

Thank God for the Marines Corps, thank God for General Krulak.

The PRESIDING OFFICER. Acting in my capacity as an individual Senator from Kansas and a former marine, let me thank the majority leader and indicate what all marines would indicate were they present—"oo-yah."

The distinguished Senator from Montana is recognized.

Mr. BURNS. Mr. President, I am pleased and honored to stand with Senator LOTT today, our majority leader, in honor of the coming change of command of the U.S. Marine Corps and the Commandant and the retirement of Gen. Charles C. Krulak.

We all share one thing, and I think the leader missed one thing the General stands for. It is written out there on the Iwo Jima Memorial. Uncommon valor was a common virtue. Every marine carries that and *semper fi*. As a former enlisted marine, there is no other comparable military fraternity. In fact, I credit the Marines Corps for saving my life. I remember as a young man I was sort of adrift. The Marine Corps has the habit of setting a person straight.

I share the kindred spirit that is fundamentally the heart and the soul of the Corps. It has been my pleasure to work with General Krulak in my duties as chairman of the Senate Military Construction Appropriations Committee since he assumed his duties as the 31st Commandant in 1995.

His military career extended back almost 40 years to his entry in the U.S. Naval Academy. He graduated in 1964 and went on to The Basic School in Quantico, VA. He continued to distinguish himself in command positions too numerous to count, including two tours in Vietnam. During the gulf war, General Krulak commanded the 2nd Force Service Support Group for the Atlantic Fleet Marine Forces. If you read through his commendation list, it seems he earned almost every award and decoration possible, including the Defense Distinguished Service Medal, a Silver Star, Bronze Star, two Gold Stars, and a Purple Heart, just to make a few.

I think it goes to show every American how appropriate it was for General Krulak to be nominated for the Commandant's office. He told me the other day that when he leaves the Marines Corps this will be the first time a Krulak has not been in a marine uniform for over 80 years. What a great tradition. He knows the marines. He was raised in the society. He stood up for them and their fundamental beliefs.

In his farewell to the Corps in the June edition of *Leatherneck Magazine*, General Krulak reminds us of two simple qualities that define all marines. First is the Touchstone of Valor. When marines are called to battle, they suit

up and go, and they fight. Winning is mandatory; losing is not an option. This has been true from the earliest days of the Revolutionary War through modern-day battles. The battle list is long and distinguished: Iwo Jima, Inchon, Danang, Kuwait, and now Kosovo. The Commandant reminds us that "the memory of the marines who fought in these battles lives in us and in the core values of our precious Corps."

The second quality is the Touchstone of Values. Marines have always held themselves to the highest standards. Words like "honor," "courage," and "commitment" are convictions that are embedded within the recruitment and training of all marines. *Semper Fidelis* is not just a Marine Corps motto; it is a heartfelt passion.

When you hear General Krulak's statement, you understand why the name U.S. Marine brings confidence to America's allies and general respect from all of our potential enemies. He was a leader by example and he will continue to be a leader by example. He stood as an anchor on the Joint Chiefs, paving the way for Congress to make some progress in military readiness. He is widely known for his openness, his honesty, and his cruel truth.

The general has the toughness of the Corps, but he has a sensitive side also, which is the quality of a leader.

I have a shirttail cousin who served in the Marine Corps and was wounded in Vietnam. Last summer, Cpl. Dan Critten and his wife visited this town and attended a dinner and we were honored to have General Krulak attend. Danny is confined to a wheelchair because of his injury sustained in Vietnam. He was at Danang. As it turned out, General Krulak was just a hill away that very day. Dan came home back to Missouri in a wheelchair, and he went right back to farming. He fixed up his tractor. He had all the hydraulic lifts and he could chase his cattle and do his farming. He never whimpered once. He, too earned the Bronze Star and has lived a life that is truly the model of an American and a marine that we all know and notice.

I remember that meeting when we went to that dinner, when the general met the corporal that evening. It was a special moment in the human experience. There was no rank, just a special feeling of two warriors who faced and survived the horrors of war. I will never forget that moment. It reminded me why this Nation, this United States, will lead the world and why the Corps is respected wherever it is assigned. It has dedicated men and women who have a sense of duty, the willingness to win but also a quality of heart.

