I intend to use the subcommittee that I chair of the full Commerce Committee that is chaired by Senator HOLLINGS to initiate a dialog among congressional, corporate, military, and nonprofit leaders to begin a new effort to mobilize information technology in times of crises.

As we seek to prevent future disasters, I believe that the technology professionals of this Nation in many of our leading companies—as most Americans—want to use their skills, their equipment, and their talents to answer this call and do their part.

I propose with a national emergency technology guard—what I call tech guard—that we give to the leading information technology professionals in this country a chance to use their ingenuity and creativity to ensure that there is greater safety and stability for our communities and our citizens in the coming days.

I yield the floor.

The PRESIDING OFFICER. The Senator from California.

Mr. BYRD. Madam President, will the distinguished Senator yield?

Mrs. FEINSTEIN. Absolutely.

Mr. BYRD. I assure her that if she wants the opportunity to proceed, I will resist in my remarks and take my chair.

Mrs. FEINSTEIN. Fine. Please proceed.

The PRESIDING OFFICER. The Senator from West Virginia is recognized.

Mr. BYRD. I thank the Chair.

Madam President, I ask unanimous consent that I may speak for not to exceed 40 minutes. I do so with the understanding, as I have already indicated, I will be very glad to suspend my remarks at any time the distinguished Senator from California wishes to take the floor.

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

SPACE WARS

Mr. BYRD. Madam President, during the August recess, The New York Times Magazine ran a cover story entitled ''The Coming Space War'' The article caught my interest, as I am sure that it intrigued many other readers. The author's contention is that the U.S. military is considering a campaign to achieve military superiority in space similar to the kind of military superiority that U.S. forces seek in the air, on land, and from the sky. Military superiority in space is deemed critical in order to protect our increasing dependence on satellites for communications, surveillance, commercial and military purposes. On August 24, President Bush named Air Force General Richard Myers, a former chief of the U.S. Space Command and of the North American Aerospace Defense Command, as the new Chairman of the Joint Chiefs of Staff. General Myers' selection as Chairman is in keeping with President Bush's strong support for building a national missile defense, NMD, the follow-on to President Reagan's Star Wars Strategic Defense Initiative, SDI.

It is certainly true that our dependence—and that of other developed and developing nations—on these winking, blinking objects winging through the night sky has increased exponentially over the last decade. It has rapidly become almost impossible to imagine a world without the Internet, the World Wide Web, electronic mail on handheld computers or cellular phones, automated teller machines, instantaneous worldwide credit card use, and other forms of global telecommunications and electronic commerce. This expansion and its dependence on satellite links will continue to increase in future decades. We are all dependent, and, therefore, we are all vulnerable, to the seamless and uninterrupted access to satellites. Most people, however, do not understand these technologies. I certainly do not. Like most people, I can understand that I may be vulnerable in ways that are new to me, a boy from the Mercer County hills in southern West Virginia. But how best to address this new vulnerability?

The author of The New York Times Magazine article describes three fundamentally different philosophical approaches to this brave new realm of space. The first is a military approach, which opens up a Pandora's box of weapons in space. The military, it is reported, has looked into the future and come to the conclusion that space represents the ''ultimate military 'high ground,' '' requiring the military to develop and deploy whatever technology is necessary to achieve what has been termed ''Global Battlespace Dominance,'' or ''Full Spectrum Dominance.'' The tools needed might include everything from National Missile Defense to antisatellite laser or high-powered microwave weapons, or clusters of microsatellites to hyperspectral surveillance satellites and other space sensors—or all of these things. Some of these systems are under development now or due for testing soon, according to the article, already undercutting the author's assertion that the weaponization of space is coming, when, in fact, it may already be upon us. Already—already—additional funding to the tune of $190 million is being sought in the defense authorization and appropriations bills for space weapons.

Now, if I, like most people, do not really understand the technologies behind satellite communications and cell phones, it is even harder to understand the technologies behind hyperspectral surveillance satellites or space-based lasers. And that lack of technical expertise means, like most Americans, I must depend on the Pentagon to explain why these new technologies are needed, why no other alternatives will work, and what new questions and challenges might be unleashed by these choices. That is not, I suggest, the best way to perform oversight, but, unfortunately, there are few good alternatives.

The second philosophical approach to space outlined by the author is that of the purist, seeking to unilaterally ban weapons from space and seeking to return the heavens to an earlier, unsullied era—an earlier unsullied era. This is not, in the author's view, a realistic hope. The final philosophical approach, the one seemingly favored by the author, is that of the ''pragmatist''—the ''pragmatist.'' This approach recognizes the inevitable migration of commerce and the military to space, but hopes to hold the line at surveillance. Weapons for space would, in this view, remain in the research and test phase, to be launched only in response to another nation's attempt to put weapons in space. This launch-on-warning approach would come in conjunction with further diplomatic efforts to establish operating rules for space modeled on those in place for blue-water ships on the open ocean.

