

Reflections on SWE's 50th Anniversary
by SWE Charter Member Doris McNulty

Doris McNulty has provided us with some of her recollections of the early days of the Philadelphia Section and the changes that have taken place in engineering over the past 50 years.

Ms. McNulty was one of the 83 engineering students from 19 colleges who attended the conference for women engineering students held at the Sarah Van Rensselaer Dormitory at the Drexel Institute of Technology on 2-3 April 1949. Dr. Lillian Gilbreth, industrial engineer, mother of 12, and author of "Cheaper by the Dozen" also attended this meeting and was an inspiration to many of the students.

During the early years, the Philadelphia Section in conjunction with the Drexel Student Section would use the Drexel Lodge in West Chester for special activities. Drexel Evening College students were also active in the Section. The original SWE logo and the "OUTLOOK" masthead for the Section newsletter were designed by Ruby Singleton, an Evening College student.

Several former WAVES, including Dr. Grace Hopper and Carolyn White Buggy, were instrumental in helping the fledgling Section, just as many former WAVES helped the national organization.

In addition to dinner meetings with speakers, Section activities included technical/industrial tours and hosting the annual dinner and play in honor of graduating students. The Section also participated in the Eastern Seaboard Conference, which was an adjunct to the National annual Convention. Many of our charter and early SWE members were active at both the Section and National level as officers and as committee members.

In commenting on how engineering has changed over the past 50 years, Ms. McNulty remarked that the new tires are the greatest thing. Back in the 40s and early 50s, learning to change a tire and patch the inner tube were part of the driving experience. The second greatest thing is the availability of fresh fruits and vegetables year-round from growers all over the world. We used to be able to tell what month it was by the food we had for our tables.

Many other things have also changed in the way we do business, prepare specifications and drawings for bid and/or construction, reproduce drawings and other documents, communicate with one another, transport products, etc. Gone are the days of numerous carbon copies, blueprints, transatlantic cables, actual cash in your pay envelope, long arduous calculations to size equipment with oversized margins (e.g., transformer cores and windings), making elaborate drawings of assemblies to check dimensions (e.g., cross-section assemblies of steam turbines), vacuum tubes for radio and television, etc. The list goes on and on, but the basic things have not changed. Today's engineer still needs to be well grounded in mathematics and science, must be able to communicate verbally and in writing, must be a team member as well as a good individual producer, must be able to do "back-of-the-envelope" calculations to have a "gut" feeling for the quantity, and must be a good manager.

Perhaps the most difficult challenge for an engineer today, as in the past, is the ability to recognize when he/she has a problem and to develop proposed solutions that may range from the ridiculous to the sublime.