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an equipment company to serve in Iraq, and it took her a year to find a job she was happy with as an editor at The Sheridan Press in Hanover, Pa. “You send out a lot of resumes. You try to do everything you can do, but it’s really hard to account for the time you are in Iraq, and really to make sure that the things you were doing in Iraq relevant to what an employer is looking for today,” Angell said. Sgt. Benjamin Lewis, 36, who also lost a stepson to the War in Iraq, was a civilian chef who worked at a restaurant in Ann Arbor, Mich., that burned down while he was deployed in Iraq with the Michigan National Guard, said some employers directly told him they could not hire him because he could be deployed again and needed weekends and time off in the summer for drilling. Others, he said, asked if he struggled mentally because of his time at war. He got so desperate he considered reenlisting to get health care for his wounds; to care for him who shall have borne arms; to see the right, let us strive on to finish the work we are in; to bind up the nation’s wounds; to care for him who shall have borne the battle, and for his widow, and his orphan.

do to all which may achieve and cherish a just, and lasting peace, among ourselves and with all nations.” Before I conclude I would like to take time to read some of the names of the soldiers from Houston who have given their lives in Iraq and honor them with a moment of silence.

Spc. Adolfo C. Carballo, 20, Houston, Texas
Died: April 10, 2004, Baghdad, Iraq
Pfc. Analaura Esparza Gutierrez, 21, Houston, Texas
Died: October 1, 2003, Tikrit, Iraq
Spc. John P. Johnson, 24, Houston, Texas
Died: October 22, 2003, Baghdad, Iraq
Spc. Scott T. McQueen, 22, Houston, Texas
Died: April 5, 2004, Baghdad, Iraq
Sgt. Keelan L. Moss, 23, Houston, Texas
Died: November 2, 2003, Al Fallujah, Iraq
Pfc. Armando Soriano, 20, Houston, Texas
Died: February 1, 2004, Haditha, Iraq
Capt. Thomas Soleto Jr., 20, Houston, Texas
Died: June 27, 2003, Baghdad, Iraq
Staff Sgt. Brian T. Craig, 27, Houston, Texas
Died: April 15, 2002, Afghanistan
Capt. Eric L. Allton, 34, Houston, Texas
Seventeenth of September
Capt. Andrew R. Houghton, 25, Houston, Texas
Died: August 9, 2004, Ad Dhua, Iraq
Lance Cpl. Thomas J. Zapp, 20, Houston, Texas
November 8, 2004, Al Anbar Province, Iraq,
Cpl. Zachary A. Kolda, 23, Houston, Texas
December 1, 2004, Al Anbar Province, Iraq
Staff Sgt. Dexter S. Kimble, 30, Houston, Texas
Died: January 26, 2005, Ar Rutba, Iraq
Pfc. Jesus A. Leon-Perez, 20, Houston, Texas
Died: January 24, 2005, Mohammed Sacran, Iraq.
(Moment of Silence.)
Ms. WATSON. Mr. Speaker, we have spent over $200 billion so far on the war in Iraq. According to the Congressional Budget Office, by 2010, our expenses might be as much as $500 billion.
The two hundred billion dollars we have spent so far would be enough money to provide health care for the 45 million Americans without health insurance.

That two hundred billion dollars would permit us to hire three and a half million elementary school teachers. That two hundred billion dollars for the war in Iraq is going on America’s credit card and that goes right to the deficit—a debt to be paid by our children and grandchildren.

All this might be worth it if we had something to show for it. I think two hundred billion dollars for peace and democracy is a bargain. But we haven’t gotten peace and democracy. That two hundred billion has bought us: over seventeen hundred dead Americans; an unknowable number of Iraqi civilian deaths; a disillusioned military; a Dwight Eisenhower said: “We must not let the promise of peace lull us into the same kind of complacency that over 70 years ago made America complacent in the face of the Adolf Hitler’s Germany.” If there is one thing you have to do, it is to tell the American people what is happening and what you are in the military, that you have brought to the war.

The SPEAKER pro tempore (Mr. BARTLETT). Mr. Speaker, what I want to spend a few moments talking about this evening is something that will be new to most Americans. They will not have heard about this subject. Indeed, nobody knew about this until 1962; that is, no one in this country knew about it.

There was an experiment over Johnstown Island out in the Pacific Ocean in November of 1962 called Operation Starfish. It was part of a series of nuclear tests that were called the Fishbowl Series. This was a unique one. The others had all been at ground level or some little distance above the ground. This one was an extra-atmospheric, a detonation above the atmosphere.

