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COUNTDOWN TO THE YEAR 2000

A Prioritized Approach to the Millennium Bug

Mr. BENNETT. Mr. President, I rise because this is an anniversary date, not an anniversary of something that happened in the past but an anniversary of something that is going to happen in the future. This is an anniversary that is counting backwards. Depending on how you count it, this is either day No. 599 or day No. 600; 599 to the 31st of December, 1999, or 600 days prior to January 1, 2000—the day of the great New Year's Eve party that everybody is reserving their hotel time for in Times Square. But it is also a day that we need to look forward to with some concern because of what has come to be known as the millennium bug, the year 2000 problem, or, as the computer people abbreviate it, Y2K.

I used the phrase 'Y2K,' and my wife said, 'What are you talking about? What does it stand for?' Well, the 'Y' stands for 'year;' '2' and 'K,' for 'kilo' or 1,000 years—2,000—so it shortens it. Call it Y2K. She stopped and thought about it a minute, and she said, 'Y2K or year 2000, you only save one syllable. What's the point?' Nevertheless, that is what it has come to be known as.

As the chairman of the newly created committee dealing with this challenge here in the Senate, I want to take this anniversary date to bring the Senate and any who are listening over C-SPAN across the country as a whole up to date on where we are with the Y2K problem.

First, let me outline the dimensions of the problem. A lot of people say, 'Oh, yes; we understand it. It is simply that computers are geared to handle the date with two digits instead of four.' So 1998 would be in the computer as '98 instead of '1998. And that means when you get to the year 2000, the '00 to the computer means '1900 because the '19 is assumed in advance.

Actually, it is more serious than that. There are three areas of concern about Y2K.

The first one, of course, is the software concern that I have already mentioned. The software is programmed with two digits for the date instead of four. If you do not change the software program, the computer will run into

problems and start to do very strange things when it hits the year 2000.

Since I have been involved in this issue—and it has been almost a year since I began to focus on it—I have discovered there were two other possible problem areas. So in addition to software, you also have a hardware problem symbolized in the phrase 'embedded chips.' These little, tiny chips that drive the computers, the miracles of the modern technological age, very often have a date function built into them. And, again, in order to save space on the chip, the date function is built in with two digits.

Where are the embedded chips? They are embedded everywhere. Andy Grove, the CEO of Intel, the largest producer of chips in the United States, was here in Washington a week or so ago. He was asked, 'How serious is the Y2K problem?' He said, 'It is very serious. And the reason is'—focusing on the chip side—'you don't know where the embedded chips are embedded.' 'For example,' he said, 'the thermostat in your home may not work after New Year's Eve, 1999.' Now, it will not do you any good to call the manufacturer of the thermostat and ask him, because the manufacturer himself does not know. The chips were purchased, and put into the thermostat without concern as to whether or not they had a date function. And if the manufacturer got some chips that had date functions in them and put those chips into your thermostat, you are going to be very chilly on New Year's Day in the year 2000. And there is no way of knowing in advance whether that is going to happen.

That can be a nuisance for you, it can be a life-or-death situation for some people, and it can be an enormous manufacturing challenge where we are storing and refrigerating meat and other perishables that are dependent on those embedded chips. It can be a life-or-death situation for an automobile manufacturer whose entire plant is now automated with robotics, all of which have embedded chips.

So, as I said, Mr. President, it is not just the software

that needs to be changed, as the first of these three areas of concern; it is also the embedded chips that need to be found and dealt with.

As a final footnote to this, I was discussing this whole Y2K issue with an individual at the Church of Jesus Christ of Latter-day Saints, more commonly known as the Mormon Church, the largest church in the state which I represent, asking him how prepared the church was. Fortunately, it was good news. He said the church was quite prepared. But, he said, 'We have identified, among other things, two embedded chips in the tabernacle organ, which if we do not replace means that the Mormon Tabernacle Choir will not have any organ accompaniment on January 1, 2000.' That shows how ubiquitous the problem of the embedded chips can be and how it can show up in places no one would ever think.

I said there were three areas of concern. I talked about the software and the embedded chips. What is the third? This is the area of connections. Everything in the computer world is connected to everything else in one way or another. I was at the Defense Department talking with officials about their Y2K problem and made the comment about how difficult it will be in our defense establishment if, on January 1, the various screens that handle the computerized information in our defense establishment go blank.

Deputy Secretary Hamre said, 'No, Senator, if the screen goes blank, while that is a problem, it is not a catastrophe; because if the screen goes blank that tells you you have a problem in that particular piece of equipment. The thing we are worried about is if the screen does not go blank, the computer continues to operate, but another computer system to which it is connected starts feeding it inaccurate data.'

If the computer continues to function, making its calculations that 'zero zero' really does mean 1900 and begins to give you bad information, that could contaminate your entire database. That, he says, is a bigger concern than if the screen goes blank. Frankly, that had not occurred to me. I was able to add, unhappily, a third category of concern—software, hardware in embedded chips, and now connections.

What are we looking at in our special committee with respect to the year 2000 problem? I have divided it up into seven areas and prioritized these areas. We will look at them in the following order to try to see what we can do to avert disaster in the next 599 days—all the days that are remaining to us. Obviously, we would like to pass a resolution saying that we have an extra two or three years. We do not. No matter what the Congress does, no matter what the president does, no matter what anybody else does, we have 599 days and counting down, inexorably from right now.