Every change of command brings happiness and sadness. There is satis-

faction and appreciation for a job well done, and there is mourning for departing the fellowship of the Corps. The good news is there is no such thing as an ex-marine. I am convinced that General Krulak will be as effective in his future position as he was a marine.

On behalf of United States, I say thank you, General, for your incredible service and your dedication to your country. We owe you and all marines a debt that can never be repaid. You have lived honorably in extraordinary circumstances and have left the Corps stronger and more capable in your wake. We say, *Semper Fi*.

Now we welcome a new Commandant, another marine who has stood the test on the field of battle and among his peers. I have no doubt about the future of this Nation's U.S. Marine Corps. The tradition continues.

I yield the floor.

The PRESIDING OFFICER. The distinguished Senator from Washington is recognized.

TECHNICAL REALITIES OF THE Y2K ACT

Mr. GORTON. Mr. President, earlier this week the Senate passed a bill that tries to bring some reason to the legal chaos that could result from Y2K failures and Wednesday evening the Senate appointed conferees to reconcile the differences between the House and Senate bills. I rise today to commend the Senate for doing this, and to read from an excellent memorandum underscoring the need for a quick resolution and final passage of a conference report.

A memorandum prepared by the Year 2000 Technical Information Focus Group of the Institute for Electrical and Electronics Engineers, the "I triple E," provides the best analyses and explanations I have seen of the complexity of Y2K litigation; of why the argument we heard during floor debate that the bill is designed to protect "bad actors" and that it fails to provide sufficient incentives for remediation is generally hollow; and of why it is so important that we do what we can to minimize the economically paralyzing effects of a predictable and utterly overwhelming legal snarl.

The memorandum, sent to various members of Congress, is particularly compelling because its authors do not represent businesses that may be sued, but are members of an international non-profit association of engineers and computer scientists.

The memorandum is so good that rather than simply have it printed in the RECORD, I will read it:

TAB YEAR 2000 TECHNICAL,
INFORMATION FOCUS GROUP,
Piscataway, NJ, June 9, 1999.

To: Members, Senate Commerce, Science And Transportation Committee; Members, Special Senate Committee On The Year 2000 Technology Problem; Members, House of Representatives Committee on Science, Subcommittee on Technology; Members, Committee on Government Reform, Subcommittee on Government Management Information, and Technology; Sponsors, House Bill "Year 2000 Readiness and Responsibility Act of 1999," H.R. 775.

Re: Year 2000 Liability Legislation.

From: The Institute of Electrical and Electronics Engineers (IEEE), Technical Activities Board, Year 2000 Technical Information Focus Group.

DEAR HONORABLE SENATORS, CONGRESSMEN AND CONGRESSWOMEN: As leaders of the Y2K effort of the Institute of Electrical and Electronics Engineers (IEEE), the oldest and largest international non-profit association of engineers and computer scientists in the world, we would like to offer some thoughts on the pending legislation involving Y2K liability obtained from our years of work and collective wisdom spent studying Y2K. The IEEE has drafted an Institute position on Y2K Legal Liability regarding United States federal law, to which our committee greatly contributed. We offer these additional thoughts in hopes that they may further assist your understanding as you attempt to reconcile two very valid but conflicting underlying public policy goals in structuring and passing the Year 2000 Liability Legislation currently under consideration.

Minimize Damage to the Economy and Quality of Life: minimize the overall damage to the nation's economy and quality of life by reducing the need of organizations to redirect their limited resources away from the task of maintaining their operations in the face of Y2K in order to defend themselves from lawsuits arising from alleged Y2K failures.

Maximize Incentive for Y2K Failure Prevention: maximize the incentive of every organization to prevent Y2K failures as well as preserve the legal rights and remedies available for those seeking legitimate redress for wrongs they may suffer resulting from Y2K failures.

In addressing public policy issues we have no more expertise than the literate public. However, we do possess expertise in the technical issues underlying the situation that should be considered as you weigh the conflicting public policy goals in formulating appropriate Year 2000 Liability Legislation. In particular, for your consideration we offer the following points pertaining to the technical realities of Y2K.