Nobody knew what was going to happen. It was the first time we had detonated a nuclear weapon in a test series above the atmosphere, and there were a number of ships and airplanes and radar, theater-like, that were tracking the missile that launched this nuclear bomb and noted its explosion. The explosion occurred about 400 kilometers
above Johnston Island. That is well above the atmosphere.

Now, the Soviets have had very extensive experience with this kind of testing. This was our first and, indeed, our only experience with this. So our knowledge of this phenomenon comes from this single test, what we have learned from the Soviets and now the Russians and the number of simulations that we have done since that time.

There were no diagnostics to test the effects on Hawaii, which was about 800 miles away, because nobody expected there to be any effect there. Many of the instruments we were using for testing around Johnston Island were pegged; that is, they did not have enough capacity to register the effects that were produced by this extra-atmospheric explosion.

What happened in Hawaii may be open to some controversy, but there were some lights that went out. This was odd. We thought those lights went out it was not all of the electronics that we have today. A number of lights went out, and in the last couple of years, some of the evidence of what happened to that equipment was shown to a commission that I will talk about the Russians that they really were not needed to help resolve this conflict, that we were big boys and we would handle this on our own. It soon became obvious to the Clinton administration that the real confidence of the world that had the real confidence of the Serbs was Russia, and they were added to the G-7 to make the G-8, which 5 days after we came back resolved the Kosovo conflict with the framework agreement that we had developed there.

The statement that Vladimir Lukin made was a startling statement. The chairman of our delegation was the gentleman from Pennsylvania (Mr. WELDON) who had been to Russia thirty-something years ago, the Russian and understands more. When Vladimir Lukin was speaking, he turned to me and said, Did you hear what he said? Yes, I heard what he said, but of course, I did not understand it; I just heard Russian words.

When it was translated, this was what he said, and by the way, he did not need a translator; Vladimir Lukin speaks very good English, but when you are talking with these folks, they often speak so that gives them twice as long to formulate their answer. So if you do not know both languages, you are at somewhat of a disadvantage in dialogue with them because they have twice as long to formulate an answer.

This was what surprised the gentleman from Pennsylvania (Mr. WELDON), and this is what he said: If we really wanted to worry you, with no fear of retaliation, we would launch an SLBM. That’s a submarine-launched ballistic missile. We would launch an SLBM. We would detonate a nuclear weapon high above your country, and we would shut down your power grid for 6 months or so.

Now, he made the observation that without fear of retaliation, because you would not know where it came from, particularly today. Factor in the Cold War with only two superpowers, we absolutely would have known where it came from, but today, would you know many countries out there who can get a tramp steamer and a Scud launcher and a crude nuclear weapon and that is all it would take to produce an EMP attack because a Scud launcher goes about 180 miles above that is plenty high. It would not cover all of the United States, of course.

The third ranking Communist was there, a handsome, tall, blond fellow by the name of Alexander Shurbanov, and he smiled and said, if one weapon would not do it, we have some spares. I think at that time it was something like 7,000 spares that they had.

This was a very startling remark, and it is said with the detonation of a single, large, appropriately designed nuclear weapon above our country could shut down our power grid and shut down our communications, he said, for 6 months or so. If that were true, and there is increasing evidence, as I will indicate, from the report that this commission gave us that it is true, that would mean that you would be in a world, Mr. Speaker, where the only person you could talk to is the person unless you happened to have a vacuum tube handset, then you could talk because they are about a million times less susceptible to EMP than our current microelectronic systems, and the only way you could go anywhere was to walk.

Several years ago, we had a field hearing at Johns Hopkins University applied physics lab, and a Dr. Lowell Wood was there, I met Dr. Lowell Wood through Tom Clancy, who lives on the eastern shore of Maryland and I know him. He has come to do several political events for me. I knew that he had done a book where EMP was a part of the scenario, and I knew he did very good research and he could tell me something about EMP. This was several years ago.

I called Tom Clancy and I asked him, and he said, gee, if you read my book you now all about EMP that I know, but he said let me refer you to the smartest man hired by the U.S. government. He referred me to a Dr. Lowell Wood from Lawrence Livermore Laboratory in California. We got his pager and within an hour, he was sitting in my office.

Dr. Lowell Wood at this field hearing out at the applied physics lab in
Howard County made the observation that an EMP lay down would be the equivalent of a giant continental time machine that would move us back a century in technology. What this would mean, of course, is that we would have no more capability for moving our means of communication from one another, for plowing our fields, for moving our equipment and our food around than we had 100 years ago.

I said that, Dr. Wood, the population we have today, 265 million people and its dependence on electricity, if you were rehearsing an EMP attack.

