

Surge Protection Hall of Fame



David W Jackson

January 2012

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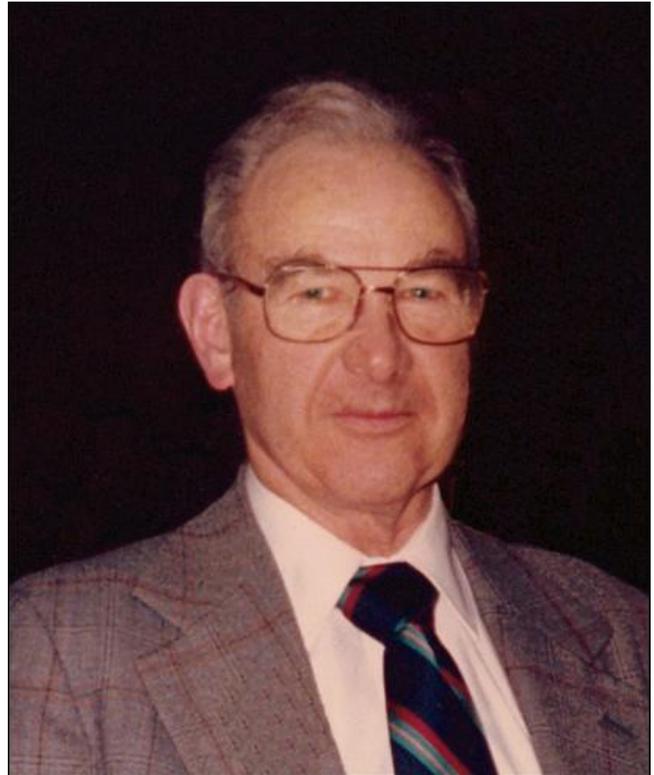
Champion of Surge Protection Standards

Dave Jackson was an outstanding engineer in his own right with more than a 61 year career as a consultant in power systems design.

Dave Jackson was destined to be an engineer from before he was born. His grandfather Dugald C Jackson Sr., was an early pioneer in electrical engineering who was President of the AIEE (later IEEE) from 1910-1911. He was head of the electrical engineering department at MIT before WWI. During his service in WWI he served in France under General Pershing as the person responsible for keeping the troops powered with electricity. After the War, Dugald Sr. started the Jackson and Moreland Engineering Firm and directed his company until 1938 when he retired. Dugald Sr. had many accomplishments during his illustrious tenure in the industry and received the Edison Medal from the AIEE in 1938. More recently, Dugald C Jackson Sr was inducted into the [IEEE Engineering Hall of Fame](#).

Dave's father Dugald C Jackson Jr was also an accomplished electrical engineering professor at numerous universities. Dugald Jr, was a professor at The University of Kansas, Director at Illinois Institute of Technology and later Dean of Engineering at Notre Dame.

From an early age, Dave was exposed to the life of academia. He tells a great story of his childhood at The University of Kansas where he worked for the Athletic Director as a courier boy and in the process of performing his duties he met several famous people including Amelia



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Earhart, Bill Tilden, Admiral Richard E Byrd, Harry Lauder and surely many others.

At the time he was ready to attend college, his father was temporally unemployed and funds to attend his father's alma mater MIT were not available. Dave applied to Carnegie Mellon but was turned down there, however he was offered a scholarship at Yale, which he gladly took. Dave credits his father as saying Yale was twenty years behind MIT, but that will have to do.

He was supposed to graduate in June of 1943, but because of the War Effort at Yale, he was accelerated by continuing his educations during the summers. While at Yale, he joined the Army ROTC where he trained with the last horse