In the pragmatist's scenario, existing space treaties would be retained: the 1967 Outer Space Treaty banning nuclear weapons in space and the 1972 Anti-Ballistic Missile Treaty which, in addition to establishing the surveillance system to avoid nuclear conflict, also forbids most antimissile testing. One way of reducing competition and tensions in space proposed in the article is by ''mutually assured awareness'' in space. The U.S. would develop and make globally available direct video access to space, so that anyone could confirm any hostile action in space, as opposed to mishaps from natural causes. I am not sure that this is technologically feasible, but who am I to question it. The concept of greater openness is the point. It is interesting, in this light, to note that the 1975 Convention on Registration of Objects Launched into Outer Space, operated by the United Nations, has not been very successful. In fact, the nation with the largest number, if not percentage, of unregistered payloads is the United States. The United States has failed to register 141 of some 2,000 satellite payloads. Only one nation is in full compliance—Russia. And, of course, it is the Bush Administration advocating the abrogation of the ABM Treaty in order to commence construction on the first National Missile Defense ground site in Alaska.

I cannot say at this point what philosophical camp that I might find myself. The author, Jack Hitt, closes his article by pointing out that if the United States is not successful at holding the line at surveillance, if we ''plan, test, and deploy aggressively as the lone superpower, we make certain that after a brief respite from the cold war's nuclear competition, we will once again embark on a fresh and costly arms race. And with it, assume the dark burden of policing a rapid evolution in battlespace.'' This specter rings true. It should concern us, and it should be debated by the people and the people's representatives. As it stands now, the U.S. military is moving ahead on a trajectory that is both costly and one that

carries with it a kind of philosophical imperialism with dangerous ramifications.

Now, what do I mean by philosophical imperialism? The military's plans for ''full spectrum dominance,'' and space superiority, if fully realized, would mean that in some not-so-distant future, the United States would be in a position to (in the words of the Air Force Strategic Master Plan) ''operate freely in space, deny the use of space to our adversaries, protect ourselves from an attack in and through space and develop and deploy a N[ational] M[issile] D[efense] capability.'' The U.S. would presumably, then, have information dominance in this arena as well. Thus, the U.S. would be in a position to know if a conflict between two nations, say India and Pakistan, was about to explode into open, even nuclear, warfare. The U.S. would also be in a position to act, but how? Would we shoot down the missiles from one side or the other, or both? If we shot down the missiles that each nation was firing at the other, what would happen if we missed one and it destroyed a city? What is our responsibility? What if we chose not to act because the conflict did not involve us, and tens of thousands or millions of innocent people died? What is our responsibility?

If the United States achieves, at enormous expense, space superiority, how could we avoid becoming the space marshal on this dangerous new frontier? If we detect a threat against a third party, do we warn the third party? If we provide a warning, and are asked to interdict the attack because only we can, how do we say no? How do we avoid making our military personnel and our commercial enterprises overseas the targets of reprisals from those whose attacks we thwart? It is difficult for me to envision a future in which we could avoid such an imperialist, if benevolent, dictatorship in space.

The role of global policeman and space marshal would not come cheaply, either, and in this period of shrinking or perhaps vanishing surpluses, we cannot ignore those costs. Space dominance would not replace air, land, or sea dominance, but would be additive. In fact, dominance in space might conceivably add to the cost of protecting forces on ground by making them targets for the kind of retaliation I mentioned previously. Gaining and maintaining a robust presence in space is technologically challenging. An airborne laser, reportedly operational sometime around 2010, is budgeted at $11 billion. It will cost still more to build and deploy a space-based laser. The estimated cost for a working space laser test is about $4 billion—that is $4 billion merely to get to a test of a laser in space. A test is expected as early as 2010.

The defense budget already consumes a bit over half of the domestic discretionary budget that Congress must allocate among programs ranging from health research to agriculture, education to highway and air traffic safety, environmental protection to diplomacy. How much more are we willing to trade between guns and butter? How much must we trade, or might alternatives be found in the course of free and open debate?

As most people are now well aware, those large budget surpluses so optimistically predicted just a few weeks ago—it is not funny—while the economy was booming—and so irresponsibly paid out in the form of vote-buying ''tax refunds'' before the actual surpluses materialized—are now gone, gone. Indeed, the Administration has had to employ a few green-eyeshade accounting tricks just to find a few dollars beyond the Social Security surplus to spend on other priorities. And the administration's No. 1 priority seems to be the defense budget—well, that might be all right—but more particularly, the defense budget for National Missile Defense and space weapons. The President wants an additional $39 billion for defense—more, perhaps, now—including more than $8 billion to research and test his missile defense plan.