The population will shrink until it can be supported by the technology. The point I am trying to make is that this could be a devastating asymmetric weapon. It may not be known to most Americans. I suspect not one in 100 have heard of nuclear electromagnetic pulse, but I can assure Members that all of our potential enemies know a great deal about EMP.

This chart shows the effects of a single nuclear weapon. This one is detonated in the northwest corner of Iowa, and it blankets all of the United States.

The colors here indicate the intensity of the pulse you get from that. The purple as you can see from the scale is 50 percent. So what this says is whatever the intensity was at ground zero, and we are several hundred miles above that, but the intensity at that level which is the red here in the center, will be half that out at the margins of our country.

This little smile here and the distortion here is due to the magnetic field of the Earth that bends the electrons that I will describe in just a moment. What is this electromagnetic pulse? It is produced from strong gamma rays from the nuclear explosion which produce electrons that move at the speed of light. They move now to everything within line of sight. If you are about 3 or 400 miles high over the center of the country, Iowa or Nebraska, that will blanket all of the United States.

If the voltage is high enough, it will disrupt or fry these microelectronics. It may not be known to most of the inside of your computer, you need to be very careful that the static electricity that you produce just by rubbing your clothes together will not damage it. You need to put a little wrist band on and ground yourself. At factories where most of these computers are made, and it is almost all women that I have seen here, this is one area where women do it better than men, and they are grounded to the floor. They have a metal anklet on, and they are grounded to the floor. They are static from just their movement could damage these very sensitive, very tiny microelectronics.

A little later I will show a chart that says the interview with some Russian generals have indicated that they have weapons that can produce 200 kilovolts per meter. They told us, and I cannot tell Members the exact voltage to which we have hardened, but I can say that we believe that this signal was several times higher than the voltage to which we had hardened. And even out at the periphery with 50 percent degradation, it was higher than we had hardened. By that, I mean that about some of the buffers in there that would intercept this pulse, like the surge protectors that we have for our computers which we have for lighting which will do no good for EMP because this pulse has such a rapid rise time measured in nanoseconds.

This pulse will be through the surge protector before the protector sees it. If you are 200 kilovolts at ground zero, it is 100 out at the periphery, and that is probably enough to weld, to fry all of our microelectronics, which is why Vladimir Lukin said they would detonate a nuclear weapon high above our country, shut down our power grid and our communications for 6 months or so.

From chart 2, I want to give some quotes from potential enemies to indicate that I am not letting the genie out of the bottle this evening. They know all about it. Not one in 50 Americans knows about EMP, and I want to assure Members our potential enemies know all about EMP.

This first quote is the quote that I heard myself sitting in that hotel room in Vienna, Austria when Vladimir Lukin said they could shut down our power grid and our communications. That was May 2, 1999. There were 10 other Congressmen there and several staff members.

Chinese military writings describe EMP as key to victory and describe scenarios where EMP is used against U.S. aircraft carriers in a conflict over Taiwan. It is not like our potential enemies not only know about it. And they know that we know about it, so they feel free to put it in their public writings.

A survey of worldwide military and scientific literature sponsored by the EMP commission was set up, and they functioned for 2 years. They submitted a report showing continuously briefing additional entities, different organizations and people. They found widespread knowledge about EMP and its potential military utility, including in Taiwan, Israel, Egypt, India, Pakistan, Iran, and North Korea. Iran has tested launching a solid missile from a surface vessel, a launch mode that could support a national or transnational terrorist EMP attack against the United States.

By the way, we thought that launch was a failure because the device was detonated before it reached land. Now, that is exactly what you would do if you were rehearsing an EMP attack.

By the way, there is no way that a nuclear weapon could do anywhere near as much damage against a sophisticated country like ours by dropping it on one of our cities as you could do to our country by detonating it at altitude. And you would not know it happened, and certainly not to the United States. We are totally immune to EMP. It will not hurt us or damage buildings. All it does is to knock out all of our microelectronics, which means all of our computers. For instance, your car computer, if you have a new car, they cannot even work on it in a shop without hooking it up to a computer to tell what is wrong with the vehicle. So an EMP with a high enough pulse would fry the computers in the car. They would not run. If you happen to have an old car with a coil and a distributor, that is probably going to work. That is probably less susceptible to EMP.

If the world’s industrial countries fail to devise effective ways to defend themselves against dangerous electromagnetic assaults, they will disintegrate within a few years. 150,000 computers belong to the U.S. Army. If the enemy found success in interdicting the information network of the U.S. Army, then the whole organization would collapse. The American soldiers could not find food to eat nor would they be able to fire a single shot. This is from Iranian Journal of March 2000.

