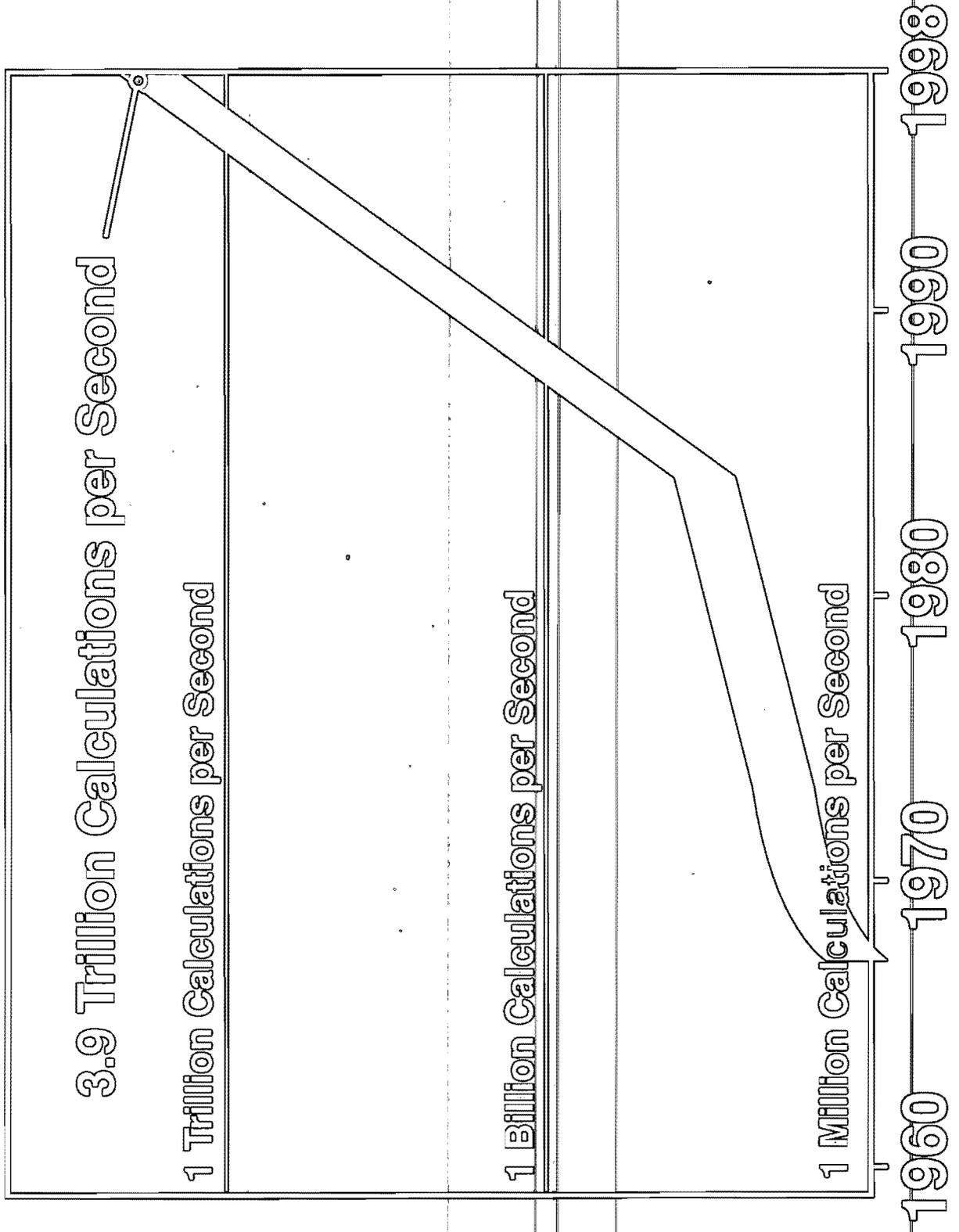
