

guys who know, who have done it, who sent people out to die and been right out there with them say things like, If I was President, I would have relieved him 3 years ago. That is 2003. That is when it started, when they started ill prepared without the battle armor, without the vehicle armor, without sufficient supplies. We are going to just run in and do it, and we are going to be out in 6 months. Remember when they told that lie? And all of us stood around and said, 6 months? Really? This is going to be a cakewalk.

They didn't tell the truth to the American people or to their own troops. And that is why guys like this say get them out of there if we are going to have any change.

Mr. LARSON of Connecticut. Mr. Speaker, I thank the gentlemen from Maine, New York, Maryland, Massachusetts, and Washington State for coming down here this evening.

We come down here out of love of country and the desire to fulfill our constitutional responsibility. There is no doubt in my mind that our colleagues on the other side of the aisle love their country as much as we do.

I cannot understand why an administration continues to attack those who, out of love of country, speak out and dare to speak truth to power, that are willing to ask the unimagined questions and perhaps give unwelcomed answers to the administration. But that is the work that is required of elected Members of the United States Congress under our Constitution. That is our sworn obligation to the people of this great country of ours and will continue to be our obligation.

It is our sincere hope that we can move this Nation in a new direction. And with a Democratic-controlled Congress, we believe that is the best hope for our colleagues on the other side to join with us in creating what is in the best interest of our troops, our families, and the very security of this Nation.

Thank you, gentlemen, each of you, for joining us this evening.

#### NATIONAL SECURITY AND ELECTROMAGNETIC PULSE

The SPEAKER pro tempore. Under the Speaker's announced policy of January 4, 2005, the gentleman from Maryland (Mr. BARTLETT) is recognized for 60 minutes as the designee of the majority leader.

Mr. BARTLETT of Maryland. Mr. Speaker, among many priorities that the country and the Congress face, our national security is probably preeminent today in the minds of many people and in the Congress and in our administration. And today I would like to talk about one aspect of national security that will probably be unknown to a great many Americans, and to those few who know about and have studied it, this will remind them of the potential for this threat to our country, indeed, to our whole society.

Our first glimpse of the possibility of this threat occurred in 1961. It was in the Pacific and we were then doing a series of nuclear tests, and this was our first and last high altitude test. It was over Johnston Island, and the weapon was detonated above the atmosphere the first time that we had done that. No one knew what was going to happen as a result of that test, and the consequences were unexpected and really quite striking.

Hawaii was about 800 miles away. If you think back to 1961, we did not have all of the electronics that we have today. We were more in an electrical infrastructure than than we were in an electronic infrastructure, and the electrical infrastructures are very much more robust than an electronic infrastructure because you are dealing with big structures and heavy wires and so forth. Even so, the effects of this detonation above the atmosphere resulted in the shutdown of electrical circuits. There were many disruptions in electrical and certainly in electronic equipment such as existed those days in Hawaii 800 miles away. The Soviets were also doing testing simultaneously with ours and they had more experience with this phenomenon. We now have a name for this phenomenon. We call it electromagnetic pulse, or EMP.

And here I have a chart which shows very schematically what is happening. We detonate the weapon above the atmosphere, and there is an immediate distribution of gamma rays that travel at the speed of light that will strike every object within line of sight. And when these gamma rays reach our atmosphere, they produce what is called Compton electrons, all of this essentially at the speed of light, and these Compton electrons then become a force which is very much like a nuclear storm magnified many, many times. And if you think, Mr. Speaker, of the disruptions that a robust solar storm can produce to our communications here, you can get some idea as to the potential impact of an EMP. It is sometimes called high altitude or HEMP.

We since have learned a great deal more about that than we knew then, but the feature that we learned then was that wide areas are affected. You can have very high field strengths, and here it says 50 kilovolts per meter. We have since learned, as reported by the Russian generals, and I will come to that report in a few moments, that the Soviets purportedly designed and built electromagnetic weapons that would produce 200 kilovolts per meter; so that is four times larger than the number which is given here in this chart. This was May of 1986. That was 20-some years after the explosion, but a long time before these Russian generals were interviewed. There is a very broad frequency band running from very, very short wavelengths to very long wavelengths. The pulse lasts more than 2 minutes, but it comes on with such abruptness that our surge protectors for your computer and other devices

are useless because the pulse is through the surge protector before it sees it. So there is now nothing out there the equivalent of EMP.

The next chart shows on the right that just about everything is affected by EMP. It has a missile which is taking off there. We are not even sure that we can launch through a robust EMP laydown. What I am told is that we tested our missiles and we found some deficiencies and we corrected that and we have done that several times, and the last time we corrected the deficiencies, we intentionally did not test again, hoping that we had fixed all the deficiencies. But knowing that if we tested and found deficiencies that that intelligence would probably get out to our enemies and they would know that we were vulnerable, and rather than run that risk, we believe that we had corrected all the deficiencies; so we have not tested, and, hopefully, a potential enemy will also believe that we have corrected all the deficiencies. But that is not a certainty. We do not yet know for certain that we could launch our ballistic missiles through an EMP laydown. It shows effects on automobiles.