Some people might think that things similar to a Pearl Harbor incident are unlikely to take place during the Information Age. And this is a writing from China. Yet it could be regarded as a Pearl Harbor incident of the 21st century, if a surprise attack is conducted against the enemy’s crucial information systems of command, control, and communication by such means as EMP weapons. Even a superpower, China says, like the United States, which possesses nuclear missiles and powerful armed forces, cannot guarantee its information security like the United States is extremely vulnerable to electronic attacks. This is May 14, 1996 from a Chinese Journal.

A terrorist information warfare includes using the technology directed energy weapons or electromagnetic pulse. This is from Iranian Journal of March 2000.

Terrorists have attempted to acquire non-nuclear radio frequency weapons. These are the weapons that would produce the directed energy effect. These produce a similar kind of pulse to EMP but does not have the broad spectrum of frequency involved. But if intense enough, if set up in this room, for instance, it could fry the computers in the cloak room which is not that far away. If it was set up in a van and went down Wall Street, if it were a really sophisticated device, it could take out all of the computers there, which would shut down our trading for quite a while if they were all taken down.

Some people might think that things similar to a Pearl Harbor incident are unlikely to take place during the Information Age. And this is a writing from China. Yet it could be regarded as a Pearl Harbor incident of the 21st century, if a surprise attack is conducted against the enemy’s crucial information systems of command, control, and communication by such means as EMP weapons. Even a superpower, China says, like the United States, which possesses nuclear missiles and powerful armed forces, cannot guarantee its information security like the United States is extremely vulnerable to electronic attacks. This is May 14, 1996 from a Chinese Journal.
Iran has conducted tests with Shahab-3 missiles which have been described as failures. I mention that because they detonated it before it reached the ground. That is exactly what they would do if they were planning for an EMP attack. Iran Shahab-3 is a mobile missile that could be driven onto a freighter and transported to a point near the United States for an EMP attack.

By the way, an EMP laydown is always an early event in Chinese and Russian war games because it is the most asymmetric attack that they could lodge against our country.

Just a little bit of a time line here. Operation Starfish occurred in 1962. In 1995, there was a very interesting event that nearly started World War III. It has been written up in several books now. Most people never knew about it, but the Norwegians launched an atmospheric test rocket. They are fairly close to Russia, and they told the Russians that they were launching this rocket; but in the bureaucracy of Russia, that did not get communicated to the right people and when they launched it, it was interpreted as a first salvo from the United States. You do not have very long to respond if your enemy is about a half hour away in terms of these ballistic missiles. The Russians came very near to launching a major salvo of missiles with nuclear warheads on them against our country. This was a very narrow brush with destiny that tells us how important it is that we understand the potential of these weapons and how they could be misunderstood by an enemy.

In 1997, I sat in a hearing here on Capitol Hill and General Marsh was there. He was the general in charge of the President’s Commission on Critical Infrastructure. He was looking at the critical infrastructure of our country and its vulnerability to enemy attack. I asked him if he had looked at EMP. He said, yes, he did. Well? Well, the commission thought there was not a high probability, event, that is just the kind of event that you purchase insurance to protect you from. It is unlikely to happen; but if it happened, it would be so devastating you would need insurance to cover that.

Mr. Speaker, what we need is the equivalent in our country of the insurance policy that you bought on your home because there is not a very high probability that your home will burn. When you have an event like a potential fire in your home or an EMP attack, which is a very high-impact, but low-probability, event, that is just the kind of event that you purchase insurance to protect you from. It is unlikely to happen; but if it happened, it would be so devastating you would need insurance to cover that.

In 2001, we had some very interesting tests at Aberdeen with a directed energy weapon that was put together. This was really interesting, because we asked these engineers to put together the kind of a weapon that terrorists might put together if they were buying equipment out from Radio Shack. So they went to places like Radio Shack and they bought the equipment and they put it together in this van that could go down the street and it was kind of camouflaged so it was not sure they had an unprotected hardware energy weapon had the ability to take out microelectronic equipment at considerable distance from it.

