Paul McCullough Sutton

12/3/1921 - 2/21/2019

Paul McCullough Sutton was born in a house in Oneida, Ohio on December 3, 1921. His parents were Helen Nixon Sutton and Lester Levere Sutton, two school teachers who lived on a farm in Minerva, Ohio. Paul had an older brother Carl, and later a younger brother Fred. Paul went to school in a one-room school house, and learned to drive a Model-T Ford. It was the beginning of the 20th century and so many new technologies were developing. As Paul grew up, their lives were enriched with a telephone in the house, running water, radio and so many comforts we take for granted today.

Upon graduation from Minerva High School in 1939, Paul attended Harvard University on a four-year full-expense National Scholarship, graduating Magna cum Laude with a Bachelor of Science degree in physics. War duty in the U.S. Navy followed, then a return to academics. From 1946 to 1951, he continued his education at Columbia University where he earned both a M.A. and Ph.D degrees in physics and served as a graduate instructor and research associate in the physics department.

On active duty for three and a half years, during and after World War II, Sutton served a total of 11 years in the U.S. Naval Reserve, culminating in service as Training Officer for Division 3-72, 3rd Naval District, New York City, during the Korean War. In World War II, following officer's training he spent five months learning the operation and maintenance of a Top Secret acoustic homing torpedo, a successful weapon used against German submarines. He and his crew operated from Ascension Island, a volcanic cone in the center of the South Atlantic. The crew served a Naval B-24 squadron, VB-107, and, in 14 months, demolished four submarines with these torpedos.

As the war wound down, the B-24 squadron was transferred to England, and Sutton and crew were sent to North Carolina, where, just before V-E Day, off Norfolk, Virginia, the only lighter-than-air (blimp) squadron with torpedos sank another enemy submarine.

After the war, Sutton was assigned to Inspector of Naval Materials at 30 Church Street, New York City. (Today this spot is known as Ground Zero.) After six months, he was assigned to serve as Instrumentation Coordinator for the Ordinance Evaluation Group at the Bikini Atom Bomb Tests where he witnessed the fourth and fifth atom bomb explosions - historical events.

In the fall of 1946, upon return from testing atom bombs in the Bikini Atol, Paul Sutton entered Columbia University, and courted and married Doris Nichols, a published poet and associate editor of the Fine Editions Press. Today Doris is known as D.N. Sutton, and is the author of several books of poems and three novels. Paul and Doris are the parents of two daughters: Pamela M. Sutton, M.D. who worked abroad with the World Health Organization and was the director of the Barbara Ziegler Program of Palliative Care and Hospice at the North Broward Hospital District in Broward County, Florida; and Valerie J. Sutton, inventor of "SignWriting", a system for writing sign languages

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and body movement. Paul established a 501c3 non-profit organization in support of Valerie's work, called the Center for Sutton Movement Writing, which is both US Federal and California state tax-exempt. Paul was the secretary/treasurer from 1974-2011.

In the 1950s, Paul Sutton was employed as a section supervisor and research associate in the Research Laboratory of the Corning Glass Works in Corning, New York. In California from 1959 until 1986, Paul held the titles of Department Manager, Research Laboratory Manager, and Development Manager at the Ford Aerospace Corporation's California Division at Newport Beach. His work at Corning involved theory and experiments on transmission of electricity and ultrasound through glass and development of techniques to measure stress in glass. His work at Ford Aerospace was chiefly optics and laser related, as well as proposal preparation and research project administration.

Paul Sutton enjoyed his retirement years traveling with his wife Doris, spending time with his two grandsons in Florida, and in 1996 moved to La Jolla, California, where in 2008 and 2009 his two love songs, "Just A Dream Away" and "Just Say Forever", which were written to Doris in 1946 while Paul was on the USS Wharton in Bikini Atol, were finally published after 62 years. He passed away at age 97, on February 21, 2019, with his lovely bride of 72 years by his bedside.

Paul and Doris Sutton
La Jolla, 2018

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12/3/1921 - 2/21/2019

As Told by Paul Sutton in 2008:

1. August 14, 1945. Japan surrenders! World War II is over.
2. Lieutenant. Paul Sutton is required to remain in the Navy after the war, until June 1946 at minimum.
3. Paul was assigned to the Inspector of Naval Material Office (INM) at 30 Church Street, in New York City (close to what is known as Ground Zero today).
4. Naval officers oftentimes attended the Officer's Club at Delmonico's Hotel at 59th and Park Avenue in NYC. Paul met Doris at the Officer's Club. In his own words: "She was beautiful, intelligent, serious, a good dancer, and a poet too!"
5. Paul was a physicist, with a Bachelor's Degree from Harvard. The GI Bill made it possible for Paul to return to Graduate School at Columbia University, in the Fall of 1946.
6. So how did Paul spend his time from June 1946 until October? At the Atom Bomb Tests at Bikini Atol of course! Working with testing the bomb was good experience for a physicist, and helped him save money to go to Graduate School. Doris was left behind in New York, waiting for his return.
7. So Paul applied for the Physics Post in Navy Operations Crossroads - Bombs 4 & 5. He went to Washington D.C., hand-carrying his application from one office to another, finding Captain Chas Piggot of Ordinance Evaluation Group who needed an assistant.
8. Paul was transferred to Operation Crossroads, Navy Department, Washington D.C. in March, 1946. Doris visited Paul in April, 1946, in Washington. They met under ethe Cherry blossoms, which are great for poetry!
9. In May, 1946, Paul took the train to San Franciso, California. He was assigned to the U.S.S. Wharton (AP-7), which docked at Pearl Harbor May 5-12th. It was a busy nine days while at Pearl Harbor, for Paul, and on the last day, Paul waited in line for four hours to put a telephone call through to Doris. Paul was on The U.S.S. Wharton, which left for Bikini the next day.
10. The U.S.S. Wharton anchored in the center of the Bikini Lagoon. Paul and the crew checked all 76 target ships to see that the exposure plan was followed.
11. Bomb No. 4 was tested on July 1st, 1946. It was labelled TEST ABLE.
12. The report on the Test results were prepared. The exposure plan for the next bomb was then checked. A number of the target ships were moved or changed.
13. The grand piano in the U.S.S. Wharton wardroom looked inviting to Paul!
14. In-between Bomb Tests No. 4 and 5, Paul wrote a Love song and lyrics for Doris. The composition was developed in mid-July, 1946. She was "Just a Dream Away"!
15. Bomb No. 5 was tested on July 25, 1946. It was labelled TEST BAKER.
16. The report on the Test results were prepared.
17. Paul returned to Washington D.C. and resigned from active duty on October 25, 1946.
18. Doris and Paul went to Jones Beach on a Sunday in September, 1946. On the way back, they went to the Empire State Building and Paul finally proposed at the top of the Empire State Building, while looking at the distant twinkle.

