

Short Rounds

The monthly newsletter of the Scott Hosier WWII Roundtable

Season 8, Number 3

November 2011

Welcome! The next meeting of the Scott Hosier World War II Roundtable is 7PM, Monday, November 14, 2011.

“Mayo Clinic Medical Personnel in the War” focuses on individuals who served both in the military and with the Mayo Clinic to aid in the war effort.

Dr. Fred H. Helmholz, Jr., M.D., Professor Emeritus of Mayo Clinic School of Medicine, performed high altitude research for the US Army Air Force as a member of the Mayo Clinic Aero Medical Unit.

Francis Wheelock is a veteran of the Battle of the Bulge, helped liberate the Dachau concentration camp, and worked for 46 years as an X-ray technician at the Mayo Clinic.



Charles A. Lindbergh, Jr. undergoing high altitude tests at the Mayo Clinic

Peter McConahey's father William M. McConahey was a surgeon with the 2nd Battalion, 344th Infantry Regiment, 90th Infantry Division who landed in France on D-Day +2. He served in Normandy through the Battle of the Bulge and beyond, and at a liberated concentration camp at Flossenberg was frustrated at not being able to save so many dying prisoners.

The program starts promptly at 7PM on November 14, 2011 at the Assembly of God Church, 4240 18th Ave NW, Rochester, MN. Come early to enjoy 1940's music starting at 6:30PM. A \$3 donation is requested, but students are admitted for free.

Reaching New Heights

As part of the November program, we will be showing the short film *“Reaching New Heights: Secret Stories of the Mayo Clinic Aero Medical Unit.”* This film was produced and directed for the Mayo Clinic by Mark Flaherty, based on the history compiled by Dr. Jan Stepanek, currently Medical Director Aerospace Medicine Program, Co-Director Simulation Center, Mayo Clinic Arizona.

To learn more about the Mayo Clinic Aero Medical Unit and to view this film online, go to <http://www.mayoclinic.org/aerospace-medicine/research.html>.

Battalion Surgeon

More about Dr. William McConahey's story can be read in his book *“Battalion Surgeon”* (1998, ASIN: B001MT3PQO).

You can also read and listen to his oral history at <http://lcweb2.loc.gov/diglib/vhp-stories/loc.natlib.afc2001001.01026/>.

Saipan Medallion Award

In 2004, the Commonwealth of the Northern Mariana Islands, which includes the islands of Saipan and Tinian, issued a medallion commemorating the 60th anniversary of its freedom from the Japanese. Marine Corps veteran Joseph P. Rysavy of Austin, Minnesota, fought on Saipan during WWII, and at the November roundtable event he will be awarded the Saipan medallion.

His grandson, Lieutenant Commander Joseph C. Rysavy, USN, was on Saipan during a Western Pacific deployment as a Weapons Officer on the *USS Los Angeles*, a fast attack submarine. While there, he flew an American flag in his grandfather's honor and later gave this flag to him for his 90th birthday.

NEXT TIME:



“Witnessing the Pearl Harbor Attack”

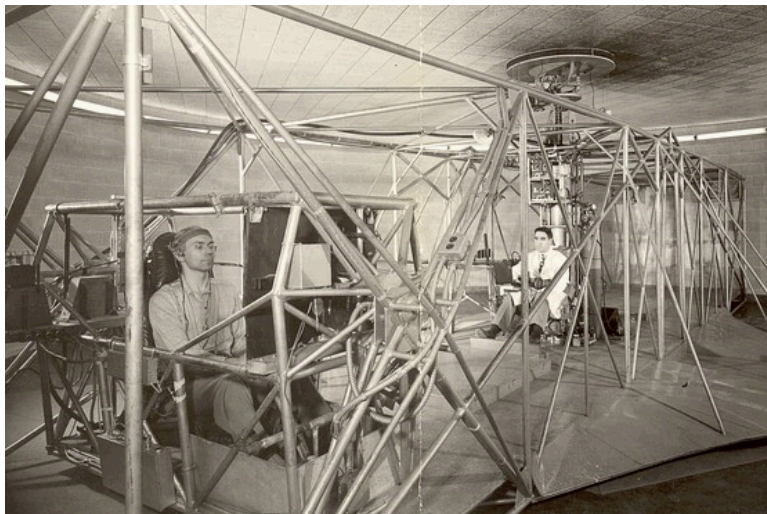
7PM, Monday, December 12, 2011

Speaker: Louis Bud Billmyer

Higher and Faster

In the first two decades of manned flight, most airplanes flew around 100mph and at altitudes of less than a few thousand feet. By the 1930's, improvements in engine performance and airframe materials and design led to higher and higher speeds and altitudes. By the start of World War 2, fighter aircraft flew in excess of 300mph and could reach altitudes over 30,000 feet. With this improved performance came problems due to the physiology of the human body.