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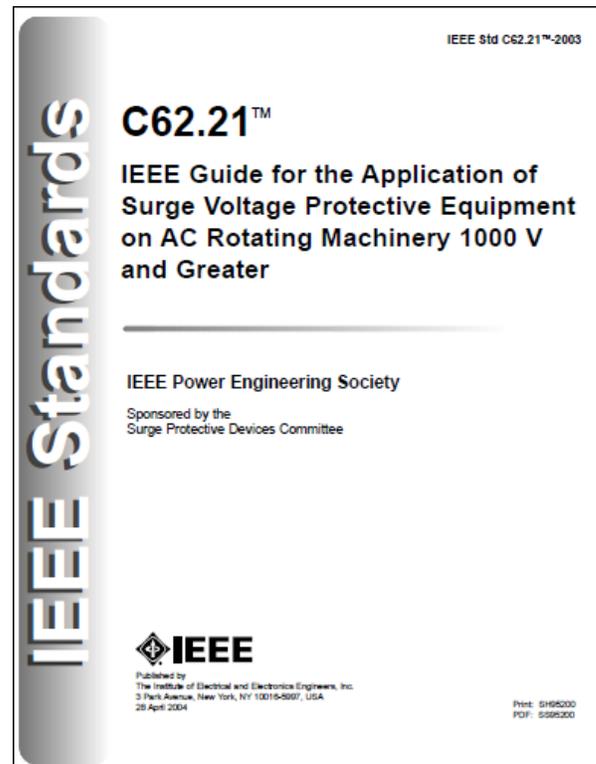
drawn field artillery battery in the US Army. He learned to ride the wheel horse and the lead horse. They handled 75mm cannons. Before he graduated, they converted to truck drawn units. Though he trained with the Army ROTC, after graduating, he joined the Navy where they had more engineering opportunities. He served from 1943 to 1946 in the US Navy.

After the Navy, he joined his grandfathers firm Jackson and Moreland, however his grandfather was no longer associated with the firm since retirement in 1938.

At Jackson and Moreland, Dave was a drafter for some time before graduating to higher-level engineering. In 1960, he attended his first Surge Protective Devices Committee meeting in New Orleans. He was invited to join them because he had written a paper on the subject of surge protection of rotating machinery for the Boston Section of AIEE. He was involved in protection of rotating machinery from his very first meeting until he retired in 2008. In 1981, the Rotating Machinery Committee of the IEEE published a new standard and Dave strongly disagreed with the protection recommendations. He wrote a dissenting opinion. A few years later, he joined forces with the Edison Electric Institute to petition EPRI to run fundamental research on motor and generator protection.

In 1990, EPRI published its final report on the Surge Protection of Generator. Ontario Hydro and Rensselaer Polytechnic Institute were the primary contractors on the project. Dave Jackson's name does not appear in the report, but he is credited with initiating the project.

By then Dave had managed to become Chair of the SPD working group responsible for C62.21, the "IEEE Guide for the Application of Surge Voltage Protective Equipment on AC Rotating Machinery 1000 V and Greater."



From 1990 to 2003 Dave Jackson worked tirelessly on the application guide and almost single handedly brought it to fruition.

Besides his standards work, Dave worked for 4 firms during his career, Jackson and Moreland, United Engineers and Constructors, and Charles T. Main. During those years, he designed the power supply for an astronaut's training facility in Langley Virginia to simulate landing of some sort, he designed the power system for the GE Space Technology Center in Pennsylvania where satellite testing took place, Wind Tunnels in Brazil and the US.

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For us who knew him personally, he was a wealth of knowledge in all areas of power systems. Working with him was always a pleasure and challenge to keep up with him.

In January 2008 he sent his Farewell Email to his colleagues in the IEEE:

To all of my IEEE friends and others who have helped me during the last 21 years while I have been employed full and part-time at R. W Beck, and the previous 40 years at Jackson & Moreland, United Engineers and Constructors, and Charles T. Main.

I will be leaving Beck this week. My strength, endurance and balance, and the need for my services at Beck, have declined substantially in recent months. Barbara's need for me at home has increased; I now do most of the shopping and cooking. So it is time to say Good Bye to employed or consultant professional engineering practice. Thank you all for your support and companionship during the 61 years of my professional working life, which began as an Ensign in the USNR on active duty in 1943, and as an electrical designer on a drafting board in 1946. It has been a rewarding and frequently a fun time, so I thank you all for your part in my life to date.

To my IEEE Surge Protective Devices Committee friends, I will be attempting to continue my standards work at home using my laptop (wireless link) and home computer (wire pair telephone link). It is possible that I may be able to afford to attend one SPDC meeting a year. This cannot be determined until I can estimate the cost.

I normally check my home emails about twice a week. Although I do use a cell phone, I rarely turn it on to receive calls except by pre-arrangement.

If any of you encounter problems or issues within my areas of knowledge and experience which you wish to talk through or seek a free opinion, I will be pleased to help, and thus repay in part for the help I have received from others.

Farewell and Godspeed to those of you with whom I may not again have the privilege of communication or companionship. I wish you all happy and satisfying careers and lives. To achieve this remember: "Care and love of wife and family take precedence before employer, work and community commitments."

I was fortunate enough to interview Dave in December 2009 and recorded most of the conversation. In 2010, Dave passed away.

With his passing, we have lost a great one.



Dave Jackson and Francois Martzloff at SPD meeting in 2006

By Jonathan Woodworth January 2012