



Roxanah B. Yancey

Roxanah B. Yancey was head of the NACA Muroc Unit "computers."

Women were hired by the NACA and by most military branches as human "computers" to reduce raw data into something engineers could read.

In National Advisory Committee for Aeronautics (NACA) terminology of 1946, computers were employees who performed laborious and time-consuming mathematical calculations and data reduction from long strips of records generated by onboard aircraft instrumentation. Virtually without exception, computers were women; at least part of the rationale seems to have been the notion that the work was long and tedious, and men were not thought to have the patience to do it.

Though equipment changed over the years and most computers eventually found themselves programming and operating electronic computers, as well as doing other data processing tasks, being a computer initially meant long hours with a slide rule, hunched over

illuminated light boxes measuring line traces from grainy and obscure strips of oscillograph film. Computers suffered terrible eyestrain, and those who didn't begin by wearing glasses did so after a few years.

They were initially essential employees at the Muroc Flight Test Unit and NACA High-Speed Flight Research Station, taking the oscillograph flight records and "reducing" the data on them to make them useful to research engineers, who analyzed the data.

From the inception of the Muroc Unit in 1946 until 1960, Yancey led the computers and was one of the first two women who worked at what would later become Dryden. As was the practice of the day, Yancey and other "computers" were selected for earning a mathematics degree.

She accepted a position as an aerospace engineer in 1960, which she retained until her retirement in 1973. During her tenure, she was a supervisory mathematician and branch head of the Computing Service and an engineer in the Manned Flight Control branch.

Yancey was known for her knowledge in data reduction work on the Air Force XS-1 flight nine, Oct. 14, 1947, which was the first supersonic flight. Identifying traces on film, marking time to coordinate all data recordings and reading film deflections before converting them into engineering units for the legendary flight were key responsibilities, ones her nominators said she was well prepared to do.

She was considered by her nominators to be an excellent teacher as well as a mathematician. It was her responsibility to teach new members of the computer group - in the 1950s referred to as "mathematic aids," who did not have math degrees - to reduce and evaluate the flight records from research aircraft.

In the 1960s, when Yancey accepted a new job title as aerospace engineer, her new responsibilities included determining stability and control derivative characteristics for all three X-15 airplanes. The derivatives were used in flight planning for the X-15 simulator. Later, Yancey studied the characteristics of the aircraft at speeds exceeding Mach 6.

She died in April 1974.