Snapshots of the Past

A look back at the 1935-36 Women's Lecture Series at Langley Memorial Aeronautical Laboratory

During the winter of 1935-36, the 26 women of LMAL were presented with a series of classes arranged by Pearl Young and Henry J.E. Reid. Speakers from branches across the Laboratory addressed a host of topics that surveyed the aeronautical field, including Flight, Propulsion, Engines and Cylinders, Structures, Fuel, and Wind Tunnels. The lecture series culminated with a group celebration at the Langley Hotel on March 24, 1936.

Leading up to the event, an invitation was mailed to the participants inscribed with a tongue-in-cheek verse penned by Miss Iris Woodhouse:

"The last and final lecture
Will be given without question
On the twenty-fourth of March
Five to six.

Chiefs and speakers erudite
And the girls, both dumb and bright,
Are to gather at the Langley,
Just to mix.

There will be a little program
And perhaps a little "hokum",
Just a small informal gathering,
Nothing fixed.

So please signify acceptance
By informing us your presence
Will grace the Langley foyer,
(Not the Ritz!)"

At the tail-end of the party, the ladies presented customized medals of appreciation to their favorite—and in Floyd L. Thompson's case, least favorite—speakers. (Note the large medallion with string held by both Reid and Young in the foreground). A few notable awards highlighted in the event's transcript include...

"**Mr. Henry J.E. Reid** and **Ms. Pearl I. Young**, a fine example of the teamwork of the NACA. We have therefore decided to award you both a medal: Two-horse team."

"**Abe Silverstein**, your wind tunnel will be very useful three months hence. For your foresight: Golfer swinging."

"**Floyd Thompson**, a group of twenty women walked a mile to hear your speech. For your laziness: Boy asleep."

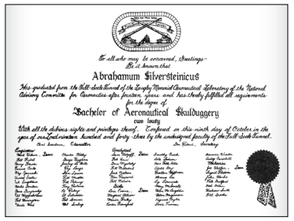
"**John Parkinson**, your talk was the favorite; it was the wettest. Three liquor bottles."

Top: *(from the left)* John Dawson, Starr Truscott, David Biermann, John Crowley, Floyd Thompson, E.W. Miller, Robert Spencer, E.G. Whitney, Jack Parkinson, Donald Wood
Middle: Carl Bioletti, Abe Silverstein, Jane Adams, Ruth Belle, Wilhelmina Krowl, Catherine Wood, Janie Burroughs, Betty Gilman, Martha Bloom, Ina Hoffman, Amy Zukoff, Vera Sharp, Indie Atkins
Front: Iris Woodhouse, Eastman Jacobs, Alice Rudeen, Pearl Young, Henry Reid, Virginia Tucker, Margaret Darden

Photo Credit: H.R. Clason, LMAL Photographic Section, 1936

The Guy Who Named it "Apollo"

Abe Silverstein is best known for his efforts in establishing NASA during the early years of the space age, where he promoted the use of liquid hydrogen, created Goddard Space Flight Center, and named Project Apollo (the image of the Greek god "riding his chariot across the Sun was appropriate to the grand scale of the program"). Silverstein got his start at LMAL in 1929 helping design and operate the Full-Scale Tunnel. Before he left in 1943, his staff playfully awarded him a Bachelor's degree in "Aeronautical Skullduggery".



LMAL Bulletin, Oct. 16-22, 1943 laddr.larc.nasa.gov

The Eccentric Genius

Aerodynamicist and engineer **Eastman Jacobs** contributed many advancements in aeronautics. As the head of Langley's tunnel section from 1928 to 1939, Jacobs pioneered the systematic, mathematical definition of airfoil profiles and oversaw experimental studies of airfoil shapes, ultimately providing designers with unprecedented data for new airplanes. His team's 1933 report on ***The Characteristics of 78 Related Airfoil Sections*** is regarded as one of the seminal publications from the NACA's early years.

NACA-TR-460 ntrs.nasa.gov

While recognized as a technical genius, Jacobs was also known to be eccentric. In 1938, he initiated the first U.S. experiment to achieve thermonuclear fusion, though further studies were cancelled due to the dangerous nature of the work and its lack of focus on aeronautics.

The Dynamic Trailblazer

Pearl Young was the first female professional hired by the NACA when she joined LMAL as a physicist in 1922. In 1929, Young was appointed Langley's first Chief Technical Editor, where she developed guidelines and procedures that vastly improved the quality of research published at the laboratory. Young's rigorous system required all prospective documents to first be reviewed by a panel of engineering peers, then vetted by her editorial staff for consistency, logical analysis, and accuracy. In 1943, Young published her ***Style Manual for Engineering Authors***, which served as the guiding reference resource for authors NACA-wide.

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Famous for their thoroughness and precision, research reports became the rock upon which the NACA built its reputation as one of the world's preeminent aeronautical institutions.

The Engineer-in-Charge

April 12, 1921: It was the age of the Jenny biplane, air mail was the latest sensation, and junior engineer **Henry Reid** had just reported to LMAL for his first day of work. Back then, the lab, still in the infancy of its research in the fledgling science of aeronautics, consisted of only 40 employees, one small wind tunnel, a flight hangar, and two old converted military barracks sitting on a muddy airfield owned by the U.S. army. Five years later, Reid was named Engineer-in-Charge.

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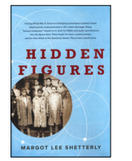
Dr. Reid grew up with the NACA in the air age and helped guide NASA into the space age. When he retired in 1961, he had served as the Director of Langley for all but 10 of its 44 years of existence, watching it grow—through peace and war—to a staff over 3,200 strong operating 40 major research facilities.

The Original Computer

When she first arrived on the Peninsula in the summer of 1935, **Virginia Tucker** discovered "a serious woman shortage" at LMAL. In addition to her work as one of Langley's first five human computers, she often travelled to universities and colleges across the south to recruit more women to join the NACA. By 1946, Tucker presided over a vastly expanded department that trained nearly 400 women and placed them into various computing sections across the facility.

In her 2010 best-selling book, ***Hidden Figures***, Margot Lee Shetterly writes: "Over the course of twelve years, Virginia Tucker had ascended from a subprofessional employee to the most powerful woman at the lab. She had done so much to transform the job of computer from a proto-clerical post into one of the laboratory's most valuable assets."



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