In 2001 because of my concerns about the potential for EMP, I had put in the authorization that year legislation that set up a commission to look at this eventuality. The next chart shows the commissioners that were on this. These are all very well known people. The first person on the list there is Dr. Johnny Foster who is the father of most of our modern nuclear weapons. He is the Edward Teller of today. Another one of our commission members, Dr. Lowell Wood that I have mentioned already inherited the mantle of Edward Teller. There were several other people. They had nine people altogether. Dr. Bill Graham who chaired it was the deputy chair of the emerging ballistic missile threat that was chaired by Donald Rumsfeld before he was the Secretary of Defense. Dr. Bill Graham has been the presidential science adviser. He has held a lot of very high posts. He is really very well known. Commissioner Richard Lawson was a USAF general, served on the Joint Chiefs of Staff and was Deputy Commander in Chief of the U.S.-European Command. The last member listed here, Dr. Joan Woodard, I had a very interesting experience with her. I remember the names of all the commission members and they had just been set up a little while and I went out to Albuquerque, New Mexico, to visit my son who works there in the laboratory. He brought home from the lab a little internal report that they were passing around that indicated to me that they might have some expertise at the lab there that would be useful in the work of the commission. And so I asked to have a briefing. Dr. Joan Woodard was one of the commissioners and she had been working for several months and had a number of her staff working with her and I had a 5-hour classified briefing on the potential effects of EMP not just on our military because they were spending most of their time on our national infrastructure. So we had this body of real experts that was working for 2 years. Ordinarily a commission works for 1 year. This one worked for 2 years. I think it is very obvious that if we are at war against a peer, and there will be a peer, a resurgent Russia or a China of the future and the first thing they are going to do, they say so in their writings, they say so in their war games, the first thing they are going to do they are going to disrupt our communications for 6 months or so. If the only person you could talk to is the person next to you and the only way you could go anywhere was to walk, I think it is very obvious that that would end life as we know it in this country. Hold at risk, they say, the continued existence of today’s U.S. civil society. Also, it has the power to disrupt our military forces and our ability to project military power. That is because, Mr. Speaker, for the last decade, more than the last decade, we have been waiving EMP hardening on almost all of our weapons systems. You see, when we had so little money to buy weapons, particularly during the Clinton years when they called it a build-down, I called it a teardown of the military, we could get a few more percent weapons systems that cost somewhere between 1 percent and 10 percent. You could get 1 percent to 10 percent more weapons systems if you did not harden, and so they just ran a calculated risk that we would not need the hardening. But, Mr. Speaker, the time when we are really going to need these weapons is when we are at war against a peer, and there will be a peer, a resurgent Russia or a China of the future and the first thing they are going to do, they say so in their writings, they say so in their war games, the first thing they are going to do in their first EMP attack, they say so. They deny us the use of all of our military equipment which is not hardened. I am not sure why we are building it, we do deny us the use of all of our military equipment which is not hardened. I am not sure why we are building it, we do
not need it, to defeat countries like Iraq. We will really need it to defeat a peer and if it is not hardened, then it will not be available to us.

The number of U.S. adversaries capable of EMP attack is greater than during the Cold War. Yes, that is true. There was one then, the Soviet Union. Now there are a whole bunch. Let us try Iran if it gets a weapon, North Korea, India, Pakistan, a number of countries that are today our friends, England and France and Israel and the list goes on.

Quotes again from the commission, not my quotes. Potential adversaries are aware of the EMP’s strategic attack option, obviously from what Vladimir Lukin said and you can glean that from their writings. The threat is not adequately addressed in U.S. national and homeland security programs, and that is a gross understatement. It is not only not adequately addressed, it is hardly addressed at all.

This is again quotes from the EMP commission and we have redacted some names here. I am not sure the Russian generals would want the world to know who they were, but these are the two Russian generals that I mentioned that Russia has designed a super EMP nuclear weapon capable of generating 200 kilovolts per meter. I cannot tell you what we hardened to, but I can tell you that the Russian generals believe that this is several times the level to which we have hardened. Chinese, Russian, Pakistani scientists are working in North Korea and could enable that country to develop an EMP weapon in the near future. This is not my statement, Mr. Speaker. This is a direct quote from the EMP commission.

The next chart shows additional quotes from the EMP commission. States or terrorists may well calculate that using a nuclear weapon for EMP attack offers the greatest utility. Indeed, if they had a single weapon, taking out Los Angeles, San Francisco, New York, Philadelphia, Washington would have nowhere near the effect on our society as simply taking out all of our computers.

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. Again, these are not my words. These are quotes from the commission.

This is a really interesting one. EMP may be less provocative of U.S. massive retaliation compared to a nuclear attack on a U.S. city that inflicts many prompt casualties. Even, Mr. Speaker, if we know where it came from, if all they have done is take out our computers, are we justified in incinerating their grandmothers and their babies? Maybe we should respond in kind and take out all the computers in North Korea. I doubt that very few people would agree with us, we took out all their computers. This, Mr. Speaker, is really a very asymmetric attack because if we responded in kind, there are none of our enemies that are anywhere near as vulnerable as we are and some of them could hardly care less if we took out their computers and the few that the military has could easily be hardened if they were anticipating that they might need them hardened.

