in the 1990s and was trained to be a glider (maintenance) mechanic. It has become increasingly clear to him that availability of high performance engines was and still is a determining factor in the outcome of military conflicts. This has led to in-depth study of aircraft engine history, some of which resulted in presentations at previous AEHS Conventions. Fred resides with his wife in Hoevelaken, the Netherlands.

Jeff LaVelle of Mukilteo, Washington is the man to beat in the Reno National Championship Air Races Sport Class, having broken records nearly every time he has competed since 2010. Sport Class aircraft are experimental, kit-built, plans-built or amateur-built aircraft that are powered by an engine or engines displacing no more than 1,000 cubic inches. LaVelle flies Race # 39, a Glassair III powered by a highly-modified twin-turbocharged Lycoming TIO-580-EXP engine built by Ly-Con of Visalia, California to Lavelle's specifications. Lavelle began his series of Gold wins in 2010 at a speed of 339 mph. He won the Gold again in 2012 at 393 mph, in 2013 at 394 mph, and in 2014 at 399 mph. He again won in 2016 at 383 mph and in 2017 at 388.313 mph, just fast enough to stay ahead of the competition. LaVelle also set records for fastest qualifying speeds of over 400 mph nearly every time he competed. LaVelle's presentation will address what is involved in preparing aircraft engines for Sport Class air racing.

Paul Christiansen is a life-long aviation enthusiast, as well as a former U.S. Army Helicopter pilot who served in Vietnam and later as an instructor pilot. He had a 34 year career with IBM in various management and non-management roles, the last of which was as a quality assurance representative with world-wide responsibilities in government services. He joined AEHS in 2005 and later contributed an article to *Torque Meter* on the Caminez engine and its development. He has assisted in editing several articles for issues of *Torque Meter* and in building data indexes to National Archive records. Paul has volunteered for the last 17 years as a docent at the College Park Aviation Museum in College Park, MD. For the last several years he has been researching Westinghouse gas turbine engine projects and has authored two books, one about the Westinghouse J40 and another about the J46. He is currently working on a volume covering early Westinghouse engines, the 19A/B, 19XB-2B (J30), and the 9.5A/B.

John Leonard's grandfather worked at Allison from 1917 to 1952, and his father worked there from 1942 to 1972, thus Allison was an familiar part of his early life. John developed an interest in aviation at an early age and that has continued to the present time. After graduating from Purdue University, John worked in engineering departments at McDonnell Douglas in St. Louis for 33 years. After retiring in 1997 he worked in the controls department at Rolls-Royce in Indianapolis for 12 years. He became the chief archivist for the Allison Branch of the Rolls-Royce Heritage Trust. In this position he had opportunities to write articles for the Heritage Trust Journal, the American Aviation Historical Society, the American Institute of Aeronautics and Astronautics and to write two books on Allison history - one is a catalog of about 250 Allison engines and the other is a history of the first 30 years of the company. Because he had access to the Allison archives, he has been able to do research that provided new insights on details of Allison activities and products.

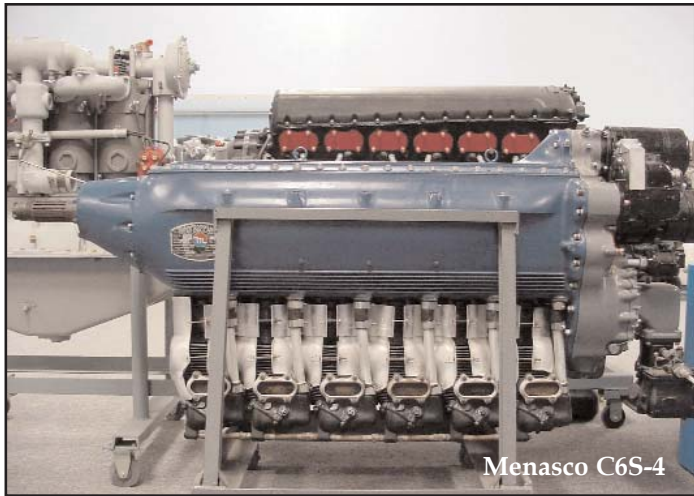
Bud Wheeler is a master engine builder, licensed A&P, and the President of Allison Competition Engines (ACE Allisons) in Latrobe, Pennsylvania. After years of rebuilding Allison V-1710 engines he was asked to provide the Allisons for the Santa Monica Museum of Flying new-manufacture YAK-3 program. This became the beginning of Mr. Wheeler devoting his full-time to aviation and the support of the Allison V-1710. He now has many satisfied customers from around the world and is known for his passion and expertise with the Allison engine, as his is the only strictly Allison overhaul shop in the world. He is also unique in being able to provide new FAA-approved parts, needed to keep the V-1710 flying and reliable. These parts have been designed to utilize modern materials and methods while equaling or bettering OEM parts. His top-to-bottom overhauls upgrade the engines and have established a standard for serviceability and reliability never before achieved. ACE Allisons supports the full range of V-1710 models, including the exotic V-1710-G6 two-stage engine. All of his overhauled V-1710 engines are run on the only completely instrumented dynamometer, providing comprehensive engineering data on air/fuel ratio, exhaust gas temperatures, and horsepower. Mr. Wheeler provides over 40 years of experience to the Warbird owner-operator community and will be addressing the conference on his experiences in building the modern V-1710 for 21st century Warbirds.



