

Charles P. Ginsburg



Born

- ▶ Charles Ginsburg was born in San Francisco, California on July 27, 1920.



Schooling

- Ginsburg throughout his childhood excelled in school and had limitless opportunities. After Junior High he won admission to Lowell High School which was a special public school for academically gifted students, and graduated in 1937. After high school Charles enrolled at the University of California Berkeley, intending to become a physician but after 2 years of premedical study his intellectual curiosity led him in other directions. In 1939 he transferred to UC Davis to study genetics and animal husbandry. A year later though, he lacked the funds to continue his schooling and had to drop out of college.



UCDAVIS

First Job

- His first job out of college was as a sound technician first for a recording company, then for a broadcasting company. In 1942 after earning some money he resumed his schooling part time at San Jose College(now San Jose State University), pursuing a degree in mathematics and engineering. During this time the second world war was happening but Ginsburg was excused from military service due to his diabetes. So instead he became a radio engineer to do his duty to his country.



Second Job

- ▶ In 1948 after the end of the war, Charles was hired by the station KQW, which was a major Bay Area Broadcaster.





Marriage and Kids

- ▶ Later in 1948 Charles married Louise Hamer, who was an attorney from a prominent family in the area. They bought a house in suburban Los Gatos and ended up having five daughters. Unfortunately in 1961, their marriage ended in divorce.

Big Changes

- In 1949 the company KQW which Charles worked for was purchased by the Columbia Broadcasting System, which is known today as CBS. Charles was in charge of the technical aspects of the change and crossover between the stations. In 1952 though, Charles surprisingly left CBS to accept an extraordinary research-and-development job which had few qualifications for. Alxaander M. Poniatoff personally recruited Charles to lead company research efforts in developing a magnetic videotape recorder capable of rendering broadcast-quality images.

The CBS logo, featuring the letters "CBS" in a bold, serif font, followed by a stylized eye symbol.

The Videotape Beginning

- ▶ Ginsburg began work at Ampex with an operating budget of less than fifteen-thousand dollars and a team consisting of Charles Anderson, an engineer later credited with inventing quadraphonic FM sound; Fred Pfof, who had made breakthroughs in designing audio recording equipment; Alex Maxey, an expert in metal alloys; and Shelby Henderson, a model maker. A few months after beginning the project, Ginsburg met Ray Dolby, a nineteen-year-old student whose mastery of sound physics was so impressive that Ginsburg added him to the team. Dolby later invented a noise-reduction system for audiotape that bears his name.



Early Issues

- ▶ Ampex had demonstrated a VTR in 1951, but three problems kept the project stalled in the laboratory: the velocity at which the tape moved through the recording heads was so great that a four-minute recording required more than a mile of tape; the image produced by the prototype lacked sufficient clarity to interest television broadcasters, who constituted the principal commercial market foreseen for the VTR; and sound quality was inconsistent, frequently falling out of synch with the image. Competing with such corporate research powerhouses as the Radio Corporation of America (RCA) and General Electric, Ginsburg's group was the first to bring a viable product to market.



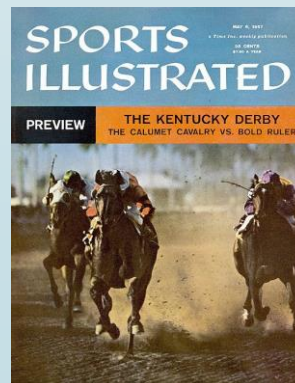
First Success

- ▶ The Ampex VRX-1000 VTR (U.S. patent 2,956,114) was unveiled at the 1956 convention of the National Association of Radio and Television Broadcasters in Chicago. Using two-inch-wide tape moving at a rate of fifteen inches (thirty-eight centimeters) per second through rotating recording heads, the VRX-1000 was capable of documenting an hour of video image on a single twelve-inch reel; an innovative head-to-head adjustable tracking system produced a broadcast-quality black-and-white image; and a signal-processing audio system based on FM radio technology produced broadcast-quality synchronous sound. CBS was the first customer, paying about fifty thousand dollars per unit. At first the television network used the VTR almost exclusively for "time shifting," the rebroadcasting of live programs, such as daily news reports, to western time zones after their initial airing in the East.



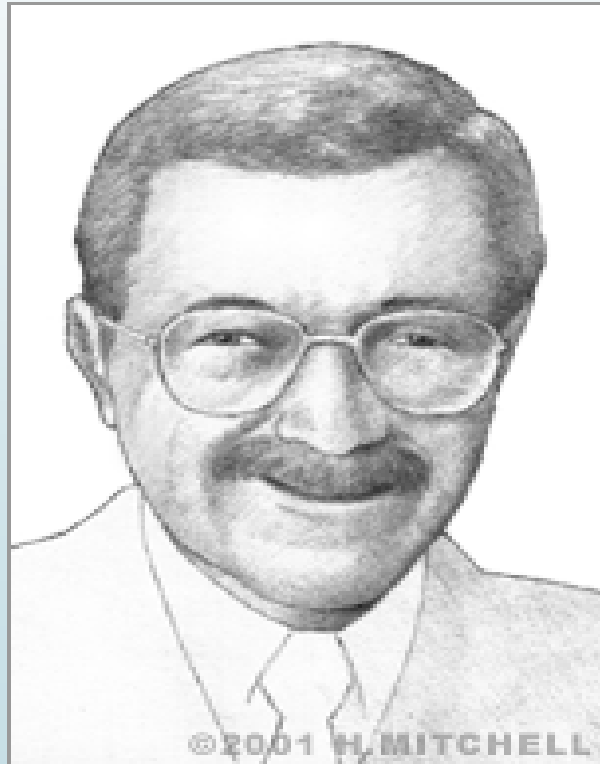
The First Instant Replay

- According to Sig Mickelson, then director of CBS News and Sports, the first "instant replay" took place as part of the network's coverage of the 1957 Kentucky Derby. Encouraged by CBS executives to experiment with the VTR, he took it from New York to Louisville and, immediately following the race, replayed it on the air, astonishing viewers. Kinescopes, sixteen-millimeter films of television programs made by training cameras on monitors during live performances, became obsolete as videotape emerged as the technology of choice for recording talk shows, daytime dramas, and other forms of entertainment programming. RCA, which prided itself on rarely buying rights to technology developed by other companies, swallowed its pride and paid licensing fees to Ampex to make use of Ginsburg's breakthroughs in developing color videotape. The National Aeronautics and Space Administration began using videotape on its missions in 1958.



Death

- ▶ Charles Ginsburg on April 9, 1992 in Eugene, Oregon at the age of 72.





Conclusion

- ▶ Charles Ginsburg had a huge impact on history for the better. He is credited with being the head man in the creation of the first instant replay VTR. This was an important moment in our history because it gave the opportunity for everyone around the world who owned a television to see video of something that just happened. This invention helped inform people more quickly. Without the VTR we would still be only seeing images of events on television and possibly seeing video of them over a week after they occurred. This was a great moment in our history. About 15 years after the invention of the VTR, the VTR technology was upgraded into the VCR. Most people nowadays have either seen or used one of these. These were used until as the main resource for video until digital video was released. This was