These are the areas of concern. **FIRST, UTILITIES.** If the power grid goes down because of connections in the computers or because of embedded chips in certain power plants that shut those power plants down because of bad software somewhere, then it is all over. It doesn't matter if

every computer in the country is Y2K compliant if you can't plug it into something. So we are focusing first and foremost on utilities and not just power. The water treatment system in every municipality in this country is computer-driven and has the potential of being upset because of embedded chips and bad software. Utilities, therefore, are at the top of the list of things we are addressing in our committee. We are doing what we can to try to expose information about this problem and get people worried and working on it.

SECOND IS TELECOMMUNICATIONS. What happens if you pick up the phone on January 1, 2000, and you cannot get a dial tone? I don't think that is going to happen in the United States. But the evidence is fairly clear that it is going to happen in some countries. If you are running a multinational organization, be it the Defense Department or a corporation, and you pick up the phone and you cannot get a dial tone in various parts of the world, you are in serious trouble. So, behind utilities, we are looking next at telecommunications.

THIRD, TRANSPORTATION. Instantly people think of the FAA and the inability of the air traffic control system to control airplanes. That is a concern, but what about shipping on the high seas—global positioning systems that all have chips in them that control the navigation of the oil tankers and the other freighters that are moving commerce all over the world? Here in the United States the railroads are heavily dependent on computer systems to route the traffic that produce the shipment of the heavy materials that keep our nation going. Transportation is clearly number three, following utilities and telecommunications.

FOURTH is the area that got me interested in this problem in the first place, **THE FINANCIAL SERVICES.** What happens if the banks cannot clear checks? What happens if there can be no electronic transfers of funds? I am happy to report that I believe we are fairly well along the road toward getting this problem solved. We have had seven hearings in my Senate Banking Subcommittee on this issue, but we cannot relax here, either. The financial services clearly come in as the fourth major concern.

Then, **FIFTH, GENERAL GOVERNMENT SERVICES,** not only federal but state and local, as well. What happens if in our large cities the county government cannot distribute welfare checks, due to the computerization, or it cannot handle food stamp distribution? What happens if HCFA, the Health Care Financing Administration, cannot handle reimbursement of Medicare or Medicaid funds? I have talked to hospitals and other health care providers that are dependent on HCFA reimbursements for their cash flow projections and they use the HCFA cash flow to do such things as purchase ordinary supplies for running the hospital.

The whole health care system could grind to a halt if the government services in this area are not made Y2K compliant. The doctors who I have talked to tell me we

have long since quit dealing with HCFA with paper. All of our interconnections with HCFA are electronic, and if that system goes down, the ripple effect will be tremendous.

NEXT, GENERAL MANUFACTURING. Fortune magazine had an article on their web site pointing out how much trouble General Motors is in. I don't mean to single out General Motors, because I think every manufacturer has the same kind of problem. In today's world, where computers are available, we operate a just-in-time inventory system where you do not have huge stockpiles of spare parts out on the back lot anymore. With the computer, you have it worked out with your supplier that your spare parts arrive just in time for you to put them in your final manufacturing product. The just-in-time manufacturing system shuts down altogether and the manufacturing shuts down. General Motors has done a survey of every one of their manufacturing plants and they have found embedded chips in every one of their robotic systems. If they do not get this problem solved, they will not be able to produce an automobile after January 1, 2000.

FINALLY, THE SEVENTH, listed last because it will come last chronologically, but probably should be listed first in terms of its financial impact if we do not get the other six solved, **IS LITIGATION.** The lawsuits that will be filed will be enormous. Estimates before my subcommittee of the Banking Committee indicate the total litigation bill could run as high as \$1 trillion, one-seventh the size of the total economy that will change hands as people sue each other over the problems created by Y2K. We have to make sure we solve the other six so that number seven doesn't hit us and destroy us.

The purpose of the special committee created by the Senate, I believe, is to examine all seven of these areas, act as a coordinating point for people involved with each of the areas, and then give reports, both to the Senate and to the people in the country as a whole, as to where we are, because it is not all doom and gloom. We do have areas where we are making progress.

I spoke this morning with John Koskinen who heads this effort on behalf of President Clinton in the executive

branch. He reported to me that contrary to some of the information we have seen in the press, the Social Security Administration will be all right, and will indeed be able to distribute Social Security checks in the year 2000. Now, if the banking system is all right, those checks can be received, and that is a demonstration of the interconnectivity problem that we have. But that is a piece of good news. As we focus on the challenge of Y2K, we should not lose sight of the fact that there is good news and there is progress being made.

I close with this observation about the importance of this entire issue. One of the experts with whom I have been in contact since I assumed this new chairmanship said to me, 'The one thing we know for sure about this is that nobody has ever done it before. We have no historical precedent to guide us, to tell us how to handle this and what we can expect.' And, of course, he was accurate. Clearly, that is a true summation of where we are. Yet, when I made that comment to another friend of mine, he said something that I think summarizes exactly the challenge we are facing. He said, 'No, Bob, that is not true. We have a historic example. I said, 'What is it?' He said, 'the Tower of Babel.' He said, 'The people got together and decided they were going to build a tower to heaven, and God didn't like it, so he fixed it so they could not talk to each other and that ended it.' He said, 'That is the paradigm of what we are dealing with here, Y2K.' We are facing the possibility that after January 1 we cannot talk to each other because the world is all wired by computers, and if, indeed, that turns out to be the case, as was the case in Genesis, that will end it.

I am hoping that everyone recognizes this anniversary for what it is—a milepost on the road toward an inexorable challenge, and that we use the opportunity to take the remaining 599 days to see to it that when we get to New Year's Eve 1999, we can look back and say that we were facing something as serious as the Tower of Babel, but we have, as a Nation, and as a world, faced up to that, and now Y2K is going to be a bump in the road instead of a drive off the cliff.