I am troubled that this Administration's number one priority is a project whose scientific feasibility is in doubt. That is the problem.

We could very well be rushing down a path that leads to spiraling costs and lengthy delays. In the 1960s, Congress was told that research of a Super Sonic Transport plane was essential to U.S. competitiveness in future decades. I was here. We spent nearly a billion dollars developing this aircraft before cancelling it in 1973, a billion dollars then would be much larger now. I do not think we have lost one whit of competitiveness because of the cancellation of that program.

We traveled down the same path again when we considered funding the Superconducting Super Collider. The $8 billion program was supposed to fulfill a supposedly vital role in basic scientific research, but we learned that the true cost was nearly fifty percent greater than expected, and we were not even sure it could ever work. Congress had to step in to end this program in 1993. Again, I do not think that we have lost any crucial advantage by not going forward with that project.

I can think of no one who believes that a national missile defense system will be deployed on-time and under budget.

I am troubled, not because such weapons might be needed, but because we are spending huge sums on them without being sure in our own minds that the weaponization of space is the best course of action to ensure our security.

If the United States builds a missile shield to shoot down enemy missiles as soon after they launch as possible, a smart adversary would attempt to shorten the amount of time that our defenses have to react, in addition to taking measures to fool our defenses. One way to shorten the time between launch and impact is to launch closer to the target—either from a submarine offshore, or, as the seas become more transparent to new technologies, from space. Another alternative for a wily adversary would be to switch gears entirely and employ other forms of weapons of mass destruction, such as chemical or biological weapons, that could be dispersed without using long range or intercontinental missiles whose launch points make determining the adversary a simple exercise in geometry. We must be aware that our actions produce reactions.

We can assume that if the United States deploys weapons in space, even in a purely defensive posture, even in a global policeman role, not all of our friends, allies, and competitors will see this as benign. We have only to consider the reaction of the world to the recent statements by the Administration concerning National Missile Defense and the potential abrogation of the 1972 Anti-Ballistic Missile Treaty. Just what would we do when some other nation—friend or competitor—threatens our space superiority by deploying their own weapons there, even if for avowedly defensive purposes? Again the vision of a space marshal comes to mind, this time facing off another gunman down the dusty main street of space. Does the U.S. Marshal fire first, second, or is it a long, tense stand-off with weapons cocked? None of the alternatives sounds particularly promising.

Though it is difficult to conceive, would a military competition in space weaponry deter commercial satellite growth or the growth of e-business that depends on global satellite networked communications? Once weapons are in space, does the cost of doing business in space go up to the point that global commerce is stifled? That would be very bad news for business, for consumers, and for the prospects of returning our national budget to surplus or even to balance.

These are all ramifications of our current course of action that merit discussion—broad, open, public discussion and debate. I do not wish for the United States to be left undefended—far from it—but neither do I wish for the military to be left, in the face of public silence, to make decisions that spend our treasure and which may create new problems for us in arenas yet unconsidered.

In his farewell address on January 17, 1961, President Dwight D. Eisenhower looked upon the rising power and influence of armament producers and at the increasing share of technological research that is performed for the federal government. He warned the councils of government to ''guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex . . .,'' and to ''be alert to the . . . danger that public policy could itself become the captive of a scientific-technological elite.''

Mr. Eisenhower was concerned that, among other things, ''democracy . . . survive for all generations to come, not to become the insolvent phantom of tomorrow.'' He urged that ''[O]nly an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.''

Coming from a former supreme commander of the Allied military forces during World War II, President Eisenhower's words carry the weight of his experience. They are also uncomfortably prophetic. Just forty years after President Eisenhower gave his warning, President Bush proposes to invest many billions of dollars to achieve military superiority in a new realm, where there currently is no threat, jeopardizing the economic health of the nation and creating instability and mistrust in the hearts of other nations. This will occur unless the citizenry—and its elected representatives—we members of the House and U.S. Senate—especially us—consider and agree upon this course of action. Silence does not equal assent. We must talk, and learn, and consider.

Again, I am admittedly a layman when it comes to high-tech gadgetry on earth, let alone in space. But it seems to me that we must set aside the whizbang and drama of lasers and satellites to consider the real, age-old questions—those that have plagued the great generals throughout time. We should be taking stock of what we have to gain and what we have to lose by moving the lines of battle. We must consider whether or not we have the necessary weapons to protect ourselves and our land before we send our military into new and vastly different frontiers. We should assess the real, known threats to our Nation, and gauge whether we have the weapons and the resources to remain secure, and whether our time, talent, and treasure would be better spent fending off those most likely threats or devising new unproven plans of attack and fabulously expensive means of battle. And we should ponder the awesome responsibility of militarizing space and then being the world's space cop before we rush headlong into the twilight zone called national missile defense.

