Feb. 5th

GTS Time Signal

Feb. 5, 1924; 9:30pm

The Greenwich Time Signal (GTS), popularly known as "the pips" in the UK, is a series of six short tones transmitted at one-second intervals by BBC radio stations. Their broadcasting began on this day, originally controlled by two clocks located at the Royal Greenwich Observatory; two were used in case of a breakdown.

They were the idea of Frank Hope-Jones, a well-known amateur radio enthusiast; the Astronomer Royal, Sir Frank Watson Dyson; and the head of the BBC, John Reith. The pips replaced a time signal played before the news at 7pm and 9pm since the BBC started in 1922. The signal initially took the form of the announcer playing "Westminster Chimes" on a piano, but was replaced by a set of bells which required less innate musical talent.

On Feb. 5 1990 (the pips' 66th anniversary), the BBC began employing its own atomic clock located in the basement of Broadcasting House, synchronized with the National Physical Lab's [Oct 1] clock and the GPS time signal [Feb 22].

When a leap second needs to be included, it's heard as a seventh pip, which often leads to confusion and complaints from distraught listeners. A more modern solution, utilized by Google servers, is to implement a leap "smear", which extends the lengths of a few seconds.

Patrick Henry Winston

Born: Feb. 5, 1943;

Peoria, Illinois

Winston's long career in AI, includes an influential early textbook on the topic (1977),

and 25 years hard-labor as director of the MIT AI Lab [Sept 00] (now part of MIT's CSAIL Lab) from 1972 to 1997. His current research includes the promotion of a new field, Computational Politics

His Ph.D. supervisor was Marvin Minsky [Aug 9] who Winston recalled seeing three times: "Once to give him a proposal, once to see if I was doing anything useful, and once to hand him my thesis."

Winston succeeded Minsky as the director of the AI Lab, who left to help found the Media Lab [Dec 1].

An online version of Winston's AI course is among the top-ten most visited subjects offered by MIT's OpenCourseWare [April 26].

Nolan Kay Bushnell

Born: Feb. 5, 1943; Clearfield. Utah

Bushnell is one of the fathers of the video game industry; the inventor of Pong [Nov 29], and founder of Atari [June 27].

Bushnell fell in love with Spacewar! [May 17] at the University of Utah, and he and Ted Dabney [May 2] formed Syzygy in 1969 with the intention of producing a Spacewar! clone. The result, "Computer Space" ([Oct 15] 1971), had sales exceeding \$3 million.

Bushnell and Dabney decided to incorporate Syzygy in 1972, but discovered, amazingly, that the name was already taken; they quickly switched to Atari.

Bushnell was responsible for hiring Al Alcorn [Jan 1], and as a training exercise had him work up a simple game called Pong. The resulting arcade machine was a great success, but the home console version sold spectacularly. It sparked the beginning of the video game industry with Atari becoming the leader in both arcade and

home video gaming until the crash of 1983 [July 1].

In 1976, Bushnell turned down an offer to invest in Apple: a mere \$50,000 for a third of the company. Steve Jobs [Feb 24] and Steve Wozniak [Aug 11] had worked at Atari on the game "Breakout" [May 13].

To expand Atari's business, Bushnell needed investment, and persuaded Warner Communications to buy the company in Aug. 1977. Warner and Bushnell didn't work well together, and he was forced out in Nov 1978.



Nolan Bushnell (2013). Photo by Tech Cocktail. CC BY-SA 2.0.

His most recent company is BrainRush, which applies video game technology to educational software. He's also on the advisory board of Anti-AgingGames.com, but apart from Atari, he's probably best known for founding the "Chuck E. Cheese" restaurant chain.

Bushnell's Law: "Games which are easy to learn and difficult to master are the most rewarding."

A quote: "Everyone who has ever taken a shower has had an idea. It's the person who gets out of the shower, dries off, and does something about it that makes a difference."

In fact, Bushnell seems to prefer hot tubs to showers: Al Alcorn remembers Bushnell holding Atari meetings in a hot tub setup in his office.

William Richard (Rich) Stevens

Born: Feb. 5, 1951;

Luanshya, Northern Rhodesia Died: Sept. 1, 1999

Stevens was the author of a seminal series of books on UNIX [Oct 15] and TCP/IP [Sept 9] written during the 1990's. His three volume work, "TCP/IP Illustrated", was so authoritative that it was used as a reference by members of the Internet Engineering Task Force (IETF [Jan 16]).

He once commented, "I really believe that my background is fundamental to the success of 'UNIX Network Programming' and my other books. That is, I was not one of the developers at Berkeley [March 9] or AT&T, so the writing of UNP was not a 'memory dump.' Everything that is in the book I had to dig out of somewhere and understand myself."

Stevens background was in aerospace, not computer science, and he was a part-time flight instructor during the 1970's. He also had long careers in astronomy and health-care software.

