March 5th

Trevor Pearcey

Born: March 5, 1919;

Woolwich, London, UK
Emigrated to Australia in 1945.
Died: Jan. 27, 1998

Pearcey had seen Howard Aiken's ASCC [Jan 17] in action at Harvard in 1945, and decided a fully electronic version would be superior. In Australia, Pearcey and Maston Beard, an electrical engineering graduate of the University of Sydney, completed their first design by the end of 1947 – Beard working on the hardware and Pearcey the theory.

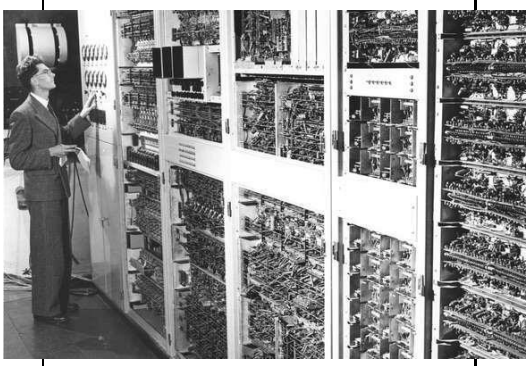
Their CSIR (Commonwealth Scientific & Industrial Research Organization) Mark 1 ran its first test programs in Nov. 1949 making it the fourth (or fifth) stored program computer. The others are the Manchester Baby ([June 21], 1948), the BINAC ([April 4], 1949), the EDSAC ([May 6], 1949), and the EDVAC (August 1949, or 1951) [April 12].

The Mark I initially relied on around 2,000 vacuum tubes, but these were replaced later by semiconductor diodes. The memory was a bank of 32 mercury-filled acoustic delay-lines, with an auxiliary magnetic drum storage.

Its innovative features included video and audio feedback to let the operator test and monitor the machine while it was running. This latter capability also meant it was able to play music [Aug 7], although the BINAC was first in this category [April 4].

The Mark I sadly only had a mean time between failures of about an hour, partly because the power system didn't have much reserve capacity. One story is that switching on a kettle in the nearby tearoom could trip the power, and shut everything down. Another thing the engineers never conquered was the Australian climate. At high temperatures, the machine had to be switched off.

At the end of 1948, Pearcey visited the UK to examine Wilkes's EDSAC in Cambridge, Williams and Kilburn's Baby in Manchester, and Turing's ACE project [Feb 19] at the National Physical Lab.



Trevor Pearcey with the CSIR Mark 1 (1952). (c) The Pearcey Foundation.

Afterwards, he decided to leave his design unaltered, and later noted that the Mark 1 "was completely 'home-grown' some 10,000 miles distant from the mainstream development in the UK and USA."

The machine was transferred to the Department of Physics at the University of Melbourne in 1955 where it was renamed the CSIRAC, and remained in service until 1964. It's now on display at the Melbourne Museum, making it the only surviving first generation stored program computer (although there are replicas of some of the others).

Patrick James Hanratty

Born: March 5, 1931;

San Diego ??, California

Hanratty is known as the "Father of CAD/CAM", a title he acquired due to his work at General Electric in 1957-1958, creating PRONTO (Program for Numerical Tooling Operations) and MTD (Machine Tool Director). They're considered the first commercial numerical control systems, predating the better known APT by a year [Feb 25].

At around this time, Hanratty developed a set of standardized machine-readable characters for bank checks. His E-13B font was adopted by the American Banking Association for use in its magnetic ink character recognition (MICR [Jan 28]) system.

He moved to General Motors in 1961 where he helped develop DAC (Design Augmented by Computer), the first CAD/CAM system to utilize interactive graphics. In 1962 (or 1963), Hanratty used DAC to design the first auto part using only a computer: the trunk lid for the 1964 Pontiac.

Hanratty left GM to form his own company, and in 1971 wrote ADAM (Automated Drafting and Machining). Perhaps 90% of all current drafting systems can trace their roots back to ADAM.

According to one source, Hanratty originally trained to be a singer, but his vocal chords and lungs were scarred in a B-29 crash while he was serving in the military; as a result, he turned to programming in 1954.

In 1986, Hanratty donated a copy of Shakespeare's First Folio (1623) to UC Irvine [Feb 20]. He also enjoys prospecting for gold.

David Hillel Gelernter

Born: March 5, 1955

Gelernter's work on parallel computation includes the Linda system, a model for coordination and communication among parallel processes based around data (tuples) stored in shared associative memory (a tuple space). Gelernter developed Linda with Sudhir Ahuja and Nicholas Carriero in 1986, which influenced systems such as Bill Joy's [Nov 8] JavaSpaces and Jini.

The model is named after Linda Lovelace, an actress known for her performance in the 1972

pornographic film "Deep Throat" [April 8].

In 2016, *Time* called Gelernter an "arch-genius," and he's known for his dismal view of cultural literacy on America's college campuses, and the destructive influence of liberal academia on society.

His father, Herbert Gelernter [Dec 17], was an early advocate of AI.