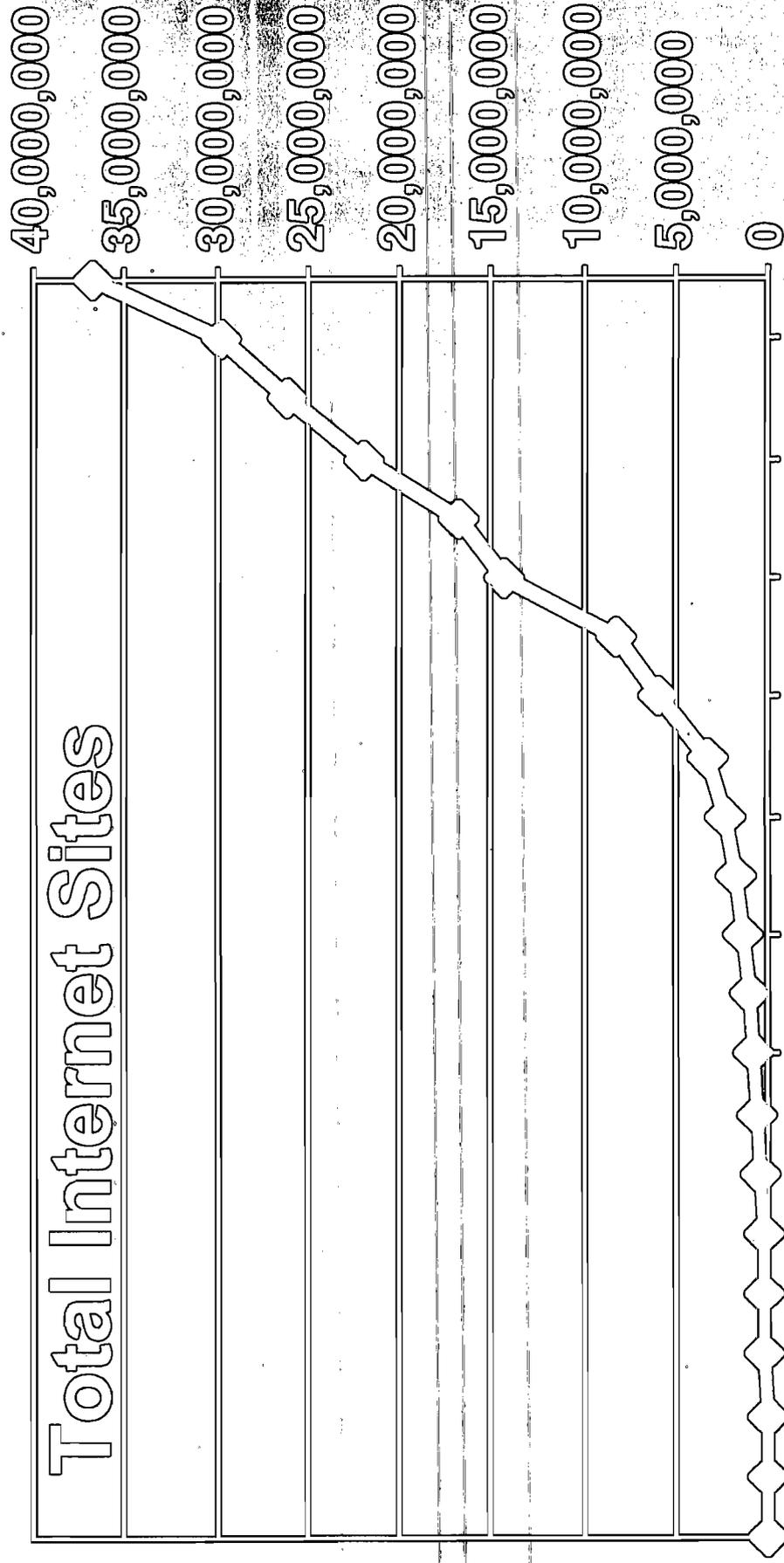


