Sept. 2nd

The Carrington Event

Sept. 1 and 2, 1859

The Carrington Event was a massive solar flare observed by English astronomers Richard C. Carrington and Richard Hodgson. The mass ejection of charged particles induced one of the largest geomagnetic storms on record when it hit the Earth.

Telegraph systems across Europe and North America failed, in some cases giving telegraph operators electric shocks, and pylons were observed to throw sparks. Other operators could continue to send and receive messages despite having disconnected the power supply from their devices.

A solar storm of a similar magnitude occurred much more recently, on July 23, 2012. Fortunately, it missed the Earth because a direct impact might have caused an estimated $2 trillion of damage. For instance, global positioning systems could have failed, as well as other forms of satellite communications. Power surges might have disabled the electric grid for months or years.

Quebec had a small taste of this on March 13, 1989 when it was hit by a geomagnetic storm roughly half the size of the Carrington event; the city suffered a blackout for nine hours.

Pete Riley, a physicist who has studied extreme space weather events, says there's a 12% chance that a Carrington-level storm will hit the Earth in the next ten years.

For more solar flares, see [Aug 16].

Andrew Stephen Grove (Andras Grof)

Born: Sept. 2, 1936;

Budapest, Hungary
Died: March 21, 2016

Grove was present at Intel's founding, along with Robert Noyce [Dec 12] and Gordon Moore [Jan 3], as employee no. 3. He became Intel's president in 1979 and CEO in 1987, and during his tenure, Intel's market capitalization increased from $4 billion to $197 billion.

Grove played a critical role in Intel's decision to refocus from computer memories to microprocessors in the 1980s, and was behind the deal with IBM to use Intel microprocessors in their PCs [Aug 12].

In 1997, he was awarded "Man of the Year" by *Time* magazine for being "the person most responsible for the amazing growth in the power and the innovative potential of microchips."

Andy Grove (with a 1970's 'tache and tie). Photo by the Intel Free Press. CC BY 2.0.

Grove's office was just 8 by 9 ft., a similar size to those used by other employees, as he disliked "mahogany-paneled corner offices." He stated, "I've been living in cubicles since 1978 — and it hasn't hurt a whole lot."

A quote: "Success breeds complacency. Complacency breeds failure. Only the paranoid survive."

Eric Paul Allman

Born: Sept. 2, 1955;

El Cerrito, California

Allman created delivermail for the ARPANET and its successor, sendmail, one of the first Mail Transfer Agents (MTAs) for the Internet. Both tools were distributed as part of the Berkeley Software Distribution (BSD) [March 9], which helped to make them popular choices. Sendmail became the most widely used MTA on UNIX systems, despite its somewhat complex configuration syntax.

Allman also created syslog, the de facto standard logging mechanism used in open systems and peripherals.

Tom A. Hall

Born: Sept. 2, 1964;

Wisconsin

Hall co-founded id Software with John Carmack [Aug 20], John Romero [Oct 28], and Adrian Carmack on [Feb 1] 1991. He served as the company's creative director and designer, working on the "Commander Keen" series [Dec 14], "Wolfenstein 3D" [May 5], and Doom [Dec 10]. Following creative disputes over Doom, he left id in 1993. Legend has it that he disliked the amount of gore and violence in the game, and the corresponding lack of characterization and back story.

Hall was the creator of the Dopefish, a green, buck-toothed, dimwitted fish, which first appeared in Commander Keen IV. References to it have since popped up in many other video games.

Ultima 1 Released

Sept. 2, 1980

"Ultima I: The First Age of Darkness" was the first in the

Ultima series of role-playing video games (RPG). The aim was to find and destroy the "Gem of Immortality" before it could fall into the clutches of the evil wizard Mondain.

Richard Garriott developed Ultima during his freshman year at the University of Texas with the help of Ken Arnold. It was coded in Applesoft BASIC [Nov 00] on an Apple II [June 5], but Arnold wrote the tile-based graphics system (the first of its kind for a RPG) in assembly. The game was completed in less than a year.

Garriott would release Ultima II [Aug 24], while still being a student.

UTF-8 Placemat

Sept. 2, 1992

Unicode assigns a unique code to each character in a similar way to ASCII [June 17], but can support over a million characters, more than enough to account for every language, and even emojis.

UTF-8 is an encoding system for Unicode which maps every Unicode character to a unique binary string. Hence the meaning of UTF: "Unicode Transformation Format."