Homebrew Computer Club

March 5 (or 3), 1975

The Homebrew Computer Club's first meeting was conducted in Gordon French's garage in Menlo Park. About thirty hobbyists joined the founders, Fred Moore and French, including Bob Albrect [Feb 18], Steve Dompier, Lee Felsenstein [April 27], Bob Marsh, Tom Pittman, Marty Spergel, Alan Baum, and Steven Wozniak [Aug 11]. Albrect demoed an Altair [Dec 19], and Dompier gave an account of his visit to the MITS factory in Albuquerque.

The club's theme was "Give to help others," which was reflected in its organization. Each meeting began with a "mapping period," when people would speak about topics of interest. A "random access period" would follow which encouraged people to wander around and trade information. The club also published a newsletter [March 15].

The second meeting (on March 19) was held in a class room in John McCarthy's [Sept 4] AI lab, and the third [April 16] was convened at the Peninsula school, with over 100 people attending. Subsequent meetings moved to a large auditorium at the Stanford Linear Accelerator Center (SLAC).

After the end of a gathering, people would often reconvene for an informal "swap meet" in the parking lot of the Safeway store down the road from SLAC (since Stanford rules prohibited such activity on campus property). Another informal venue was "The Oasis", a bar and grill at 241 El Camino Real, that became known as "Homebrew's other staging area".

Notable user groups, in chronological order of their foundation, include SHARE [Aug 22], DECUS [March 00], USENIX [May 15], ACS [May 5], ACC [Dec 13], the Homebrew Computer Club, ACGNJ [June 13], A.P.P.L.E. [Feb 21], and the Chaos Computer Club [Sept 12].

Sinclair ZX81

March 5, 1981

The ZX81 was launched by Sinclair [July 30] Research, a year after the Sinclair ZX80 [Jan 29], and went on to sell over 1.5 million units, turning the company into a leading UK computer manufacturer.

The ZX81 used a Z80 processor [March 9], 1 KB of RAM, 8 KB of ROM (to hold a BASIC interpreter), and delivered its monochrome output to a TV screen. It had a pressure-sensitive 40-key membrane keyboard (that was horrible to use), and used a cassette recorder for storage.

The Sinclair ZX81. Photo by Evan-Amos. CC BY-SA 3.0.

Its distinctive wedge-shaped plastic case measured 6.6" deep by 1.6" high, and weighed just 12 oz. Its designer, Rick Dickinson, was awarded a UK Design Council award for his work.

Sinclair managed to keep the ZX81's price low (£69.95 assembled) by reducing the number of chips on the motherboard from the 21 used by the ZX80 down to four (or five) in the ZX81.

The ZX81's tiny memory presented a major challenge to programmers, but ingenious coders were able to achieve a surprising amount. One notable example was "ZX Chess" by David Horne, which managed to fit most of the rules of chess into just 672 bytes.

The ZX81's hardware limitations also prompted the emergence of a flourishing market in third-party peripherals, especially better keyboards and RAM extensions.

The ZX81 was submitted by Sinclair to the BBC's Computer Literacy Project [Jan 11], but Acorn [Dec 5] won the contract after they demoed a prototype of what became the BBC Micro [Dec 1]. One of the Acorn founders, Chris Curry, had worked for Sinclair on an earlier project [Feb 00], and there was a fierce rivalry between the two.

In 1982, Timex started selling a 2 KB version of the ZX81 in the US, rebadged as the "Timex Sinclair 1000", the first computer to cost under $100.

Sinclair Research's next computer would be the ZX Spectrum [April 23] in 1982.

Computer Sting

March 5, 1986

In the first computer-related sting by a US local law enforcement agency, seven teenagers were arrested on hacking charges in Fremont, California. Three were 15 years old, two were 16, one was 17, and one 19.

The police set up a "honey-pot" BBS called "Phoenix Fortress", and the arresting officer, Sgt. Dan Pasquale, operating under the alias "Revenger", had communicated regularly with about 130 hackers from at least seven states

The charges, mostly misdemeanors, included trafficking in stolen long

distance service codes and credit card numbers, dealing in stolen property, and the possession of dangerous weapons.

CNET

March 5, 1994

The CNET (aka c|net) news and reviews website was founded on this day by Halsey Minor and Shelby Bonnie, as part of their CNET Networks company.

CNET Networks rapidly expanded through acquisitions and alliances to own CNET.com and ZDNet.com (a business technologies news site). It purchased TechRepublic, a site targeting IT professionals, and the comparison-shopping site mySimon.com. Other brands included Gamespot (for computer games), Download.com (for software), and News.com (technology news).

CNET Networks also acted as an incubator for new companies. Snap.com (a search portal) and BuyDirect.com (an ecommerce site) were developed in-house before being spun off.

All this activity was rewarded when CNET Networks became one of the first Internet companies to become profitable in 1998.

On June 30, 2008, the company was acquired by CBS and its assets assimilated into CBS Interactive