By the way, if you have a car or truck that has a coil and a distributor, you are probably immune to EMP. But all modern cars, as you know when you take your car for service, has a lot of computers. Indeed, a computer is required for servicing your car. So all of the new vehicles are vulnerable to EMP. Airplanes, only a few of our military airplanes are EMP hardened. All of the other planes are vulnerable to EMP effects.

Here on the left it shows the coverage with the height of blast 60 miles and how large an area. That is line of sight, with the simple geometry of the Earth and the height. If you are 200 miles up, you cover a bigger area. And if you are 300 miles high up with the center of that in Iowa, Nebraska, about in that area, it covers our whole country; or the margins of our country in south Florida, northwest Washington State, and Maine, all are covered with a blast of about 300 miles high above Nebraska or Iowa.

The next chart is a little more detailed presentation of the blast area. And it shows that it is not simple concentric rings because of the dynamics of the detonation of a nuclear weapon. You have a distribution of intensities; but generally speaking, out at the margins of the country with 480 kilometers, about 300 miles, with a detonation of that blast, you see from the purple here that you have got about 50 percent of maximum at the margins of our country.

The level to which we tested is classified, but if the Russian generals are correct that they developed weapons at 200 kilovolts per meter, that would mean 100 kilovolts per meter at the margins of our country. And there is concern that even when we test and harden that we may not have hardened it to an adequate level.

The next chart answers an important question that I am sure a lot of people ask at about this point, and that is if there is such enormous vulnerability to EMP, why would you be talking about that and giving our potential adversaries a heads up that we are vulnerable? To help understand that, most Americans may not know about it, but every one of our potential enemies knows about it. I have here just one little chart which, as you can see, is not in English. It is in Russian, as a matter of fact. And although I cannot read Russian, I certainly can look at the sketches here. And what we see is EMP.

□ 1730

Here is a weapon detonated above the atmosphere. And here you see the effect of that. This is the EMP pulse here lasting a long time. By the way, the fact that the wavelengths in that pulse go from extremely short to extremely long mean that they can couple with almost everything.

I am told that the smallest electronic parts on the warehouse shelf will couple with some of the shortest waves. And long, long lines like railroad tracks will couple with the longest waves. As a matter of fact, they will even couple with wires that are buried several feet underground.

Without technical knowledge, what we are talking about almost seems like Buck Rogers and science fiction. A blast of a single weapon up to 300 miles in the sky, and by the way, if it were in the daytime and you were looking away from it, you would not even know it happened. If you were looking at it, obviously, you would see it because it was very bright, and it was line of sight.

You are not hurt by it. It has no effect on our bodies. But if you have an electronic watch, that will stop. If you get in your car, that probably will not run. The phones will not work. There will be no power grid. There are literally tens of thousands of what are called SCADA, which are little control devices in our power grid. And they all contain chips, micro-electronics. And many of them were manufactured by organizations that do not even exist now because they have been in the field for a long time.

And all of those are gone. Signals traveling through fiber will get there. But if you have anything other than optical switching, if you have electronic switching, the switches will be gone. And so even if you are using fiber, you still cannot transmit your data if you are using other-than-optical switching.

So this chart demonstrates very clearly that our enemies know about EMP, because this is from a Russian publication, and it shows the effects of EMP. This is the power grid. They show the transformers going out.

By the way, if our big transformers go out, there are no replacements on the shelf. The biggest ones are not even

manufactured in this country. We will need to go to Europe or Scandinavia, and you place your order, and in a year to 18 months, they will have the transformer for you.

I was concerned about EMP, and I called a friend of mine, Tom Clancy, who I knew had an EMP scenario in one of his books. And he lives on the Eastern Shore of Maryland. I knew him. So I called Tom and asked him for some information on EMP.

He said, if you have read my book, you know as much about EMP as I know, but let me refer you to, in his opinion, the smartest man hired by the U.S. Government. And he gave me the name of a Dr. Lowell Wood who worked for Lawrence Livermore Lab, one of our big nuclear labs out in California.

Well, this was back, oh, probably 12, 13 years ago, a while ago. And cell phones were not all that popular. You may remember that we were using pagers. If you wanted to communicate with someone, why you paged them. And that went up to a satellite and back down to their pager. And they got the little message, please call so and so. I did that with Lowell Wood. I thought he was in California. And he happened to be in Washington. And of course the same satellite that would have brought the signal down to California brought it down to Washington. Within an hour, he was sitting with me in my office.