Strategically and politically, an EMP attack can threaten entire regional or national infrastructures that are vital to U.S. military strength and societal survival, challenge the integrity of allied regional governments, and pose an asymmetrical threat more dangerous to the high-tech West than to rogue states. Indeed, if we responded in kind, it would really be an asymmetric attack, because they would be little affected by taking out their computers since they little depend on their computers.

Technically and operationally, EMP attacks can compensate for deficiencies in missile accuracy, fusing, range, reentry. Suppose Russia has really lousy in the kind of missiles they have, their aim is very poor. If they missed the target by 100 miles, Mr. Speaker, it really does not matter. One hundred miles is as pretty much as good as a direct hit, and a direct hit on New York, Philadelphia, Washington will not make that much difference in the very large areas that are covered by this EMP attack.

Terrorists could steal, purchase or be provided a nuclear weapon for an EMP attack against the United States simply by launching a primitive Scud missile off a freighter near our shores. We would have, Mr. Speaker, 3 or 4 minutes’ notice. Scud missiles can be purchased on the world market today for less than $100,000. Al Qaeda is estimated to own about 80 freighters. So what they need is $100,000 to buy a Scud missile and a crude nuclear weapon on that who knows where they might get that. Maybe some Russian scientist who was really working on that who knows where they might get that.

Certain types of low-yield weapons can generate potentially catastrophic EMP effects. These are the enhanced EMP weapons that the Soviets, the Russians, have developed. Mr. Speaker, we have every reason to believe that these secrets are now held by China. There is no reason to entertain the thought that they do not have these secrets. And if China has them, who else has them? I think the safest thing to assume is that any potential enemy has them.

The last chart from the commission shows a very interesting little schematic on the right which shows the interrelationships of our very complex infrastructure. This was commented on a number of years ago by a scientist at Cal Tech who held a series of seminars called The Next 100 Years. He was theorizing, could we indeed recover from something, he did not know about EMP. So, what were we talking about a nuclear weapon? We were talking about a nuclear weapon that we, because we had gone to war and had developed a very interconnected, complicated infrastructure where one part depended on another part and we developed that from a base of high quality, readily available raw materials, oil that almost oozed out of the ground at Oil City, Pennsylvania, coal that was exposed by a heavy rain when the dirt was washed off, iron ore in the central part of our country that was cheap enough to transport and almost smelt it in a backyard smelter. Indeed, there is one of those, you can drive up and see it just south of Thurmont on Route 15. It is called Ca-toctin Furnace and they denuded the hills up there to produce coke to make iron there. You see here a very inter-related infrastructure. The point they are making is that if one part of that comes down, suppose you do not have electric power, they have not drawn all the arrows they should have drawn because you are not going to have oil or gas, you are not going to have communications, you are not going to have water, you are not going to have banking or finance, you are not going to have government services, you are not going to have emergency services. You are not going to have transportation without electricity. So if you take down just that one thing, everything comes down. Of course, if you do not have any banking services, pretty soon everything will grind to a halt because they will not have the finances to keep the thing going.

One or a few high altitude nuclear detonations can produce EMPs simultaneously over wide geographic areas. Again, I am quoting from the commission. Unprecedented catastrophic failure of our electronics-dependent infrastructures could result. I think that you should almost put the verb in there, Mr. Speaker, would result. You may have noted in the paper just today, I think, or yesterday, there was an account that we almost had another big blackout, just almost tripped that big blackout and there is no catastrophic insult like an EMP laydown to cause the greatest damage. The Power, transport, telecom and financial systems are a particularly vulnerable and interdependent. We just talked about that, very vulnerable, lots of computers, very interdependent. One goes down and they all come down. EMP disruption of these sectors could cause large scale infrastructure failures for all aspects of the Nation’s life.

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Both civilian and military capabilities depend on these infrastructures. Without adequate protection, recovery could be prolonged months to years.

