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WORLD | OBITUARIES

## Klein Gilhousen, a Qualcomm Founder, Developed Mobile Technology and Fostered Philanthropy: 1942-2016

Executive held 55 U.S. patents, flew airplanes and gliders, and founded a seminary



Klein Gilhousen in 2009. He was one of the seven founders of Qualcomm and helped adapt a technology called code division multiple access, or CDMA, to increase the capacity of cellphone networks. *PHOTO:*

*INTERNATIONAL AEROBATIC CLUB*

By **JAMES R. HAGERTY**

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Klein Gilhousen made his fortune in San Diego, Calif., in the 1980s as a developer of cellphone technology. After the murder of his daughter April in 1989, he and his wife, Karen, moved to Montana, took up ranching and philanthropy, and helped found a seminary.

Mr. Gilhousen died April 14 of complications from his treatment for lymphoma. He was 74.

As one of the seven founders of Qualcomm Inc., he helped adapt a technology called code division multiple access, or CDMA, to increase the capacity of cellphone networks. Qualcomm thrived as that technology was used in billions of phones.

He held 55 U.S. patents. He flew airplanes and gliders. He played the trumpet, guitar and fluegelhorn. “He was a polymath—incredibly gifted,” said Jay Smith, president of the Yellowstone Theological Institute, largely funded by the Gilhousen family.

Klein Shaw Gilhousen was born on April 13, 1942, in West Lafayette, Ohio. Because his father was in the Air Force, the family moved frequently and lived in places including Fairborn, Ohio, Lebanon, Ill., and Newfoundland, Canada. Young Klein delivered newspapers and built a ham radio set, a hobby that nourished his later work in telecommunications.

“He would sit and read encyclopedias front to back,” said Patti Gilhousen Guptill, his sister.

After graduating from high school in San Antonio, he attended the Air Force Academy in Colorado Springs and then the University of California, Los Angeles, where he received an engineering degree. He met Karen Coulter at a swimming pool in Glendale, Calif., and they married in 1967. Even after decades of marriage, he sometimes joked that she was his “trophy wife.”

Among his early employers was Linkabit Corp., a developer of military-satellite technology headed by Irwin Jacobs, an engineer. In 1985, Mr. Gilhousen joined Mr. Jacobs as one of the founders of Qualcomm, which focused on CDMA technology.

For decades various parties had explored CDMA as a way to use a radio spectrum

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## OBITUARIES

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more efficiently, and it went into military applications. Qualcomm adapted CDMA for digital phones. That was part of a broader technological push that inspired The Wall Street Journal in 1990 to envision a time when people would carry phones “the size of cigarette packs” in their pockets.

As smartphones proliferated, CDMA technology eventually was in the pockets of about 3.7 billion cellphone users, Qualcomm says. Now the cellular telecom world is in transition to a standard known as Long-Term Evolution, or LTE. Qualcomm's stock market value is now around \$78 billion.

Mr. Gilhousen's contributions were crucial to Qualcomm's work on CDMA, said Mr. Jacobs, a former chairman of the company.

In August 1989, the Gilhousens' world caved in when their 20-year-old daughter and her 3-year-old son were murdered during a break-in at a home in the Clairemont neighborhood of San Diego. That incident caused Mr. Gilhousen to reorder his life and commit himself to Christianity and philanthropy, his wife said.

Dr. Smith of the Yellowstone institute said the murders “brought Klein to a point of absolute surrender.” Faith, he said, “put these two terrible deaths in perspective for him.”

The family set out to find a new home in a small city, far from urban areas. They wanted to be near an airport, ski slopes and a university with an electrical engineering department. The quest ended in Bozeman, Mont. After settling on a

1,600-acre ranch near Bozeman, they raised horses for barrel racing and Corriente cattle. Mr. Gilhousen worked remotely for Qualcomm, where he was a senior vice president of technology, and flew his own planes to California for occasional meetings. He sometimes wore cowboy hats.

The family has donated about \$3 million to the Yellowstone Theological Institute, founded in 2012 and headed by Dr. Smith, a Baptist minister who befriended Mr. Gilhousen in Bozeman. The institute, with centers in Montana, Idaho and Washington state, offers graduate degrees in divinity, the arts and other fields. Dr. Smith said one goal is to encourage more communication among people of different faiths and experiences.

The family also has donated to Montana State University's engineering department, mental-health care, the Montana Cowboy Hall of Fame, youth programs and research into dinosaur bones, among other things.

Mr. Gilhousen is survived by his wife, four children, a granddaughter, three brothers and a sister.

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