



# Farewell to Ken Randle

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By **Charlie Vono**, Col, USAF Retired



On 3 September 2011, our colleague and friend, Ken Randle, passed at the age of 88 after a long and distinguished career in aerospace. Ken served in the Navy in World War II. After the war, Ken

obtained his pilot's license and engineering degree from the University of Michigan, and worked in the aerospace industry until his retirement in 1986.

**K**EN WAS PASSIONATE about his causes and a delightful friend. Throughout his career Ken had a driving enthusiasm for aerospace and a spirit of exploration that kept him engaged as a leading aerospace advocate. Ken had diabetes and his health was failing for the last several years. Despite this, and right up to his last days, he remained positive to all around him and active in AIAA and the Utah Engineers Council.

## Ken and the Grand Tour

During the decades he was with us, Ken worked on many aerospace-related projects and programs. He spent his first year at the Jet Propulsion Laboratory (JPL) working on the airframe design of the Sergeant Missile System. He was the engineering manager of the Shrike Missile System and held engineering management positions until he retired in December 1986. But the stories he told that seem most appropriate at this time are those associated with the Voyager missions.

As Ken's days on this Earth grew shorter he thought back to his days at Sperry, here in

Utah, winning a contract in 1966 to help design the Voyager Grand Tour of the Solar System. As Ken's career progressed, so did the Grand Tour. Voyager 1 and 2 both launched in 1977 as Ken's aerospace career was well underway. Those of us old enough to remember can recall our thrill as the Voyagers visited Jupiter, Saturn, Uranus, Neptune, and numerous moons. Around the time Ken retired, Voyager 1 and 2 had completed their grand tour of the solar system and their mission was redefined to interstellar exploration. The last quarter century they have been transiting the outer reaches of our solar system. Although not on Voyagers' travel itinerary, many think of the farthest point of Pluto's orbit, at 6.8 light hours, as the limit of our Solar System. The actual "city limits" are at approximately 33 light hours at the heliosheath. (See Figure 1). This is the last point where the surrounding plasma particles are dominated by the supersonic solar wind.

Ken Randle wrote the following as a personal memoir of his work for NASA at the Sperry Corporation.

"When I was working for the Sperry Corporation in the sixties, we submitted a proposal to the Jet Propulsion Laboratory (JPL) to provide support for their unmanned space exploration programs. Our proposal won and, in July 1966, I took a team of twenty-three engineers to JPL. I had two responsibilities: manage the team and provide the configuration design of spacecraft for the Future Projects Study team."

One of the Future Projects studies was for a grand tour of the outer planets, an ambitious idea that became the Voyager mission.

Back in the sixties, Gary Flandro, a former employee of Ken's at Sperry, and a JPL employee on the study team, discovered that the alignment of the outer planets would make it possible to use a gravity assist from Jupiter to go to Saturn and on to Uranus and Neptune. The launch had to take place between 1976 and 1979 to take advantage of an alignment that occurs only once every 175 years.

For this discovery, Flandro received an award from the British Interplanetary Society.

"At the time, Voyager was the most complex unmanned machine ever designed. There had to be a boom for the radioisotope thermoelectric generator, another boom for the magnetometer, a planetary astronomy plasma-wave antenna, high-gain antenna, location for a plasma detector, cosmic-ray detector, low-energy-charged-particle detector, infrared interferometer spectrometer and radiometer, and cameras. Voyager would have to survive the intense radiation at Jupiter and operate almost flawlessly for more than a decade. The new spacecraft would need the decision-making