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12/3/1921 - 2/21/2019

As Told by Doris Sutton in 2008:

When Japan bombed Pearl Harbor on December 7, 1941, war brought drama and change.

Paul felt fortunate to be allowed to complete his honors degree in Physics at Harvard College, graduating in June of 1943. He was then trained and assigned by the Navy to 3-1/2 years of ordnance duty in the Atlantic Theater, sent to Brazil but stationed on Ascension Island. He was in charge of a top-secret acoustic homing device that effectively destroyed some of the Nazi submarine activity which brought minerals to Germany from Sumatra, around the Cape of Good Hope and up the coast of Africa. As the war drew to a close, Paul was then assigned to a blimp squadron in Elizabeth City, North Carolina, where five days before the Germans surrendered, a blimp destroyed a German submarine using this device. To this day, full details about this weapon are not readily disclosed.

After the Japanese surrendered on August 14, 1945, Paul was sent to 30 Church Street in New York City, to help cancel Navy contracts. New York was a very hospitable place for military men, offering many service and social clubs, theaters and nightclubs. Even the famous Stork Club and 21 Club welcomed servicemen at low cost, providing a glamorous-background for this transition time. The popular Stage-door Canteen and many others are still recalled by many.

But it is the Officer's Club at the Hotel Delmonico, at 59th St and Park Avenue, that takes center stage for the Suttons. It was run by two New York socialites, Mrs. French and Mrs. Hull, who provided a lovely setting and both formal and informal dances, a pleasant spot to meet and mingle.

Paul met Doris there in September 1945. They became friends, went to theater, liked dancing. They shared many interests, including poetry. They celebrated New Year's Eve together. In March, 1946, when Paul transferred to Washington D.C. to coordinate bomb test targets for the Bikini bomb tests, he was encouraged when Doris came down to Washington to say goodbye to him under the Cherry Blossoms. It was the end of April.

On May 1st, Paul and Captain Piggott with other technical personnel took the train to San Francisco where the USS Wharton was anchored and they boarded the Wharton and sailed to Pearl Harbor. Nine busy days in Hawaii at Pearl Harbor followed outfitting target ships. On the tenth day, a four-hour wait to put a phone call through to Doris went through. It raised Paul's hopes that perhaps she cared about him.

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12/3/1921 - 2/21/2019

Paul Sutton's Research at Columbia University: "The Variation of the Elastic Constants of Crystalline Aluminum with Temperature between 63°K and 773°K" by Paul M. Sutton, Columbia University, New York, New York, April 28, 1953

The composite piezoelectric oscillator is employed to measure the adiabatic elastic moduli of crystalline aluminum over the temperature interval 63°K to 773°K. The data permit a valid extrapolation to 0°K. The Debye characteristic temperature of aluminum at 0°K, computed with these data, is 439°K. Various novel procedures designed to facilitate the use of the method are described.

Read this paper in
The American Physical Society
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Physical Review – 15 August 1953
Phys. Rev. 91, 816–821-Issue 4
URL: http://link.aps.org/abstract/PR/v91/p816
DOI: 10.1103/PhysRev.91.816

Physical Review – 15 December 1958
Volume 112, Issue 6
URL: http://prola.aps.org/toc/PR/v112/i6#ERRATA
https://journals.aps.org/pr/pdf/10.1103/PhysRev.112.2139

Read more about Paul Sutton's life, and listen to his love songs:

Paul M Sutton
http://www.paulmsutton.org

and

Paul McCullough Sutton
Plaque & Biography
Mt Soledad National Veterans Memorial
https://www.soledadmemorial.com/plaque/15893/

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Your Family Is Proud
of Your Service

Paul McCullough Sutton

Lieutenant

U. S. Navy Reserve

World War II - Korean Era

Lieutenant

MEDALS-RIBBONS: American Campaign, European-African-Middle Eastern Campaign, World War II Victory

As a Physicist, Paul coordinated instrumentation to test Atom Bomb Numbers 4 and 5 in Bikini Atoll. He concluded his Naval career as the Commanding Officer of the 72nd Division, New York State Naval Militia.

USS Wharton AP-7

Atomic Bomb