What would happen if that was prolonged months to years? Increased dependence on advanced electronic systems results in the potential for an increased EMP vulnerability of our technologically advanced forces, making EMP probably the most attractive asymmetric weapon EMP threat is likely to the Western nations to project influence and military power. We could be easily blackmailed by a country that has the
I would like to say, Mr. Speaker, that the EMP Commission report is really a good-news story. One would not think it was good news pointing out how very vulnerable we are, but the good news is that we now know how vulnerable we are. And we know that this is fixable; and it is fixable for less cost than the Iraq war. We just need, Mr. Speaker, to do it. It is not going to happen overnight. It is going to happen quicker in our military than in our private sector because we turn over our weapons programs quicker than we turn over our big transformers and our power grid and so forth. But we can little by little, year by year, fix our national infrastructure and fix our military so that we are not as vulnerable. Mr. Speaker, being vulnerable like this, and I pointed out comments from the writings of a number of our potential enemies, it is not that they do not know this. Not one person in 50 in the United States will know it, but it is very obvious; they know it. They know we are vulnerable enemies know about this. Our very vulnerability invites that attack. Because we are so vulnerable, because it is so asymmetric, we invite that attack. Mr. Speaker, we need to do everything we can to lessen the probability of an attack. And the longer we go unprotected from EMP, the more we invite this attack and the more vulnerable we are. U.S. strategy to address the EMP threat should balance prevention, preparation, protection, and recovery.

We have been talking primarily, Mr. Speaker, about prevention, about hardening, so that those pulses will not get through so that it will not fry the equipment and our infrastructure can keep working. There are a number of things we need to do in preparation.

One of the things we need to do is to have the equivalent of the old civil defense. In our homeland security we really are not looking at civil defense. When we were in combat those shelters were a little younger but mostly my age can very well remember all those fallout shelters, and the young people may have noticed some of those rusting signs and wondered what they were because there were fall-out shelters almost everywhere a generation ago.

In the 1950s, IBM was lending their employees money interest-free to build backyard shelters. We were expecting the potential of a bolt out of the blue, that would then frightened us down on us. And there were brochures put out by the government telling us how to build a fall-out shelter, what to put in the fall-out shelter, what we needed to buy. EMP is not going to be anywhere near as hard to protect ourselves against as a nuclear explosion and all that fall-out. But to the extent that each of us and our families and our communities are prepared for this, our country is going to be enormously stronger should this happen to us.

And, by the way, if one is preparing for an EMP attack or for a terrorist attack or anything that disrupts our usual economy, we have about 3 days' supply of food in any one of our big cities. If the trucks do not keep coming, the supermarket may be open 24 hours a day, but when we are in there, Mr. Speaker, we are going to see that as we are taking it off the shelf, they are stacking the shelves. This is going to continue going on and there are only about 3 days of food. What would happen if our trucks could not run? What would our cities do after those 3 days after the food was gone? It is very easy. Mr. Speaker, to stock far more than those days of food.

A number of years ago, there was a very well-known economist by the name of Howard Ruff. He had made some predictions about the stock market that made him kind of an icon in his day, and people would come to him for advice. And a very interesting story, when they came with their money and said, How should we invest our money Mr. Ruff, he would say, Do you have a year's supply of food for your family, and do you have a bag of silver? You do not have any money to invest. The first thing you need to do is buy a year's supply of food for your family, and then back and we will talk about how to invest your money because that is the best investment that you need to make. They would come back, and he would say, You have a year's supply of food? Yes, Mr. Speaker.

Well, he said, do you have a bag of silver? A bag of silver is a bag of junk silver and one may do something else but they need the equivalent of this. That is junk silver. It is silver that has no numismatic value, and it is in bags that are sealed and they have a $1,000 face value. He said, Unless you have a bag of silver for each member of your family, you have not made the second most important investment; so go buy that and come back and we will talk about what to do with the rest your money.

These are the kinds of things that Americans need to be thinking about. What can they do, Mr. Speaker, what can their family do, what can their church group do so that they are not going to be a liability on the society should there be a terrorist attack that shuts down these services or should there be a national EMP attack that shuts them down all over our country? We can do something, Mr. Speaker, to prepare ourselves so that we are going to have some sense that we can make it through so that we are not going to be a liability on the system. Let me show the last chart here now in our conclusion. The fiscal year 2006 defense authorization bill contains a provision that extends the EMP Commission's life to ensure that their recommendations will be implemented. We want to make sure that we are doing. We want them to tell us and to tell the public. We are a representative government here; and when our
people call in and say, Are you doing this, are you doing that, my wife points out that if we do not represent our constituents, we will not represent our constituents. So if the people across our country demand that we be prepared, that we tell them how to be prepared themselves, then we will do this.

The terrorists are looking for vulnerabilities to attack, and our civilian infrastructure is particularly susceptible to this kind of an attack. Our very vulnerability invites this attack.

Mr. Speaker, we obviously cannot do it yesterday. We certainly need to do it today and tomorrow to begin to protect ourselves against it. The Department of Homeland Security needs to identify critical infrastructures. What are the first things, Mr. Speaker, that we need to turn our attention to? Where would a minimal investment pay the biggest dividends? And we need to have people studying this. The EMP Commission has made a lot of very good suggestions. If we simply followed those suggestions, we would be a long way to where we need to be. The Department of Homeland Security also needs to develop a plan to help us deal with such an attack should it occur, and then the little note that our citizens need to become as self-sufficient as possible.