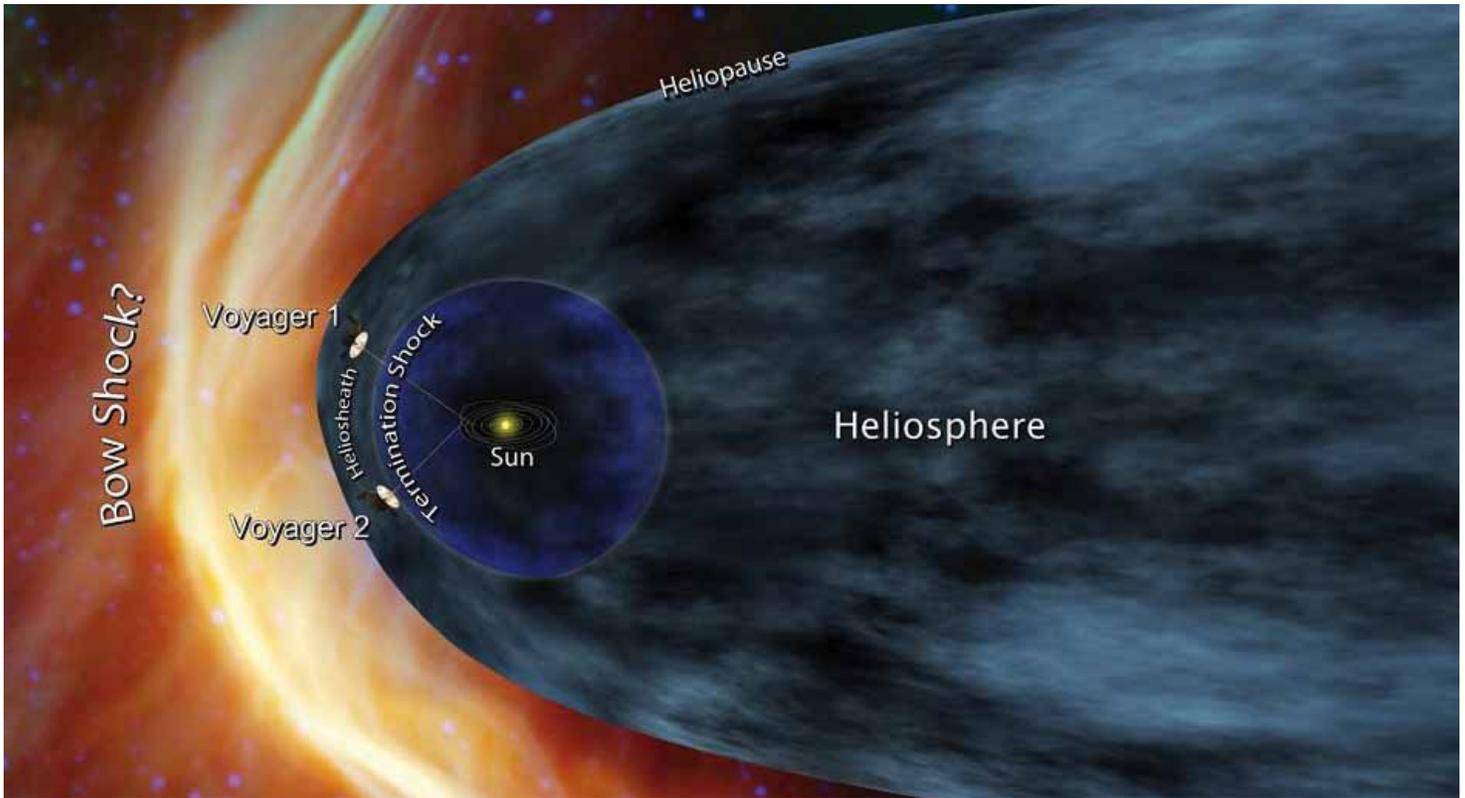


Figure 1. Voyager transits the heliosheath on its way to interstellar space. Illustration courtesy NASA.

capability to detect and react to a variety of internal problems, since command times from Earth would stretch to hours during the long flight. The reliability challenges were far greater than for any other spacecraft ever designed.

“We succeeded even better than we expected.”

Poignantly, as Ken departs, Voyager 1 is currently in the last few light minutes of the heliosheath on its way to interstellar space.

### Ken’s Mission to Support Public Understanding of Space Exploration

Ken’s enduring goal had been to increase public understanding of the value of human spaceflight and support for future exploration.

For four decades, to help recognize and celebrate space exploration achievements, Ken had been working with J. David Baxter, president of the Utah Space Association, to promote Space Exploration Day (July 20) and U.S. Space Observance Week (July 16–24), which coincide with the dates of the historic liftoff, landing, and return of Apollo 11 in 1969. Baxter conceived the idea of a celebration on the anniversary of the Apollo 11 mission while he was still a junior at East High School in Salt Lake City. In 1972, Flandro (of Voyager fame, mentioned above, and a member of the University of Utah faculty) and Ken served as advisors to help Baxter form the Utah Space Association.

Senator Frank E. (Ted) Moss of Utah introduced the Senate Joint Resolution in Congress in 1976. The Space Exploration Day

Resolution passed in the Senate as an annual observation, but it was amended in the House of Representatives to apply for only one year. It was for these efforts in pushing for recognition of the first landing of men on the moon by Apollo 11 and for other AIAA activities that Ken was given the Distinguished Service Award by AIAA in January 1977.

In 1984, Senator E. J. (Jake) Garn of Utah introduced a Senate Joint Resolution for Space Exploration Day to celebrate the fifteenth anniversary of Apollo 11 landing on the moon. It passed both the Senate and House of Representatives unanimously. President Reagan invited all the Apollo astronauts for a reception at the White House. Ken received an invitation as well. After the reception, the celebration moved to the East Room of the White House, where Ken got to witness President Reagan signing the Space Exploration Day Proclamation.

From 1981 through 1989, Ken had gotten Proclamations or Statements of Support from all fifty governors plus Puerto Rico as a result of many phone calls and letters. Presidential proclamations were obtained starting with President Nixon on the fifth anniversary of Apollo 11 through President Clinton. Ken’s as-yet-unfulfilled goal is for a presidential order that will permanently establish Space Exploration Day as a nonpaid commemorative holiday.

Ken’s related efforts over the years have included taking four high school students (including Baxter) to the Apollo 17

► **FAREWELL** | continued on page 18



► **FAREWELL** | continued from page 17

launch—the first Apollo night launch. On September 14, 1971, as program chair of the Utah section of AIAA, Ken organized a dinner meeting to host the Apollo 15 astronauts, their wives, and Dr. James Fletcher (then NASA Administrator). There were 786 people in attendance. In October of 1975, as chair of the Utah Engineers Council, Ken coordinated a gathering of Apollo and Soyuz astronauts, cosmonauts, and their wives at the Hotel Utah in Salt Lake City.

