August 20th

World Telegram

Aug. 20, 1911

The New York Times sent a commercial telegram around the world to see just how long it would take. Its contents were somewhat less than inspiring: “This message sent around the world”; at least it didn't say "Test".

It left the dispatch room on the 17th floor of the Times building in NYC at 7 pm, and was relayed by 16 different operators, through San Francisco, Honolulu, Midway Island, Manila, Hong Kong, Saigon, Singapore, Madras, Bombay, Aden, Suez, Port Said, Alexandria, Malta, Gibraltar, Lisbon, the Azores, and then back to Times Square. The telegram was received by the same operator who had sent it off 16.5 minutes earlier.

This was neither the first round-the-world telegram message, nor the fastest [July 4], but it was an accurate reflection of communication speeds of the time.

Tom DeMarco

Born: Aug. 20, 1940;

Hazleton, Pennsylvania

DeMarco was one of the major figures involved in the development of structured analysis and design for software engineering in the 1970s. One milestone was the publication of his book, "Structured Analysis and System Specification" in Jan. 1978.

In the 1960s, DeMarco participated in Bell Lab's ESS-1 project to develop the first large scale electronic switching system. Versions of ESS went on to be installed in telephone offices all over the world.

A DeMarco quote: “Computer system analysis is like child-rearing; you can do grievous damage, but you cannot ensure success.”

Johns Frederick (Jeff) Rulifson

Born: Aug. 20, 1941;

Bellefontaine, Ohio

Rulifson led the team that implemented the oN-Line System (NLS) at the Augmentation Research Center at the Stanford Research Institute (SRI). NLS was designed by Douglas Engelbart [Jan 30], and became the first system to employ hypertext links, the mouse, raster-scan video monitors, information organized by relevance, and screen windowing.

Rulifson was SRI’s representative on the network working group which began construction of the ARPANET [Oct 29]; SRI was the recipient of that network's very first transmitted message (sent from UCLA).

At Xerox PARC [July 1], he worked on distributed office systems, and later started a European lab for Sun Microsystems [Feb 24].

John Carmack

Born: Aug. 20, 1970;

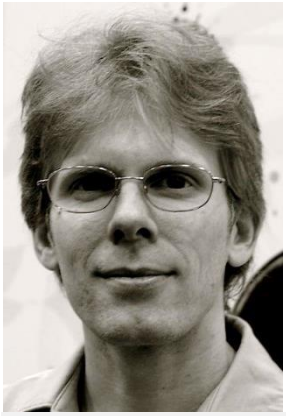
Roeland Park, Kansas

Carmack is a games programmer, virtual reality engineer, and rocketry enthusiast.

He was the lead programmer at id Software [Feb 1] and one of the company’s co-founders. He programmed the game engine behind Doom [Dec 10], and most of the other id Software titles of that time.

He pioneered or popularized several important game programming techniques, including adaptive tile refreshing in "Commander Keen" [Dec 14], raycasting in "Wolfenstein 3D" [May 5], binary space partitioning in Doom, surface caching in Quake [June 22], and *Carmack’s Reverse* in Doom 3.

A Carmack quote from that period: “Story in a game is like a story in a porn movie. It’s expected to be there, but it’s not that important.”



John Carmack (2006). Photo by Rob Fahey. CC BY-SA 2.0.

Carmack's love of pizza at id Software meant that he would order a medium pepperoni pizza almost every day. The deliveries were carried out by the same person for more than 15 years.

On August 7, 2013, Carmack joined Oculus VR [March 28] as their CTO. His involvement with both id Software and Oculus VR later led to some lawsuit problems [May 00].

Carmack has repeatedly voiced his opposition to software patents [Aug 17], which he equates to “mugging someone” [Dec 21].

Voyager Blast-Off

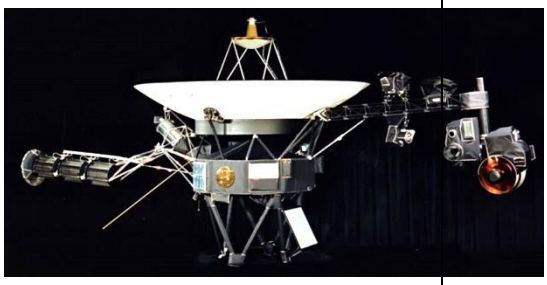
Aug. 20, 1977

The deep space probe Voyager 2 was launched on this day, and Voyager 1 sixteen days later on Sept. 5.

The two craft were nearly identical, down to their three custom-built computers: the flight data subsystem, the computer command subsystem (CCS), and the attitude and articulation control subsystem.

The CCS was an improved version of the one used in the

1970s Viking orbiters [July 20]. It was capable of executing about 81,000 instructions per second, and could transmit data back to Earth at a rate of 160 bits per second.



Voyager Space Probe. Photo by NASA.

Uncredibly, the software is still operational today, even though the last of the original Voyager engineers, Larry Zottarelli, retired in 2016.

On Feb. 17, 1998, Voyage 1 overtook Pioneer 10 [March 2]. to become the human-made device farthest from Earth. On Aug. 25, 2012, it became the first object to enter interstellar space.

Each Voyager carries a gold-plated audio-visual disc in the event that one of them is found by intelligent life. This may occur in about 40,000 years when Voyager 1 passes within 1.6 light-years of the star Gliese 445.

First VR Wedding

Aug. 20, 1994

Monika G. Liston, 25, and Hugh H. Jo, 33, were married in the world's first Virtual Reality (VR) wedding.

The couple (and a minister) climbed into "standing pods" at the "CyberMind Virtual Reality Center" in San Francisco, donned VR gear, and were married in the city of Atlantis (before it sank). Liston worked for CyberMind at the time.

The bride arrived at the altar (actually a bridge) in a chariot pulled by two horses. After exchanging vows, fireworks filled the sky.

The headsets contained two LCD screens, each with a resolution of 276x372, four speakers, and a microphone; each attendee employed a joystick for maneuverability.

The VR gear was produced by a British company, Virtuality, which focused on the game arcades market. Virtuality was formed in 1985 by Jonathan D. Waldern, but was sadly a little ahead of its time [March 28], and was forced to sell the rights to its machines to CyberMind in 1997 after a dramatic slump in demand.

The first "Virtual" wedding occurred some ten years before, on [Feb 14] 1983.

Google Doodle

Aug. 20, 1998

The first Google [Sept 27] Doodle honored the 1998 Burning Man Festival [March 30]. Larry Page [March 26] and Sergey Brin [Aug 21] put it together to notify users of their absence in case the Google servers crashed.

Subsequent doodles were created by an outside contractor, until Page and Brin asked intern Dennis Hwang to create a drawing for Bastille Day in 2000. From then on, doodles became the remit of a team of about ten illustrators called "Doodlers".

It wasn't until Nov. 14 2001 that the first person was commemorated, Claude Monet, drawn in the style of the painter's water lilies. As of 2019, over 1000 people had been featured.

On May 21, 2010, when Google replaced their logo with a playable Pac-man [April 3] doodle, users spent an extra 36 seconds on the search page. Assuming that there were around 500 million unique visitors to the page on that day, then the game caused a $120 million loss in man hours.

A doodles archive is online at: `https://www.google.com/doodles`