Dr. Lowell Wood was indeed a font of knowledge on electromagnetic pulse. I was concerned that, because of cost considerations, that our military was waiving EMP hardening on essentially all of its new weapons systems and that that made us vulnerable to an EMP attack.

And so I got in legislation the establishment of an EMP commission. And the EMP commission was set up and functioned for 2 years. Normally our commissions work for a year. But because of the details of this legislation, they were able to work for 2 years. They brought forth a big report. This is the executive summary of that report. And this was issued in 2004.

This is the Executive Summary of the Report of the Commission to Assess the Threat to the United States from Electromagnetic Pulse EMP Attack.

And here are a number of PowerPoint presentations that they prepared, because they were going around the country briefing a large number of organizations, Federal and State and private, on the results of their study.

The next chart shows the commissioners. Here you will see Dr. Johnnie Foster is the developer of almost all of our new atomic weapons. Dr. Bill Graham, who was the chair of this, was Rumsfeld's co-chair when they did that very important study on the emerging ballistic missile threat that came out a few years ago.

It is interesting. I spent a couple of days in Moscow with Bill Graham and Rumsfeld when we were briefing mem-

bers of the Russian Duma so that they would understand that our withdrawal from this treaty that prohibited us from protecting ourselves against intercontinental ballistic missiles had nothing to do with Russia because we cannot imagine that we could produce a robust enough protection system to protect us against the literally thousands of intercontinental ballistic missiles that Russia has. But there are some new players on the scene out there, like China and North Korea and Iran and who knows who may get in line.

And we could, we felt, with the development of a system, the successful test just a few days ago, be able to take out a few weapons from a country like this.

Another very important member of this commission was Dr. Joan Woodward, who is the deputy director of the Sandia Labs out in Albuquerque, New Mexico. I was out visiting my son there who works at the labs. And he brought me home some material from the lab that led me to believe that they might have some knowledge that would be helpful in this EMP study.

So I asked for a briefing. I had not looked at the list and remembered specifically who was on this list of commissioners. And I came in for a 5-hour classified briefing on the commission's work. And Dr. Joan Woodward had at her disposal all of the resources of the Sandia Labs. So they did a really magnificent job of studying the threat, not just to our military but to our national infrastructure.

The next chart shows something which alarmed them. This is from their commission report. We have redacted here the names of the Russian generals. But they interviewed two Russian generals who told them that Russia had designed and built a super EMP nuclear weapon capable of generating 200 kilovolts per meter. That is an enormously high pulse.

Russian, Chinese and Pakistani scientists are working in North Korea. Now, I am not saying this. I am taking this from the report of the EMP commission. Russian, Chinese and Pakistani scientists are working in North Korea and could enable that country to develop an EMP weapon in the near future. Now, this is the assessment of the EMP commission.

The next chart just builds on the point that I made that most of our citizens may not know anything about EMP, because it is really a Buck Rogers Star Wars kind of a phenomena. It almost seems like science fiction.

The fact is that, although few of our people know about EMP, all of our potential enemies know about EMP.

And I just wanted to make that very clear, because I do not want anybody to have the notion that we are somehow informing a potential enemy of something that he does not know about.

This first quote here is a very interesting one. This is not exactly the quote as I remember, but it is a pretty

good paraphrase, because I was there. It was May 2nd of 1999. And I was sitting in a hotel in Vienna, Austria, with ten other Members of our Congress and three members of the Russian Duma.

I can tell you exactly when we were there. We were there when the three prisoners, hostages, whatever you want to call them were released by Yugoslavia. You may remember that event. They were released to Jesse Jackson as you may remember.

For 2 days we sat in that hotel room hammering out a framework for an agreement. Five days later, that was voted by the G-8. Russia joined the G-7, because the only country that the Bosnians had enough respect for to be controlled by them was Russia. And when the G-7 joined with Russia, they used the framework agreement that we had developed. And that ended the hostilities there as you may remember.

Well, one of the three Russians there was Vladimir Lukin. He was the ambassador here at the end of Bush 1, the beginning of the Clinton administration. At the time we were there, he was the chair of their equivalent of our International Relations Committee in the Russian Duma.

He is a fairly short fellow with even shorter arms. And he was extremely angry. And he sat there for 2 days with his arms folded across his chest looking at the ceiling. And then he made this statement, and what he said was, as I remember it, "if we really wanted to hurt you with no threat of retaliation, we would launch an SLBM and we would detonate a nuclear weapon high above your country and shut down your power grid and your communications for 6 months or so."

That was Vladimir Lukin. Another Russian who was there, who was I think the third ranking Communist, and yes, there is still a big Communist Party in Russia, who was the third ranking Communist, Alexander Shurbanov. And he smiled and he said, "if one weapon would not do it, we have some spares, like I think at least 7,000 spares."