**A Few Last Words**

This impressive man was born March 4, 1923 in Stockton, Kansas to Melvin W. and Mildred M. Randle. He grew up in Stockton. He married Faye Crawford on June 28, 1947, in Hubbard, Ohio. Ken is survived by his wife, Faye; four sons, David, Donald, Timothy, and Paul; five grandchildren and his sister, Melva Sommerfield.

Ken was definitely not one-dimensional. For instance, he served the El Segundo Methodist Church as Building Fund Treasurer and Finance Committee Chairman, the Holladay Utah United Church of Christ as Finance Committee Chairman, and the Utah Christ United Methodist Church as Treasurer for five years and later as the Finance Committee Chairman. Ken also served the UCC WHALE Center as Treasurer for 18 years. He loved his family, friends, bridge, golf, reading, University of Michigan Football, attending several Michigan Bowl games, and was a 22-year Jazz season ticket holder. He loved to travel, having visited all 50 states and 41 countries on six continents.

As mentioned, Ken was passionate about his professional societies and the promotion of aerospace.

Ken was Phi Kappa Phi. He served on the National Membership and Career

Enhancement Committees of AIAA from 1973–1987. He was Utah Engineers Council (UEC) Chairman for 1974–5. Ken received the UEC Outstanding Service Award in 1975. In February 2008, Ken received the UEC “Lifetime Service Award.” Ken received the AIAA Sustained Service Award in 2000, the first year it was offered.

Ken was Chairman of the United States Space Observance Proclamation Committee from 1972-1994 to commemorate the anniversary of the first landing of men on the Moon by Apollo 11 on July 20, 1969.

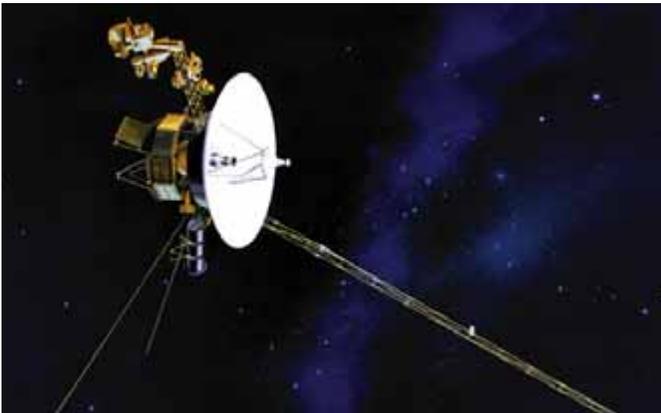
Both Ken and the Voyager will undoubtedly be exploring new frontiers. Let us learn like Ken did to adapt to the new, and continue our journey of discovery. ▣

*About the Author: Charlie Vono is a retired AF colonel, engineering manager for a major defense contractor, and fellow pilot and friend of Ken Randle, with whom he worked closely in the AIAA.*

**For those wishing to honor Ken’s memory, contributions can be made to the American Diabetes Association, the American Heart Association, or the Christ United Methodist Church Memorial Fund. You can help Ken permanently establish Space Exploration Day as a nonpaid commemorative holiday by visiting <http://www.spaceexplorationday.us/>.**

Sunday, March 1st, 2009, Ken had his family gathered around at his hospital bed. He had had another difficult episode and had life support keeping him with us. He had decided it was time to disconnect the life support and let nature take its course, but first he wanted to talk to me as the current chair of the Utah AIAA. He had some wonderful memorabilia that he had collected throughout his lifetime career and he was concerned that it would get a good home after he left. I was deeply touched and more than delighted to ease his mind and volunteer our resources to

provide a good forum. Typically for Ken, he fooled us all. He got stronger and spent several years more promoting aerospace with us. Currently, the Utah Section of the AIAA is working with the Hill Aerospace Museum to establish an AIAA display where memorabilia of Ken’s career and professional associations can be on permanent display for all to see. If you would like to help, contact us at [utah.aiaa@gmail.com](mailto:utah.aiaa@gmail.com). If you have stories to share about Ken, Ken’s son, Dave, would love to hear from you at [daverandle@mac.com](mailto:daverandle@mac.com). ▣



**For more information about Voyager, try these links:**

- <http://www.voyager.jpl.nasa.gov/>
- <http://voyager.jpl.nasa.gov/mission/interstellar.html>
- <http://planetary.org/explore/topics/voyager/>
- Hear Ken in his own words at: <http://www.youtube.com/watch?v=OazHurVaDjE>  
Search for Ken Randle Space.
- For Ken’s full article quoted above, see [http://www.nasa.gov/offices/oc/oc/ask/issues/38/38s\\_NASA\\_past.html](http://www.nasa.gov/offices/oc/oc/ask/issues/38/38s_NASA_past.html)
- Ken’s obituary can be found on line at the Salt Lake Tribune: <http://www.legacy.com/obituaries/saltlaketribune>