

Time's up. The year, the century, and the Millennium are over. The next major milestone on the Gregorian calendar is the year 2100 or perhaps 3000. In either case, I think the world and our nation as we know it will only vaguely resemble what it is today at the next big event. Consider that the US has only been sovereign for 200 years. In the mean time, my synopsis on 1999:

The House of Representatives impeached Bill Clinton and the Senate found him guilty of perjury and obstruction of justice. He would have been removed from office if it was the popular thing to do, but with the robust economy nobody wanted to risk his or her political career on a major change in government even if it did seem morally responsible.

The use of Morse code on sea going vessels as an international means of communicating distress was replaced with the satellite based Global Marine Distress Safety System. Morse code was, in effect, the network protocol of the world's first Internet: the international telegraph network. Samuel Morse, an American inventor, devised the code of dots and dashes that has found its way around the globe via wires and airwaves since its inception in 1832.

NATO and the US stumbled into a Balkan war with no clear-cut agenda or goals. We've committed troops to a conflict, which goes back 600 years in a strategically insignificant region and where the chance of us having a long-term impact is marginal at best. The bombing of Serbia has spread a chill in international relations between the US and both Russia and China. Russia hinted that its nuclear missiles could be re-targeted at NATO cities and said the use of NATO troops in Serbia could turn a newly cold war hot by drawing Russian troops into fighting on Serbia's side. China refused to accept the NATO bombing of its embassy in Belgrade as an accident. It demanded a full apology from NATO and the US and refused to cooperate in finding a diplomatic way to bring peace to Kosovo unless the bombing campaign was stopped. A coordinated alliance such as that seen in Desert Storm this was not. Never did I observe the logical face saving solution offered to have Russia broker a NATO backed peace agreement and then, with its credibility on the line, be largely responsible for enforcing it. When the bombing finally stopped (and we committed troops to the ground) Mr. Milosevic was left in power and NATO's messy war became a messy peace.

China stole the design plans to our most sophisticated ballistic nuclear weapons including the W-88. The current administration acted with shock and disbelief when in fact any foreign intelligence agency in the world, ours not excluded, will do what it can to learn another's' secrets. In this particular case it was Bill Richardson, Secretary of Energy, and Sandy Berger, Clinton's National Security Advisor who are responsible for the lapse in security at our most sensitive national laboratories. It's a good bet China will be the next global superpower. With a growing economy and population, an appetite for high technology, raw materials and energy, and a large standing army with nuclear capabilities -- a consistent, intelligent, and long-term foreign policy are critical.

Kim Jong Il of North Korea continues to destabilize the region and threaten US troops in South Korea. He has the capability to send a missile to Japan, Taiwan, or South Korea. If any of these targets were hit, our economy would grind to a halt in a day and we would be forced into a war. This is an area where statesmanship and an intelligent foreign policy should be concentrated.

Worldwide there are 260M people online, 110M are American. The next closest country is Japan at 18M. Online sales in 1999 will hit \$36B compared to \$13B last year. Retailing online is cannibalizing brick and mortar store sales. Music and video downloads will replace trips to the store and will drive some types of distributors out of business. The Internet is becoming legitimate as established brand name companies setup major retailing infrastructure and move their business-to-business operations online. The future will include an internet free of the Microsoft monopoly where it is easier to find what you want while your online data is more secure. It will become pervasive. If you misplace your keys, they'll be smart enough to tell your Palm Pilot where they're at or even tell your car or house to let you in. If you have a heart attack, your watch will have the telephone call the hospital while the medicine cabinet relays your current prescriptions. The ambulance will come directly to you using a Global Positioning System and with no chance of getting lost. The downside? Privacy as we knew it just ten years ago is gone forever.

The hydrogen-powered fuel cell is coming of age. Manufacturing costs are down to a \$1000/kilowatt. The target number of \$50-100/kilowatt is where they'll be as inexpensive as an internal combustion engine. Imagine a car that is silent and emits no pollution or a box as small and quiet as a PC that provides as much power as a generator. OPEC will be history.

The search for planets outside of our solar system continues successfully. I am confident that in my lifetime I will see the image of a newly discovered planet orbiting a distant star.

The US economy continued to grow without the drag of inflation. Due primarily to advances in information technology, improvements in productivity, cheap energy prices, and politicians that just didn't do anything to mess it up.

The world population hit 6B this year. It was 1B in 1800 and 3B in 1960. The forecast is for 9B in 2050 and 12B in 2100. China has 1.25B people and India's got 1B. The US has 260M, undeniable proof that quantity is not quality.

In the near and not so near future computer graphics will be indistinguishable from the real thing. Video cameras will become ubiquitous and their images will be accessible online. People will have communications with anyone anytime. We'll live and work in intelligent homes and offices where the devices within will communicate with each other to simplify our lives. We will map the human genome and potentially eliminate such ills as muscular dystrophy and Alzheimer's disease. Manipulating the genes of a fetus will become as typical as plastic surgery is today. Integrated circuits will be embedded into people with a common interface. Kind of scary but kind of cool. You can embrace it or be left behind. Either way it'll happen.

As for ourselves, we recently returned from a trip to the British Virgin Islands. We chartered a 38' "bareboat" sailboat, with no crew, just a couple of friends. Monica did most of the sailing with me doing what I enjoy most, navigating, handling the radio communications, and bringing us into and out of port. Andrew is doing well in second grade, excelling at math and science, and has his orange belt in karate. I'm still at S3, Inc. designing computer chips. Monica is developing software for Hewlett Packard. We're still in San Jose:

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There's an election in 11 months. It's obvious I haven't been happy with the current administration for a long time and I hold the comfortably numb American public responsible for its reluctance to change anything in the second term. If you want to know my specific grievances, you'll have to call me; it's a pretty long list. We are going into a new century in an increasingly complex, dangerous, and international world. We need forward thinking, global, professional leadership to represent us and prevail. Our foreign policies must be first and foremost to protect national security and our domestic prosperity. A complacent, status quo, naïve attitude is certain to lead to disaster. And, we have the most to lose.

The chains of habit are too light to be felt until they're too heavy to be broken. Warren Buffett, 1996

*Merry Christmas and Happy New Millennium*

*The Cottrell Family*

Where Your Tax Dollar Goes...

1998: Social Security ¢23  
Interest on the Debt ¢15  
Defense ¢15  
Medicare ¢12  
Medicaid ¢8  
Other ¢8  
Welfare ¢7  
Federal Employee Retirement ¢4  
Resources & Technology ¢3  
Education ¢3  
Veterans' Benefits ¢2