Mr. Speaker, we have spent the better part of an hour talking about something that one might expect to see in a science fiction movie or in some magazine that is talking about the improbable. But what we are talking about here is a very possible, and I think probable, event. It is something that the American people have not been very much aware of. We hope that this awareness, as the EMP Commission continues its work, will be more widespread. We hope that the American people will respond by doing two things: First, responding that their government, that their Representative make the right kinds of choices and appropriate the right kinds of moneys to start on the path to developing a military that is immune to EMP attacks and to, as quickly as possible, develop a national infrastructure that will not collapse like a house of cards with an EMP attack. And, also, I believe that our citizens will demand that we tell them what they can do.

There is an interesting phenomenon, Mr. Speaker. If in anticipation of a hurricane this fall, one goes to the grocery store now and stocks up on some things that they need, they are going to be a patriot because they are improving the economy. If they wait until the hurricane is on its way and then they go to the store to stock up on what they need, they are no longer a patriot. They are now a hoarder.

Mr. Speaker, there is an old saying that to be forewarned is to be prepared. I know that probably not even one in 50 Americans has ever heard of EMP, but I will assure the American people that our numerical enemies know all about EMP. We see it in their writings. We see it in their war games. And what we need to do, Mr. Speaker, is to proceed as rapidly as we can to develop a military that is immune to EMP, to develop an infrastructure that as quickly as possible will be less and less damaged by EMP, and to provide each American citizen with the information they need so that they, their family, their social club, their church, and, as individuals, as families, as groups, can plan so that they will be as self-sufficient as possible in whatever emergency occurs.

And who knows what the terrorists might do to us. This is clearly the most devastating, the most asymmetric attack that could be made on our country; but there could be lesser ones that could for one’s family, one’s locality be just as devastating as an EMP attack.

Mr. Speaker, I know the American people will respond and know when our enemies see us responding that the risk of this kind of attack will be immensurably lessened because the less vulnerable we are, the less likely they are to attack.

Mr. Young of Florida (at the request of Mr. DeLaughter) for today on account of business in the district.

SPECIAL ORDERS GRANTED

By unanimous consent, permission to address the House, following the legislative program and any special orders heretofore entered, was granted to:

(The following Members (at the request of Ms. Jackson-Lee of Texas) to revise and extend their remarks and include extraneous material:)

- Mrs. McCarthy, for 5 minutes, today.
- Ms. Emanuel, for 5 minutes, today.
- Mr. Brown of Ohio, for 5 minutes, today.
- Mr. DeFazio, for 5 minutes, today.
- Ms. Brown of Florida, for 5 minutes, today.
- Mrs. Jones of Ohio, for 5 minutes, today.
- Ms. Woolsey, for 5 minutes, today.
- The following Members (at the request of Mr. Jones of North Carolina) to revise and extend their remarks and include extraneous material:)

- Mr. Poe, for 5 minutes, today.
- Mr. Gutknecht, for 5 minutes, June 22.
- Mr. Paul, for 5 minutes, today and June 22.
- Ms. Foxx, for 5 minutes, June 23.
- Mr. McCaul of Texas, for 5 minutes, today.
- Mr. Norwood, for 5 minutes, June 22.
- Mr. Weldon of Pennsylvania, for 5 minutes, today.
- Mr. Jones of North Carolina, for 5 minutes, today and June 22.

(The following Member (at her own request) to revise and extend her remarks and include extraneous material:)

- Ms. Jackson-Lee of Texas, for 5 minutes, today.

SENATE BILL REFERRED

A bill of the Senate of the following title was taken from the Speaker’s table and, under the rule, referred as follows:

S. 1282. An act to amend the Communications Satellite Act of 1962 to strike the privatization criteria for INTELSAT separated entities, remove certain restrictions on separated and successor entities to INTELSAT, and for other purposes; to the Committee on Energy and Commerce.

BILLS PRESENTED TO THE PRESIDENT

Jeff Trandahl, Clerk of the House reports that on June 21, 2005 he presented to the President of the United States, for his approval, the following bill:

H.R. 883. To designate a United States courthouse in Brownsville, Texas, as the "Reynaldo G. Garza and Filemon B. Vela United States Courthouse".

ADJOURNMENT

Ms. Jackson-Lee of Texas. Mr. Speaker, I move that the House do now adjourn.