In straight and level flight at constant speed, or at rest, the human body experiences the pull of gravity, which is normally 1 G. Any change in speed or direction results in acceleration, which is experienced similarly to gravity and is also measured in units of G. The faster an aircraft flies and the tighter it turns, the more G force is experienced by the pilot. Since most turning in an aircraft is performed by banking the wings and changing direction perpendicular to the plane of the wings, the pilot experiences positive G forces, that is, from the head to the feet. High G forces can prevent the heart from pumping enough blood into the brain, and the pilot can pass out. To prevent this, Mayo Clinic Aero Medical Unit doctors Earl H. Wood, Edward J. Baldes, and Charles Code developed a "G suit" which applied pressure to the lower body and legs when an aircraft and pilot were experiencing high G forces. This helps prevent blood from flowing out of the brain as quickly, allowing the pilot to turn faster than without it – a great advantage in air combat. These "G suits"

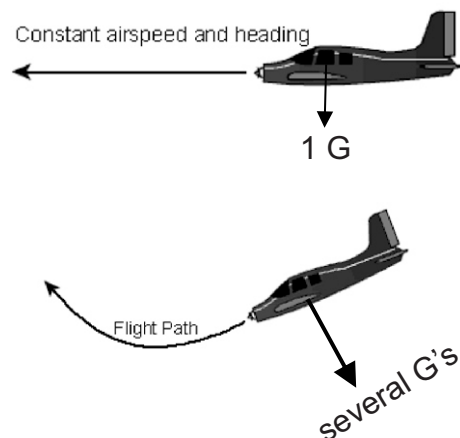


Mayo Clinic

Human Centrifuge at the Mayo Clinic

were tested by the Mayo Clinic in Rochester, flying a modified Army A-24 *Banshee* aircraft out of the old airfield near the Libby plant. The aircraft used was named the "G-Whiz" and could be seen flying loops and other aggressive aerobatic maneuvers in the skies over Rochester during the war. The Mayo Clinic also constructed and used a human centrifuge, the first of its kind in the US, to test the effects of G forces on humans.

A second challenge of high performance aircraft is the extreme altitudes at which they fly. At altitudes as low as



A change in the flight path causes G forces

10,000 feet, the lower air pressure creates a want of oxygen and can start to impair the physical and mental abilities of the pilot. Above 18,000 feet, oxygen want can result in blacking out, and prolonged exposure to altitude higher than 26,000 feet will likely cause death. Therefore, to allow pilots to fly and fight at higher altitudes for longer periods, it is necessary for them to breath supplementary oxygen through a mask. Developing an effective mask that would not otherwise impair an aircraft pilot or passenger was one of the contributions of the Mayo Clinic Aero Medical Unit during World War 2. In 1938, Mayo doctors Walter M. Boothby, W. Randolph Lovelace, and Arthur H. Bulbulian developed the "BLB" mask (named after their initials), which was used first by the British in the Battle of Britain and eventually evolved into the A-14 Diluter-Demand Oxygen Mask, used by thousands of Allied aircrew in WWII and later. This same technology was also put to clinical use, providing a safer alternative to oxygen tents for patients needing supplemental oxygen.

--Dave Allen

Sign the Petition

The Scott Hosier WWII Roundtable is a partner in the effort to establish the *Minnesota Veterans and Emergency Services Museum* in Rochester. This museum will honor our military veterans and others – police, fire, EMT, etc. – who put themselves in harm's way to protect our safety and preserve our freedom. Please sign the petition saying that you support this effort – there is no cost or obligation to you. For more information, check out the information table in the foyer or contact Jane Bisel at (507) 280-6888.

Bad Weather Cancellation

If any event of the Scott Hosier WWII Roundtable is cancelled due to bad weather, it will be announced on KROC, KTTC, and KNXR radio and websites.