In "Wayne's World 2" (1993), Garth's girlfriend is seen carrying a copy of "UNIX Network Programming." Stevens discovered this himself when he took his 13-year-old son to see the movie. His son grabbed his arm and said, "Dad, that's your book!" However, Garth only identifies the book as: "That's a UNIX book. Cool."

Susan Kare

Born: Feb. 5, 1954;

lthaca, NY

Kare was the primary designer of the user interface graphics, bitmap fonts, icons, and marketing materials for the original Apple Mac [Jan 24]; her business card read "HI Macintosh Artist". She had joined Apple in 1982 after

receiving a call from high-school friend Andy Hertzfeld [April 6].

She created the Chicago, Geneva, New York, Cairo, and Monaco fonts, the dog that became Clarus the Dogcow [Oct 15], the Happy Mac (the smiling computer icon that welcomed users at startup) [Aug 23], and the Command key symbol on the keyboard (based on a Swedish campground sign meaning "interesting feature").



Mac typefaces designed c.1983–84 by Susan Kare. Prepared by Chmod007. CC BY-SA 3.0.

In 2015 the Museum of Modern Art in NYC acquired her sketch notebooks for the Mac icons.

She once remarked that "bitmap graphics are like mosaics and needlepoint and other pseudodigital art forms, all of which I had practiced before going to Apple."

After leaving Apple, her projects at Microsoft included the card deck for Windows 3.0 Solitaire [May 18], and various design elements for the OS [May 22]. Many of her icons, such as those for Notepad and several Control Panels, remained essentially unchanged until Windows XP [Oct 25]. Of her "crossing of enemy lines", she has merely said: "It was just fun to work in color."

Kale has sometimes been called the "Betsy Ross of the PC". Ross is best known for the story that she convinced George Washington to change the shape of the stars on the first American flag. She suggested that it was easier and speedier to cut out five-pointed stars than sixpointed ones. Recent historical research as tended to reduce her role, unfortunately.

MapQuest Launched Feb. 5, 1996

MapQuest was the first giant of Internet mapping. It began in 1967 as the cartographic services division of R.R. Donnelley & Sons, which produced road maps for gas stations. The division became more computer-oriented under the leadership of Barry Glick, and was spun off in the early-1990's as an independent company, GeoSystems Global Corp. On this day, it launched MapQuest.com, and the future looked bright.

MapQuest was acquired in 2000 by America Online [Oct 2], but its ubiquity in the map domain was short-lived. Google Maps debuted on [Feb 8] 2005, followed by similar ventures by other large tech companies – Apple [Sept 19], Nokia, and Microsoft.

As of May 2015, when it was purchased by Verizon Communications [July 28], MapQuest still had the secondhighest share of the US online mapping market, behind Google Maps [Feb 8], but this only amounted to a 25% share.

Victoria's Secret Webcast

Feb. 5, 1999

For the first time, the lingerie company, "Victoria's Secret," broadcast their annual fashion show as a webcast. It wasn't the first webcast [July 17], but it was the first major one, attracting around 1.5 million views from 90 countries. The event was organized by Ken Weil (management) and Tim Plzak (IT), and lasted 18 exciting minutes.

Despite the name, the webcast was very far from secret – large

ads had been run in *The Wall Street Journal, The New York Times*, and other upstanding publications. However, it was the commercial shown during the 1999 Super bowl that caused the most frenzy. Within minutes, a million people logged onto the "Victoria's Secret" website – causing it to crash. An example of performance anxiety perhaps?

Some reviewers were unhappy with the show since the network congestion meant that the images were rather jerky, which wasn't what the viewers were after, apparently. It was inevitable really since Broadcast.com's servers could only handle between 250,000 and 500,000 simultaneous users. The show returned to network TV in 2001.

Game NTensity Feb. 5, 2004

The "Law & Order: Special Victims Unit" episode called "Game" was televised for the first time on this day. It was written by Patrick Harbinson and directed by David Platt.

Two teenagers run over a women in their car, rob her, then beat her to death, imitating a scene in their favorite video game called "Ntensity." When caught, the two miscreants use video game addiction as their defense.

There's no such game in the real world, but it was a pretty obvious stand-in for "Grand Theft Auto III" [Oct 21]. However, the episode missed a trick since it debuted before the "Hot Coffee" [June 9] debacle of 2005.

Probably the inspiration for the storyline came from a sickening real incident in June 2003 when two teens decided to start shooting at passing vehicles after playing GTA III. One person was killed, and another seriously injured. A group of families filed a \$246 million lawsuit against Sony, Take-Two Interactive, Rockstar Games, and Wal-Mart.

Several similar lawsuits were filed during the early 2000's, often attached to GTA III or "GTA: Vice City", but failed due to the games being labeled "Mature" under the ESRB [Sept 16] ratings scheme.

For more GTA problems, see [June 9] and [Aug 4].