World's Fastest Computer



Information at the Speed of Light



1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998

FACT SHEET
THE DEPARTMENT OF ENERGY'S BLUE PACIFIC COMPUTER

Blue Pacific is capable of 3.9 trillion calculations per second (teraops). It was developed under a research contract between the Department of Energy and IBM at a cost of \$96 Million. It is located at the Department of Energy's Lawrence Livermore National Laboratory in Livermore, California.

Blue Pacific is the second supercomputer in the Department of Energy's Stockpile Stewardship Program. The Stockpile Stewardship Program uses science-based methods to assess and certify the safety, security and reliability of nuclear weapons without underground nuclear testing. The Energy Department will develop five generations of high-performance computers with a goal of 100 teraops by 2004. Blue Pacific builds upon the success of DOE's one teraops machine, Option Red, developed by Intel in 1996 and located at DOE's Sandia National Laboratories.

Blue Pacific is powered by more than 5800 PowerPC processors and uses 2.5 trillion bytes of memory. It is connected by over four miles of cable. It contains more than 25 trillion transistors.

It is 15,000 times faster and has roughly 80,000 times the memory of the average desktop PC. It contains more than 75 trillion bytes of disk storage capacity, or more than enough to hold all the information contained in the more than 17 million books of the Library of Congress. To put this into context, nearly 37 years ago, when John Glenn became the first American to orbit the earth, the state-of-the-art IBM computer was the 7030 stretch. Blue Pacific is 40 million times faster.

Blue Pacific will consist of two separate and distinct machines: an "open" side, computing and access for university research partners, at 900 billion calculations per second (gigaops), available for unclassified ASCI, and the closed side at 3.9 teraops for use on classified stockpile stewardship computing.

Closed Side	Open side
Peak speed 3.9 teraops	Peak speed 892 gigaops
Memory 2.6 terabytes	Memory 504 gigabytes
Disk 62.5 terabytes global 17.3 terabytes local	Disk 10 terabytes global 3 terabytes local
Number of compute nodes 1,464	Number of compute nodes 336
SMP configuration 4-Way	SMP configuration 4-Way
System footprint 8,000 ft ²	System footprint 1,500 ft ²
Total number of processors 5,856	Total number of processors 1,344
Processor -memory bandwidth 2.1 TB/s	Processor -memory bandwidth 470.4 GB/s

THE WHITE HOUSE

Office of the Vice President

For Immediate Release:
Wednesday, October 28, 1998

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VICE PRESIDENT GORE ANNOUNCES WORLD'S FASTEST COMPUTER

*Also Highlights Two New Laws to Create a Faster Internet and
Protect U.S. Copyrighted Works in the Digital Age*

Washington, DC -- Vice President Gore, joined by Energy Secretary Bill Richardson, unveiled today the world's fastest computer, which will break the "speed barrier for computing" by performing 3.9 trillion calculations per second -- 15,000 times faster than the average desktop personal computer.

"Over the last 50 years, innovation has accounted for half of our economic growth -- fueling our new economy and building a stronger, healthier, and more productive future for our children," Vice President Gore said. "That is why I am pleased to announce the world's fastest computer, which will lead to advances in, and greater understanding of, medicine, manufacturing, aviation safety, and global climate change."

The Energy Department's Lawrence Livermore National Laboratory in California and IBM developed the new machine, the "Blue Pacific," which has over 2.6 trillion bytes of memory -- 80,000 times more than the average desktop personal computer -- and could store all of the books in the Library of Congress. A person with a hand calculator would need 63,000 years to perform as many calculations as this computer can perform in a second.

"We've broken the 'speed barrier' and we're going to keep accelerating," Energy Secretary Bill Richardson said. "The Department of Energy needs these high speed computers to help ensure the safety, security, and reliability of our nuclear stockpile without nuclear testing."

In addition, the Vice President announced two new laws that will help harness the powerful forces of science and technology to grow the new economy. The laws will protect creative works in the digital age and create an Internet as much as 1,000 times faster than today's.

- **Protecting Copyrights in the Digital Era:** The Vice President announced that the President has signed a bill to bring copyrights into the digital age. In December 1996, the Administration negotiated two treaties that provide clear international standards for intellectual property protection in the digital environment and protect U.S. copyrighted works, musical performances, and sound recordings from international piracy.

-more-

The copyright-based industries that produce and promote creative and high-technology products contribute over \$60 billion a year to the balance of U.S. trade. This new law implements these treaties and extends intellectual protection into the digital era while preserving fair use and limiting infringement liability for providers of basic communication services. By creating clear rules for the digital highway, we will make commerce between businesses and with consumers safer.

- **Next Generation Internet:** The Vice President also announced that the President had signed a bill for creating the Next Generation Internet -- a federal research and development initiative that will connect over 100 universities at speeds up to 1,000 times faster than today's Internet, and establish the foundation for the networks and applications, including telemedicine and distance learning. By creating a new platform for advanced communications, we will build on today's Internet for the 21st century.

The Vice President also noted that technology contributes to roughly 30 percent of the growth in the nation's economy (measured by Gross Domestic Product), adding over \$1.1 trillion to national output in the last three years.

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