You see, the reason for no fear of retaliation was that if it was launched from the ocean, we would never know where it came from. Well, that was his comment.

Now, all of this is from the EMP commission. None of those are my statements. Chinese military writings describe EMP as the key to victory and describe scenarios where EMP is used against U.S. aircraft carriers in a conflict over Taiwan.

Again, a survey of worldwide military and scientific literature sponsored by the commission found widespread knowledge about EMP and its potential military utility, including in Taiwan, Israel, Egypt, India, Pakistan, Iran and North Korea.

This next bullet is kind of repeated in the next chart, so I will skip to this one. Iran has tested launching a Scud missile from a surface vessel, a launch mode that could support a national or

transnational terrorist EMP attack against the United States.

□ 1745

It should be noted that you do not have to be very technically adroit or very competent to launch an EMP weapon, because if you miss by 100 miles that is just about as good as a direct hit because there is a large area that this covers.

A Scud missile can launch about 180 miles high. That will not blanket the whole United States, but a Scud missile launched from a ship off our coast could shut down all of New England and much of the mid-Atlantic area with an EMP blast. Now, if you thought recovery from Katrina was difficult, imagine an area many times that large with no remaining infrastructure in terms of communications or power. That is the problem we would have. If it blankets our Nation, of course, we have an essentially irresolvable problem.

The next chart continues with what our potential adversaries know about EMP, and again, all of this is from the EMP commission report. If the world's industrial countries fail to devise effective ways, and this is an interesting one from Iranian Journal in 1998, even before the present wild man who is there, if the world's industrial countries fail to devise effective ways to defend themselves against dangerous electronic assaults, then they will disintegrate within a few years. 150,000 computers belong to the U.S. Army. It is probably more than that now, and if the enemy forces succeeded in infiltrating the information network, which an EMP would do if it shuts us down, then the whole organization would collapse, the American soldiers could not function, nor would they be able to fire a single shot. Now, I am not sure that is totally true, because I think our guns are pretty much immune to the EMP, but it is largely true.

We have now about 35,000 people in South Korea. We believe that with the technology we have that we are a match for the million-man North Korean Army, but if the North Koreans were to launch an EMP weapon, just fire straight up, if you will, and detonate a weapon above the atmosphere, our soldiers would, in effect, be no taller in terms of combat capability than the North Korean soldiers who probably are pretty EMP immune because they do not have very sophisticated equipment.

Terrorist information warfare includes using the technology of directed energy weapons or electromagnetic pulse. This is the Iranian Journal. Terrorists have attempted to acquire non-nuclear radio frequency weapons. This is a statement from the EMP Commission.

So you see that essentially all of our presently believed potential enemies are writing about EMP. It is not that they do not know about it, and my con-

cern is that most Americans do not know about it, which is why we are talking about it.

Why would they be interested in EMP? Again, this is from the commission. States or terrorists may well calculate that using a nuclear weapon for EMP test offers the greatest utility. We talk about asymmetric warfare. An EMP weapon is the ultimate asymmetric weapon. One little country with a Scud launcher and a crude nuclear weapon and a transsteamer from which they could launch it, and by the way, we cannot see with our satellites through the thinnest canvas. If the Scud launcher is on the deck and covered by a canvas, we could not distinguish it from baled hay or crates of bananas.

In fact, there is one interesting story on an EMP attack in our country, and this may be kind of a look at the future. It has our country attacked from the sea, and after the weapon is launched, the ship is sunk. So now even if you find the ships there are no fingerprints. The ship is gone.

Well, these are the reasons they may use it. EMP offers a bigger bang for the buck against U.S. military forces in a regional conflict or a means of damaging the U.S. homeland. There is no way that a nuclear weapon could be used to produce so much damage to our country as with an electromagnetic pulse detection by detonating it at high altitude.

If it took out all of Los Angeles or New York City, you would not have done anywhere near as much damage to our country as simply detonating it above the atmosphere and for using an EMP pulse which would shut down all of our communications and all of our power grids.

Mr. Speaker, think about a world, and it would not be quite this but nearly this, a world in which the only person you can talk to is the person next to you unless you happen to be a ham operator with a vacuum tube set, and then you could talk to another operator who had a vacuum tube set. By the way, the vacuum tubes are a million times less susceptible to EMPs than the microelectronics that we use now. And in this world, the only way pretty much you can go anywhere is to walk unless you happen to have a friend who has a car that has a coil and distributor, and that car probably will work.

The second bullet here is a very interesting one, for two reasons. The country that does this believes they are relatively immune to a massive retaliation with our nuclear weapons. Even if we knew who did it, are we justified in incinerating their grandmothers and their babies because they took out our computers? That is in effect, Mr. Speaker, all they would have done is take out our microelectronics. The consequences of that, of course, are devastating, but the second reason is that we probably would not know who did it.