1. **Prevention of all Y2K Failures Was Never Possible:** For many large and important organizations, technical prevention of all Y2K failures has never been possible in any practical way for these reasons:

1.1 "Y2K Compliant" Does Not Equal "No Y2K Failures." If an organization makes all of its systems "Y2K compliant", it does not mean that that same organization will not experience Y2K failures causing harm to itself and other organizations. In fact, efforts to become "Y2K compliant" in one place could be the direct cause of such failures in others. If interconnected systems are made compliant in different ways, they will be incompatible with each other. Many systems in government and industry are mistakenly being treated as if they were independent and fixed in the most expedient way for each

of them. When this "Humpty Dumpty" is put back together again, it will not work as expected without complete testing, which is unlikely (see Complexity Kills below).

1.2 **All Problems Are Not Visible or Controllable.** In the best case organizations can only address those things they can see and those things they have control over. Given this reality, many Y2K failures are inevitable because some technical problems will not be discernible prior to a failure, and others, while discernible, may not be within an organizations' jurisdictional control to correct. This is especially true in large complex organizations with large amounts of richly interconnected software involved in long and complex information chains and in systems containing a high degree of embedded devices or systems purchased in whole from external parties. (The temporary lifting of certain copyright and reverse engineering restrictions for specific Y2K protection efforts should also be considered as long as copyright holders are not unduly harmed.)

1.3 **Incoming Data May Be Bad or Missing.** To maintain their operations many organizations require data imported from other organizations over which they have no control. Such data may have unknowingly been corrupted, made incompatible by misguided compliance efforts or simply missing due to the upstream organizations lawful business decisions.

1.4 **Complexity Kills.** The internal complexity of large systems, the further complexity due to the rich interconnections between systems, the diversity of the technical environments in type and vintage of most large organizations and the need to make even small changes in most systems will overwhelm the testing infrastructure that was never designed to test "everything at once." Hence, much software will have to be put back into use without complete testing, a recipe, almost a commandment, for widespread failures.

2. **Determining Legal Liability Will Be Very Difficult.** Traditionally the makers of products that underlie customer operations are liable if those products are "defective" enough to unreasonably interfere with those operations resulting in damage. Y2K is different in that those customers themselves are also at risk for legal action if they fail to fulfill contractual obligations or fail to maintain their stock values and their failure to "fix" their Y2K problems can be shown as the cause. This customer base of technology producers cannot be overlooked in this issue. As it constitutes most of the organizations in the world, its needs and the implications of legislative actions on it considered now should not be overshadowed by undue focus on the much smaller technology producer sector. Nonetheless, even there liability is not as clear as tradition might indicate. Several factors make liability determination difficult, expensive, time consuming and not at all certain.

2.1 **There Is a Shared Responsibility Between Buyers, Sellers and Users of Technology.** Computer products themselves have only clocks that have dates in them. Application software products usually offer optional ways of handling dates. The customer/user organizations, especially larger, older ones, have created much of their application software in-house. When new products are introduced into the buying organization, the customer/user usually has vast amounts of data already in place that have date formats and meaning already established. These formats and meanings cannot be changed as a practical matter. The majority of, and the

longest-lasting, potential system problems lay in application software and the data they process, not in clock functions. (Clock-based failures, those likely to happen early in January 2000, while potentially troublesome, will be for the most part localized and of short duration.) Various service providers can be optionally called in to help plan and apply technology for business purposes. But it is only when these are all merged together and put to actual use that failures can emerge. It is very rare that one of them alone can cause a failure that carries legal consequences.

2.2 **Many Things Are Outside the Control of Any Defendant.** Incoming data from external sources outside its control may be corrupted, incompatible or missing. Devices and systems embedded in critical purchased equipment may be beyond the defendant's knowledge or legal access. Non-technical goods and services the defendant depends upon may not be available due to Y2K problems within their source organizations or distribution channel.

2.3 **There Will Be a Strong Defense of Impracticability.** Existing large-scale systems were not made safe from Y2K long ago for good reasons. Many systems resist large-scale modernization (e.g., IRS, FAA Air Traffic Control, Medicare) for the same reasons. Wide-spread, coordinated modifications across entrenched, diverse, interconnected systems is technically difficult if not impossible at the current level of transformational technology. New products must be made to operate within the established environment, especially date data formats. Technology producers will claim, with reason, that the determining factor in any Y2K failures lay in the way the customer chose to integrate their products into its environment. It will be asserted, perhaps successfully, by user organizations that economic impracticability prevented the prevention of Y2K failures. Regardless of the judicial outcome, it will take a long time and many resources to finally resolve. And that resolution may have to come in thousands of separate cases.