Ken Thompson [Feb 4] and Rob Pike's [Nov 10] UTF-8 design was outlined on this day on a placemat in a New Jersey diner, and over the next few days they implemented it in the Plan 9 OS [July 16]. The design was officially presented at the USENIX conference [May 15] in San Diego in Jan. 1993, and The Internet Engineering Task Force [Jan 16] adopted it in RFC 2277 (Jan. 1998) [April 7].

The first 256 characters in Unicode – which includes the ASCII characters – are represented as one byte in UTF-8. Characters that appear later in Unicode are encoded as two-byte, three-byte, and eventually four-byte binary units.

UTF-8 is the most common character encoding method now used on the Internet, and is the default character set for HTML5 [Oct 28]. However, it isn't the only Unicode encoding method – UTF-16 is another, which represents a character as a string of either two or four bytes.

QMS ColorScript Laser 1000

Sept. 2, 1993

The release of the QMS ColorScript Laser 1000 on this day made it the first color laser printer aimed at the desktop market. It offered 65 built-in Postscript fonts, and had a resolution of 300 dots per inch.

Although large and heavy by modern standards, it compared very favorably to its room-sized contemporaries. Also, it was priced at $12,499, 2 to 3 times less than those devices. However, prices soon dropped, with the release of the HP Color LaserJet in Sept. 1994 costing just $7000.

Initially these printers added colored toner to a sheet of paper in several passes, which meant they were slow, perhaps taking 30 seconds to print a page. The first single pass laser printer was the HP 4600, introduced in May 2002.

Search the Web

Sept. 2, 1993

W3 Catalog, launched on this day, was an early Web search tool based around a set of Perl scripts [Dec 18] written by Oscar Nierstrasz which extended Tony Sander's Plexus Web server, also implemented in Perl.

W3 Catalog didn't crawl over the Web like the "World Wide Web Worm" [Sept 00]. Instead it periodically downloaded well-known lists of Web resources, such as CERN's WWW Virtual Library [Aug 6]. Its front-end allowed the user to query this information locally.

Apple Buys Power

Sept. 2, 1997

Power Computing (founded by Stephen Kahng) was the first company selected by Apple to create a Mac clone [Dec 16]. The first one, the Power 80, shipped in May 1995, and not only outperformed its Apple counterpart, but was much cheaper.

Power Computing followed a direct, build-to-order sales model, similar to Dell [May 3], and grew rapidly It was the first company to sell $1 million worth of products on the Internet, and by 1997 had revenues of $400 million a year.

However, things were about to change. On this day, at the Apple Worldwide Developers Conference, Steve Jobs [Feb 24] announced that Apple would be buying back Power Computing's license to distribute the Mac OS, effectively putting an end to its production of clones. Jobs had previously made no secret of his dislike of the clone idea, and was now in a position to act; two weeks later he became Apple's Interim CEO [Sept 16].

After Power Computing stopped selling Mac compatibles, it briefly moved into the x86 clone market, but eventually went out of business.

Chrome Released

Sept. 2, 2008

Google's new Chrome Web browser was promoted with a comic explaining its features written and drawn by famed cartoonist Scott McCloud.

Google CEO Eric Schmidt [April 27] had previously opposed the development of a browser because he didn't want to get involved in "bruising browser wars." Co-founders Sergey Brin [Aug 21] and Larry Page [March 26] persuaded him to change his mind, and it proved a wise decision. Currently, Chrome holds a dominant share of the browser market (60-70%), with

its closest rival Safari [June 23] at just 20%.

One of Chrome's Easter Eggs is a dinosaur game, which appears when you try to visit a website while disconnected from the Internet. You make a dinosaur jump over cacti and dodge obstacles, the goal being to avoid hitting anything.

A Chrome Toilet. Photo by Dtobias. CC BY-SA 3.0.

Chrome was initially assembled from 25 different libraries developed by Google and third parties, such as Apple's WebKit rendering engine [June 23]. In 2013 Google forked WebKit (which is available under a BSD license) to create their own layout engine called Blink. They claimed this would mean 7,000 fewer files in the engine, equivalent to some 4.5 million fewer lines of code. Blink's naming was influenced by the much-disliked blink HTML tag introduced in Netscape Navigator [Sept 8].

Blink was subsequently adopted by Microsoft Edge [Aug 16], Opera [July 14], and several other browsers, and Chrome became the main component of Google's Chrome OS for running Web apps.

Google has applied the "chrome" brand name to several other products, including Chromecast [July 24], Chromebook [May 11], Chromebit, Chromebox, and Chromebase.