I cannot imagine, except for Russia, any country that would launch a nuclear weapon from their soil. Our satellites are really good. We would certainly detect it. We would know where it came from, and we would retaliate. If they attack us, it is going to be from the sea. They cover three-fourths of the Earth's surface. They are very difficult to monitor. The north Atlantic shipping lanes are crowded with ships. It is essentially impossible to keep track of specific ships in that shipping lane.

EMP could, compared to a nuclear attack on the cities, kill many more Americans in the long run from indirect effects of collapsed infrastructure, power, communications, transportation, food and water.

I was given a prepublication copy of a novel which I hope comes out because I think Americans need to know what the potential is, and it was the story of a community in the hills of North Carolina after an EMP attack. It goes through the first year; and to give some emphasis to this statement, it could kill many more Americans. This is a novel, but they did a lot of research. They had reason to believe, I think, it was probably pretty close to the truth.

If you go to a country that has no communications and no power and will not have any communications or power and essentially no transportation because all of our transportation now except for these old cars and trucks are dependent on microelectronics, the story they told was that at the end of the first year 80 percent of the people in this North Carolina community were dead, most of them from lack of food.

The average city has 3 days' supply of food. If the trucks do not keep coming in over the superhighway, and by the way the serving of food on your plate tonight, the average serving traveled 1,500 miles to get there, to give you some idea of how vulnerable we are to transportation losses.

They were lucky, because the authors concluded in their book that probably 90 percent of our population would be dead by the end of the year, and in New York City with its millions of people, the novel at the end of the year had them with 25,000 people still alive.

These are unimaginable consequences. The effects could be just overwhelmingly devastating, and a little later I will give you some quotes from some very prominent Americans who understand, and you may be surprised of the source of these quotes when you see them.

Strategically and politically, an EMP attack can threaten entire regional or national infrastructures that are vital to U.S. military strengths and societal survival, challenge the integrity of allied regional coalitions, and pose an asymmetrical threat more dangerous to the high-tech West than to rogue states. Most of these rogue states have little microelectronics. If

we retaliate with EMP laydown, they would be a little discomfited compared to the effect on us.

The next chart is an interesting one and far too complex to go through in the few moments we have to look at it here. But they spent a lot of time looking at our national infrastructure and the interdependency of the various aspects of our infrastructure.

Their study and conclusions reminded me of the counsel of a very prominent American. This was a number of years ago, Harrison Scott Brown, from CalTech, a geophysicist who I think held a number of seminars called "The Next Hundred Years," and in those seminars, he looked at where the world might be and the various scenarios for the next hundred years.

One of the scenarios way back in the 1960s and 1950s that had been looked at was a nuclear war. He cautioned that recovery from a nuclear war would be very difficult, and what he said then is true in spades today. He noted that our very complex infrastructure was developed through an evolutionary process, through the exploitation of high-quality, readily-available raw materials, iron ore in the Midwest, which was so good that you could almost literally have a backyard smelter. There is still one of those little smelters, by the way, not working of course, just a tourist site now up near Thurmont, Maryland, not very many miles from here.

He cautioned that since our infrastructure was built with these high-quality, readily-available materials like coal that was exposed by erosion of the soil from the coal, oil that was very shallow and very abundant in Pennsylvania, that if our infrastructure collapsed, that we probably could not reestablish it without heavy industry, and heavy industry would have collapsed.

I thought just in the last day or two how appropriate his concerns were when I thought of this recent big, and it is big but it is not going to save the day, oil find in the Gulf of Mexico. How could you ever drill through 7,000 feet of water and I think about 30,000 feet of soil without the products of heavy industry? You could not, of course, and what this chart shows is that all of our infrastructure, like a house of cards, is interrelated. Any one is pulled out and the rest collapse. Of course, the one essential to everything is power. When that is gone, all is gone. Nothing works.

They spent a great deal of time, and you can get a copy of this report, and you can read the concerns that they have.

One of the few high altitude nuclear detonations, to confuse the EMP, one 300 miles will cover the whole country. Unprecedented cascading failure of our electronics-dependent infrastructure could result. I think, Mr. Speaker, we probably ought to change that verb. It would result.

Power energy transport, telecom and financial systems are particularly vul-

nerable and interdependent. EMP disruption of these sectors could cause large scale infrastructure failures for all aspects of the national life. Both civilian and military capabilities depend on these infrastructures without adequate protection, and today, we have essentially none, Mr. Speaker. Without adequate protection, recovery could be prolonged months to years.

Mr. Speaker, you cannot hold your breath for months or years. Now, all of this is from the EMP Commission set up by Public Law 106-398, title XIV. These are not my words. These are the words of the people from the EMP Commission.

