

## **Dr. Palmer Dyal, Ph.D. FN'80 10/27/33 – 8/7/18**

Palmer was a physicist and space scientist who, in his job with NASA, made significant contributions to multiple Apollo, Pioneer, and Voyager projects.

Among other achievements, He designed instruments that were left on the moon during the Apollo missions.

His studies of the magnetosphere were key to understanding the electromagnetic effects of nuclear explosions.

The importance of his work was made clear to me when I receive a call earlier this year from a researcher at the Institute of Defense Analysis – part of the Department of Defense. They were trying to contact Palmer to get their hands on some data that he developed in 2006!

Certainly a testament to the persistence of the value of his contributions to his field.

### **DYAL--Palmer,**

was a physicist whose research greatly extended the boundaries of our understanding of magnetics, establishing the history of the physical state of our moon, opening the door for future scientists to research the vast influences of magnetics in the universe. He died August 7, 2018 from injuries suffered from a fall on his morning run. Born October 27, 1933 in Odin, Indiana to Roland Dyal, manager at Kroger grocery and Stella (Sims) Dyal, former telephone operator, Palmer grew up in a family of scantily softened harsh realities. Palmer's family left Indiana in the mid nineteen thirties driving west with all their possessions. Along the way they decided to abandon a planned move to Seattle and settle instead as farmers in Walford, Iowa in order to survive the Depression. Palmer attended a one room school house in Walford and earned his money by hunting and trapping during his free time. He put himself through Coe College, graduating with a degree in Physical Chemistry, and then studied at the [University of Illinois](#) with Nobel Laureate John Bardeen, ultimately

gaining a PhD in Physics in 1959. In 1978 he received an honorary doctorate from Coe College. At the Air Force Weapons Laboratory in Albuquerque, New Mexico Captain Dyal worked on the magnetics of high altitude nuclear explosions, one of which, the Starfish Prime launch of July 9, 1962 accidentally tripped most circuit breakers in Hawaii. Dr. Dyal worked at [NASA](#) Ames Research Center on magnetics and astronomy. He was a principal investigator, building the magnetometers to study the permanent and transient magnetic fields of the moon on Apollo 12, 14, 15 and 16. Those missions collectively carried four stationary and two portable magnetometers built by his teams of scientists on stunningly successful missions bringing back data that are still used today. He subsequently worked on the Pioneer 10 and 11 and Voyager missions, happy to be on the team sending the first man-made objects beyond the solar system. Voyager is still travelling and Pioneer 10 made history long after its decommission date in 1997. In 2002, NASA sent birthday greetings for Pioneer 10's 30th birthday and in a little more than the speed of light it answered back. Dr. Dyal was awarded the Exceptional Scientific Achievement Award in 1972. He was a member of The Explorer's Club in New York and enjoyed bringing his wife Gladys to the club gatherings in Northern California. After his fatal fall running on the hill trails near his home, his family is only consoled knowing that he died doing what he loved: running in Nature and discussing philosophy with his good friend and physical trainer Jim Colvin. Palmer Dyal is survived by his beloved wife of 62 years, the former Gladys Wiley of Palo, Iowa, their daughter, Jeanette Latta (Robert) of Los Altos, California, son, Gordon (Jill) of Greenwich, Connecticut, their granddaughter: Tabitha, grandsons: Nicholas, Evan, Andrew, William, Thomas and Graydon, and his siblings, Janet Bostwick (Robert) of Green Valley, Arizona and Kay Dyal (Doris) of Mission, Texas.

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