3. **Complexity and Time Negates Any Legal Liability Incentive.** Even if making all of an organization's systems "Y2K compliant" would render an organization immune from Y2K failures (it will not), the size and complexity of the undertaking is such that if any but the smallest organization is not already well into the work, there is not enough time for the incentive of legal liability to have any discernible positive effect on the outcome. As an analogy, providing any kind of incentive to land a man on Mars within one year would have no effect on anyone's efforts to achieve that unless they had been already working to that end for many years. A negative effect will result from management diverting resources from prevention into legal protection.

4. **The Threat of Legal Action Is a Dangerous Distraction at a Critical Time.** There will be system failures, especially in large, old, richly interconnected "systems of systems" as exist in the financial services and government sector. The question is how to keep such technical failures from becoming business or organization failures. We should be asking ourselves how we as a society can best keep the flow of goods and services going until the technical problems and failures can be overcome. The following points bear on these questions.

4.1 **Y2K Is a Long Term, Not Short Term, Problem.** Irrespective of the notion of Y2K being about time, a point in time, or the fixation on the rollover event at midnight December 31, 1999, or even the name 'Year 2000'

itself, Y2K computer problems will be causing computer system malfunctions and failures for years into the next decade. Y2K is much more about the dates that can span the century boundary represented in *data* that must be processed by *software* than it is about any calendar time or clock issues. Because of the vast amounts of these, the complex intertwining among them and our less than complete understanding of the whole, it will take years for the infrastructure to "calm down" after Y2K impacts themselves AND the impacts of the sometimes frantic and misguided changes we have made to it. The current prevention phase is only the beginning.

4.2 Rapid and Effective Organizational Adaptability Will Be a Prime Necessity. They key to an organization's ability to continue to provide the goods and services other organizations and individuals need to continue their operations will be determined by an organization's ability to adapt its practices and policies quickly and effectively in the face of potentially numerous, rapid and unexpected events.

4.3 Lawsuits, Actual or Threatened, Will Divert Requisite Resources. Preventing and minimizing harm to society from Y2K disruption is different than, and at times opposed to, protecting one's organization from legal liability. Addressing lawsuits, and even the threat of a lawsuit, will divert requisite resources, particularly management attention, from an organization's rapid and effective adaptation. This is already happening regarding technical prevention and will get worse the longer such legal threats remain. Organizational management has much more experience dealing with legal threats than they do addressing something as unique and unprecedented as Y2K. Their tendency is to address the familiar at the expense of the novel. They must be allowed to focus on the greater good.

4.4 Judicial System Overload Is Another Danger. Given the great interactive and interdependent complexity of Y2K's impact on the operations of our institutions on a national and global scale, the effort to determine exactly what happened, why it happened and who is legally responsible for each micro-event is itself a huge undertaking requiring the resolution of many questions. For the legal and judicial system to attempt to resolve the legal rights and remedies of affected parties while Y2K impacts are still unfolding will, in any case, threaten to overwhelm the legal and judicial system's capacity to assure justice in the matter, let alone its ability to continue to do its other necessary work.

For all of the reasons discussed above, we support limitations on Y2K-related legal liability. Minimizing harm and assessing blame are each formidable and important tasks, but they cannot be done simultaneously without sacrificing one for the other. Minimizing harm is more important and there is an increased threat to our welfare if assessing blame adversely interferes with our ability to minimize harm. The value of incentives at this late date is very small. We trust that the collective wisdom of Congress will find ways to reduce these threats. We have additional background material available. Please contact IEEE staff contact Paula Dunne if you are interested in this material. We have other ideas beyond the scope of this legislation of what the U.S. federal government can do to help minimize

harm throughout this crisis. We are ready to help in any way you may deem appropriate.

Respectfully,

THE INSTITUTE OF ELECTRICAL AND
ELECTRONICS ENGINEERS (IEEE),
TECHNICAL ACTIVITIES BOARD, YEAR 2000
TECHNICAL INFORMATION FOCUS GROUP.