The next chart, again directly from the commission, says that EMP is one of a small number of threats that may, and, boy, are they capable of understatement. These are scientists primarily, and scientists are not preachers or politicians. They are given to understatement. EMP is one of a small number of threats that may hold at risk the continued existence of today's U.S. civil society. That is the way of saying, Mr. Speaker, that EMP could end our civil society. When they say "hold at risk the continued existence," that means discontinue the society, disrupt our military forces and disrupt our ability to project military power.

Far too many of our weapons systems are not hardened. At a series of hearings over the last several years, I have frequently asked, after a robust EMP laydown, how much of our war fighting capability remains? And the short answer is, usually not much.

□ 1800

Now, that is about to change, because I now understand that a memo is circulating in the Pentagon asking all of our departments there to make an assessment of their EMP vulnerabilities. Hopefully, that will result in a program to correct this deficiency.

The number of U.S. adversaries capable of EMP attack is greater than in the Cold War. Then there was one. Today, who knows how many there are. Any country that has a crude nuclear weapon that they might make or buy, a Scud launcher and a transsteamer they can put it on is capable; not of blanketing our whole country, but taking out the whole northeast and Mid-Atlantic area would be devastating. This would be orders of magnitude greater than Katrina, and we still really haven't recovered from that one.

Potential adversaries are aware of the EMP strategic attack option. I read earlier a number of quotes from the commission, from journals in these foreign countries noting that they really know about it, the threat not adequately addressed in U.S. national and homeland security programs. I said, Mr. Speaker, they were capable of gross understatement. We are paying essentially no attention to it.

You know, my house is probably not going to burn down, but I wouldn't sleep well tonight, I wouldn't sleep tonight if I knew that I didn't have fire

insurance on my home. I would want to call the agent and get a binder. Now, what are the odds that my house is going to burn tonight? Very small. I would submit, Mr. Speaker, that in the reality of today's world, there is a bigger probability that there will be an EMP laydown than that any one house or building will burn. Now, if you are uncomfortable being unprotected by fire insurance, you really ought to be uncomfortable being unprotected from EMP.

The next chart shows the conclusions of the EMP Commission. The EMP threat is one of a few potentially catastrophic threats to the United States. As a matter of fact, there is almost no other single event that you can name, except the impact of a large meteor from space perhaps, that you could note that would have the devastating effects of an EMP laydown. By taking action, the EMP threat can be reduced to manageable levels. And they have a large number of pages and a lot of recommendations.

We just recently extended the life of the EMP Commission for 18 months after their first meeting, and their first meeting was just a few weeks ago. So the EMP Commission, unlike most commissions doing this kind of work, they produce a paper, and then the report just collects dusts, and they go away. But this one is not going away, and I hope we can keep it in existence for a long time.

The EMP Commission needs to be there watching our response to make sure that we are doing the right thing. They now have an extension of life of about 18 months. They are a few weeks into that, so they are going around educating people, sectors of government, private sector and so forth.

By taking action, this EMP threat could be reduced. It could be reduced to manageable levels. If you are building a device, and EMP hardened, it may increase the cost of the device only 5 or 10 percent, maybe even less. If you wait until after the device is built, it may cost you as much to harden the device as it did to build it. If you are building in the hardening, it is not all that expensive or not all that difficult.

The strategy to address the EMP threat should balance prevention, and that is telling other people you do this, you are going to pay for it; preparation, protection and recovery. We need to be looking at all of these.

A fascinating study is, what would you do if this happened? What resources do you have available? How would you mobilize those resources? What would you do to provide the most good for the most people with the resources you have available? These are fascinating studies, and essentially nobody is looking at them.

Critical military capabilities must be survivable; and they are not today, I hope we are moving to address that; and endurable to underwrite U.S. strategy.

The next chart shows a continuation of their conclusions, and this reflects

that, in the 2006 Defense Authorization, we extended it for 18 months.

Terrorists are looking for vulnerabilities to attack, and our civilian infrastructure is particularly susceptible to this kind of an attack.

Vulnerability invites attack. I really am a pacifist. I don't like war. That is why I am a big, big supporter of our military, because I really subscribe to the philosophy that the most certain path to peace is to prepare for war. If you are really prepared for war, you are probably not going to have a war. We are not prepared for this kind of an eventuality, and our very unpreparedness invites this kind of an asymmetric attack.

The Department of Homeland Security needs to identify critical infrastructure. And what do we do to protect it? And what do we do to recover? And it notes here that the power grid is a particularly vulnerable and essential one. Without power, you have essentially nothing. Everything goes down without power.

The Department of Homeland Security also needs to develop a plan to help citizens deal with such an attack should it occur. What do you do as a family to prepare? What do you do as a community to prepare? What do you do when it happens? Citizens need to become as self-sufficient as possible.

I am not telling you this; I am reading this from the report. If you are not as self-sufficient as possible, then you become a liability. You are no longer an asset to your country. You become a liability. So it should be the goal of every American to be as self-sufficient as possible, because then you become an asset and not a liability.