Madam President, I believe that it would be both wise and prudent to back off just a little bit on the accelerator that is driving us in a headlong and fiscally spendthrift rush to deploy a national missile defense and to invest billions into putting weapons in space and building weapons designed to act in space. That heavy foot on the accelerator is merely the stamp and roar of rhetoric. The threat does not justify the pace. Our budget projections cannot support the pace.

Let us continue to study the matter. Let us continue to conduct research. But the threat, as I say, does not justify the pace at which we are traveling. Our budget projections cannot support the pace, so let us slow down a bit, look at the map, and consider just where this path is taking us.

Madam President, I thank the distinguished Senator from California who is here prepared to manage the appropriations bill. She is waiting patiently.

I take this opportunity to congratulate her also for the excellent work she has done in preparing this legislation. It was moved through the full Committee on Appropriations yesterday. She is here today prepared to guide its way through this Senate. I thank her on behalf of the Senate and on behalf of the Nation for the service she has rendered and is rendering and will continue to give us.

I yield the floor.

Mr. DORGAN. Madam President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. REID. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. CARPER). Without objection, it is so ordered.

CONCLUSION OF MORNING BUSINESS

The PRESIDING OFFICER. Morning business is closed.

MILITARY CONSTRUCTION APPROPRIATIONS ACT, 2002

Mr. REID. Mr. President, I ask unanimous consent that the Appropriations Committee be discharged from further consideration of H.R. 2904, the Military Construction Appropriations bill, and that the Senate then proceed to its consideration; that immediately after the bill is reported, Senator FEINSTEIN be recognized to offer a substitute amendment, which is the text of S. 1460, the Senate committee reported bill; that the amendment be agreed to and considered as original text for the purpose of further amendment, and the motion to reconsider be laid upon the table; that the only other amendment be a managers' amendment; that the debate time on the bill and managers' amendment be limited to 40 minutes, equally divided and controlled in the usual form; that upon disposition of the managers' amendment, the motion to reconsider be laid upon the table; that the bill be read a third time, and the Senate vote on passage of the bill.

The PRESIDING OFFICER. Is there objection?

Mr. KYL. Mr. President, I simply didn't hear what the assistant majority leader just said.

Mr. REID. I just basically said we are going to move to the military construction appropriations bill.

Mr. KYL. Was that the nature of the unanimous consent request?

Mr. REID. Yes.

Mr. President, I further ask unanimous consent that the Senate insist on its amendment, request a conference with the House on the disagreeing votes of the two Houses, and the Chair be authorized to appoint conferees on the part of the Senate with the above occurring with no intervening action or debate.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

Mr. REID. Mr. President, I ask unanimous consent that the vote on passage of the bill, H.R. 2904, occur immediately, with the time for debate on the bill to occur following the vote.

The PRESIDING OFFICER. Under the order, the bill is discharged from the committee.

The clerk will report the bill by title.

The legislative clerk read as follows:

A bill (H.R. 2904) making appropriations for military construction, and for other purposes.

Mrs. FEINSTEIN. Mr. President, I am very pleased to join with my ranking member, Senator HUTCHISON of Texas, to bring before the Senate the 2002 military construction appropriations bill and report. I point out that it is a bipartisan bill, it is carefully thought out, it is carefully balanced, and it is timely.

The bill provides $10.5 billion in new budget authority. This represents a 17.5-percent increase over the fiscal year 2001 funding level and a 5.3-percent increase over the President's budget request. The bill, as reported from the committee, meets the budgetary authority and outlay limits established in the subcommittee's 302(b) allocation.

This is a robust bill, but it is a carefully considered and carefully balanced bill. Our goal from the outset has been to address the highest priority military construction requirements, both at home and abroad. The final product is the balanced mix of readiness projects, barracks and family housing projects, quality-of-life programs, such as child development centers, and an array of Reserve component initiatives.

It is the military construction bill that funds the installations—the home ports and the home bases—of our troops and ships and aircraft. It is the military construction bill that builds the piers and hangars and maintenance shops and operational centers that ready our troops and equipment for deployment. It is this bill that builds the barracks and family housing and childcare centers and medical facilities that serve America's military troops and their families. This bill funds the infrastructure that provides the foundation for training and preparing our military to fight, and for housing their families when they are away.

Given the events of the past few weeks, and the events that we expect to unfold over the coming weeks and months, this bill could not be more timely. The bill was reported out of the full Appropriations Committee only