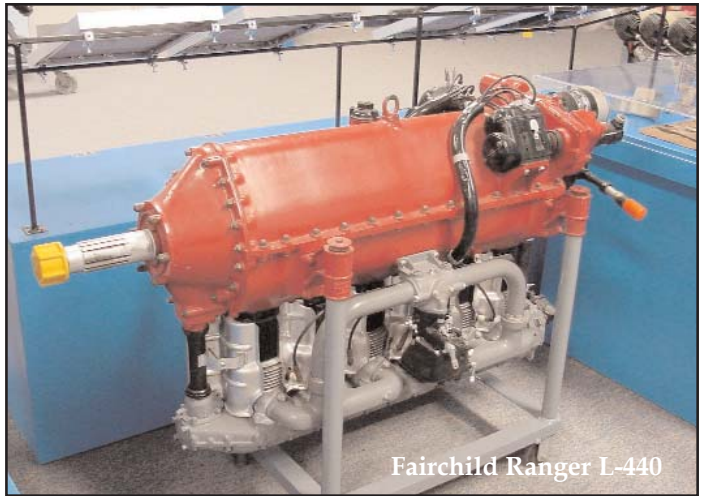
McCulloch TSIR-5190



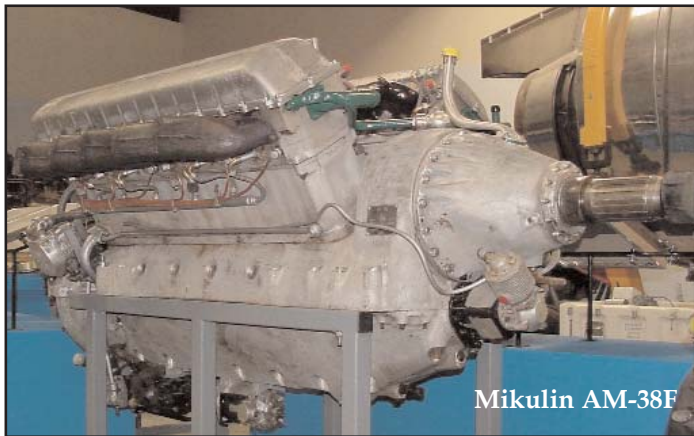
McCulloch TRAD-4180



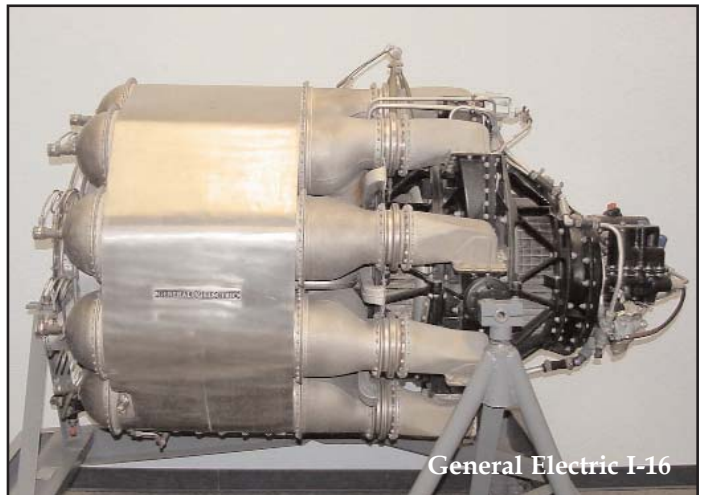
Menasco C6S-4



Fairchild Ranger L-440



Mikulin AM-38F



General Electric I-16

Pima Air & Space Museum Engines