The next quote is a really interesting one, and I mentioned some really prominent Americans are concerned about this, and so this is from the Washington Post, "One Way We Could Lose the War on Terror" by U.S. Senator JON KYL from Arizona. "Last week, the Senate Judiciary Committee's Subcommittee on Terrorism, Technology and Homeland Security, which I chair," he says, "held a hearing on a major threat to the United States not only from terrorists but from rogue nations like North Korea. An electromagnetic pulse, an EMP attack, is one of only a few ways America could be essentially defeated by our enemies, terrorists or otherwise. Few, if any, people would die right away, but the long-term loss of electricity would essentially bring our society to a halt. Few could conceive of a possibility that terrorists could bring American society to its knees by knocking out our power supply from several miles in the atmosphere, but this time, we've been warned, and we better be prepared to respond."

Thank you, Senator KYL. Thank you for your recognition that this is a problem. Thank you for your counsel that we ought to be doing something about it. But, you know, I still don't see us doing much about it.

Another article that appeared in the public, "The Impact of EMP is Asymmetric." This is by Major Franz Gayl. "The impact of EMP is asymmetric in relation to our adversaries. The less developed societies of North Korea, Iran and other potential EMP attack perpetrators are less electromagnetically dependent and less specialized and are more capable of continued functionality in the absence of modern conveniences."

If you don't have modern conveniences, you are not going to miss modern conveniences.

"Conversely, the United States would be subject to widespread paralysis and doubtful recovery," he says. That really is true, doubtful recovery, "following a surprise EMP attack. Therefore, terrorists and their coincidentally allied state sponsors may determine that, given just a few nuclear weapons and delivery vehicles, the subjection of the United States to a potentially non-attributable," from the sea, from above, "nonattributable EMP attack is more desirable than the destruction of selected cities." I would think so.

"Delayed mass lethality is assured over time through the cascade of EMPs indirect effects that would bring our highly specialized and urbanized society to a disorderly halt." That is a very euphemistic way, Mr. Speaker, of saying that most of us would die.

The next chart shows the capability, which we exercised and have now mothballed, where we could put a whole airplane and zap the airplane. Now, this is not quite a realistic simulation of an EMP attack, but it is the best we could do, because there are no long line effects here. You just can't simulate miles of wire and railroad tracks. But we used to have these facilities, and we have now mothballed them. We used to test our airplanes. And some of our most important airplanes are hardened. Indeed, those which are hardened are, obviously, classified. But it is not that we would not have an ability to respond. We would. But to whom? Who did it? And what would be our response?

Mr. Speaker, we have spent several minutes now talking about a threat which I suspect few listeners had any idea existed. I hope that quoting this report and high profile people like JON KYL has convinced the listener that this is not just science fiction, that this is a real possibility indeed.

If there is going to be a conflict, Mr. Speaker, with these powers, I think it is more than a possibility, I think it is a probability that any of these small adversaries that have a nuclear weapon could devastate us more with an EMP laydown than with any other use of that weapon. And the reason I am here in this time that we are talking about national security, Mr. Speaker, is because I believe that, although there are more urgent concerns about national security, like an open border through which 11, 12, 20, who knows how many million illegal immigrants could come,

there could just as well have been that many terrorists. By the way, there is an old adage that talks about the tyranny of the urgent.

Iraq and what we are doing there is really urgent. Every day it is on the President's plate. The border and the outrage of American citizens that we haven't been able to close that border is really urgent. And it is just a truism for families, for businesses, for countries, the tyranny of the urgent. The urgent always sweeps the important off the table. And one of the really important things that we need to be about is preparing for the eventuality of an EMP laydown.

My last chart is a kind of a colorful one. This is a satellite photograph of the Ural Mountains, and it is labeled the Yamantau region in Russia. And this facility is ordinarily spoken of as Yamantau Mountain because it is in a mountain, and you can see from the figure down in the lower right there, it is about 600 miles almost due east of Moscow in the Ural Mountains.

Beginning with Brezhnev, in about 1980, the Soviets, and now the Russians, have a closed city there. In our liaison with the Russian Duma, we have become fairly friendly with a number of those Duma members, our counterparts there, and we asked them about closed cities. And they say, oh, yes, we have closed cities. When you draw a map of the region, the city is not even on the map. It is closed. People don't go there unless they are needed to work there, and they do not leave there unless they are no longer needed there.

Mezhgorye is the closed city. It happens to be in two little pockets in the mountains, because one valley wasn't big enough to house it, but there were at one time 60,000 people that we could estimate from our satellite living there. That would be about 20,000 workers that were working on Yamantau Mountain.

Yamantau Mountain is the largest nuclear secure facility in the world. We have had two defectors from that Yamantau Mountain. They each have told us what they know.