Mr. President, the bill we passed earlier this week is modest. It may very well not meet all the concerns expressed by the IEEE. The legislation may, however, at least reduce these threats. As a consequence, we must enact meaningful legislation and we must enact it quickly.

USE OF CAPITOL GROUNDS

Mr. GORTON. Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of H. Con. Res. 105, which is at the desk.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

A concurrent resolution (H. Con. Res. 105) authorizing the law enforcement torch run for the 1999 Special Olympics World Games to be run through the Capitol Grounds.

There being no objection, the Senate proceeded to consider the concurrent resolution.

Mr. GORTON. Mr. President, I ask unanimous consent that the resolution be agreed to, the motion to reconsider be laid upon the table, and that any statements relating to the resolution be printed in the RECORD.

The PRESIDING OFFICER. Without objection, it is so ordered.

The concurrent resolution (H. Con. Res. 105) was agreed to.

NATIONAL FATHER'S RETURN DAY

Mr. GORTON. Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of S. Res. 125, submitted earlier today by Senators LIEBERMAN, GREGG, and others.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

A resolution (S. Res. 125) encouraging and promoting greater involvement of fathers in their children's lives and designating June 20, 1999, as "National Father's Return Day."

There being no objection, the Senate proceeded to consider the resolution.

Mr. GORTON. Mr. President, I ask unanimous consent that the resolution be agreed to, the preamble be agreed to, the motion to reconsider be laid upon the table, and that any statements relating to the resolution appear at the appropriate place in the RECORD.

The PRESIDING OFFICER. Without objection, it is so ordered.

The resolution (S. Res. 125) was agreed to.

The preamble was agreed to.

The resolution, with its preamble, reads as follows:

S. RES. 125

Whereas more than 1 out of every 3 children currently live in a household where the child's father does not reside;

Whereas approximately half of all the children born in the United States will spend at least half of their childhood in a family without a father figure;

Whereas approximately 40 to 50 percent of all marriages are predicted to end in divorce;

Whereas approximately 3 out of every 5 divorcing couples have at least 1 child;

Whereas almost half of all children aged 11 through 16 that live in mother-headed homes have not seen their father in the last 12 months;

Whereas 79 percent of people in the United States believe that the most significant family or social problem facing the country is the physical absence of fathers from the home, resulting in a lack of involvement of fathers in the rearing and development of children;

Whereas the likelihood that a young male will engage in criminal activity doubles if he is reared without a father and triples if he lives in a neighborhood comprised largely of single-parent families;

Whereas studies reveal that even in high-crime, inner city neighborhoods, over 90 percent of children from safe, stable, 2-parent homes do not become delinquents;

Whereas compared to children reared in 2-parent families, children reared in single-parent families are less likely to complete high school and thus, more likely as adults to obtain low paying, unstable jobs;

Whereas researchers have linked the presence of fathers with improved fetal and infant development, and father-child interaction has been shown to promote a child's physical well-being, perceptual abilities, and competency for interpersonal relations;

Whereas researchers have also found that both boys and girls demonstrate a greater ability to take initiative and exercise self-control when they are reared by fathers who are actively involved in their upbringing;

Whereas the general involvement of parents in the lives of their children has decreased significantly over the last generation;

Whereas a Gallup Poll indicated that over 50 percent of all adults agree that fathers today spend less time with their children than their fathers spent with them;

Whereas nearly 20 percent of children in grades 6 through 12 report that they have not had a meaningful conversation with even 1 parent in over a month;

Whereas in a broad survey of 100,000 children in grades 6 through 12, less than half of the children "feel they have family boundaries or high expectations from parents or teachers";

Whereas 3 out of 4 adolescents report that "they do not have adults in their lives that model positive behaviors";

Whereas in a widely cited study of the health risks to the young people in the United States, University of Minnesota researchers found that "independent of race, ethnicity, family structure and poverty status, adolescents who are connected to their parents, their schools, and to their school community are healthier than those who are not", and that "when teens feel connected to their families, and when parents are involved in their children's lives, teens are protected";

Whereas millions of single mothers in the United States are heroically struggling to raise their children in safe and loving environments;