□ 1815

What we know from what they told us is that it is enormously large, as large as inside our beltway; it has train tracks running in two directions, so they intend to move a lot of material; and it has enormous rooms carved out of soft rock beneath hard rock. It is an ideal geologic formation for producing this kind of a facility.

The number of people at Mezhgorye, since they are finished digging, has now shrunk to about 15,000, as our satellites indicate, which means there are about 5,000 working at Yamantau Mountain.

What are they doing there? By the way, this is so secret in Russia that the cost of this, which has to be enormous, does not show in the financial lines of any of the ministries. It is the equiva-

lent of our black programs, for those of you who are familiar with black programs.

To give you some idea how important this is to the Russians, continuing work on Yamantau Mountain is more important than paying their military officers, because they have continued work there when they couldn't pay their military officers. It is more important to them than the \$200 million for the service module on the International Space Station. That was embarrassing to them when they couldn't fund that and we had to fund the service module, which was their responsibility, on the International Space Station.

Now, there is no conceivable use of Yamantau Mountain except during or after a nuclear war. This kind of gives you a little opportunity to get into the heads of the Russian leaders. From their writings and from their actions, it is quite justified to draw the conclusion that they believe that nuclear war is inevitable and winnable.

Now, I have no idea, and I have had a number of classified briefings, I have no idea what they plan to do in Yamantau Mountain. But one thing is certain, it has no use except during or after a nuclear war.

I wanted to end with this, Mr. Speaker, to bring the message that nuclear war is not unthinkable and therefore it will not happen, because apparently the Russians do not believe that it is unthinkable.

By the way, they span 11 time zones. Their enormous country goes almost halfway around the world. They have less than half the people that we have and a geography that size, I think only six cities of more than 1 million people. And if wealth is determined by natural resources and raw materials, Russia is the wealthiest country on the globe. They have everything their heart could desire, except a rational government, their heart could desire for a robust economic system. They could close the door and with their resources live happily ever after.

Almost nobody else can do that. We cannot do that. We import about two-thirds of our oil, we have no diamonds, nickel, chromium, tungsten. You would not have these lights in the ceiling without importing things.

So I just wanted to end, Mr. Speaker, with this chart which shows that our potential enemies believe that there could be a nuclear war and they are preparing for it by spending money on Yamantau Mountain, scarce money.

They were doing this, by the way, when money was scarce. It is not scarce now. They are awash in cash because oil is \$65, \$70, \$75 a barrel. But they were spending money on this before they were flush with money.

So my hope is, and I believe we should have time, that the American people in our society and in our military can plan, adapt, design, build, so that we will be immune.

We are much more likely to have this attack if we are vulnerable to the at-

tack, and at the moment we are explicitly vulnerable. We don't need to be that way. The creativity and ingenuity of the American people can make us essentially immune to this, Mr. Speaker, and we need to be about it.

#### BIG-GOVERNMENT SOLUTIONS DON'T WORK

The SPEAKER pro tempore. Under the Speaker's announced policy of January 4, 2005, the gentleman from Texas (Mr. PAUL) is recognized for 60 minutes.

Mr. PAUL. Mr. Speaker, politicians throughout history have tried to solve every problem conceivable to man, always failing to recognize that many of the problems we face result from previous so-called political solutions.

Government cannot be the answer to every human ill. Continuing to view more government as the solution to problems will only make matters worse.

Not long ago, I spoke on this floor about why I believe Americans are so angry in spite of rosy government economic reports. The majority of Americans are angry, disgusted, and frustrated that so little is being done in Congress to solve their problems. The fact is, a majority of American citizens expect the Federal Government to provide for every need without considering whether government causes many economic problems in the first place. This certainly is an incentive for politicians to embrace the role of omnipotent problem-solvers, since nobody asked first whether they, the politicians themselves, are at fault.

At home, I am frequently asked about my frustration with Congress since so many reform proposals go unheeded. I jokingly reply, No, I am never frustrated because I have such low expectations. But the American people have higher expectations, and without forthcoming solutions are beyond frustrated with their government.

If solutions to American problems won't be found in the frequent clamor for more government, it still is up to Congress to explain how our problems developed and how solutions can be found in an atmosphere of liberty, private property, and a free market order.

It is up to us to demand radical change from our failed policy of foreign military interventionism. Robotic responses to cliches of Big Government intervention in our lives are unbecoming to Members who are elected to offer ideas and solutions. We must challenge the status quo of our economic and political system.

Many things have contributed to the mess we are in. Bureaucratic management can never compete with the free market in solving problems.

Central economic planning doesn't work. Just look at the failed systems of the 20th century. Welfarism is an example of central economic planning. Paper money, money created out of thin air to accommodate welfarism and government deficits, is not only silly;