

South Fort Mitchell until that city merged with Fort Mitchell in 1967. He continued to serve as a council member for a combined total of 18 years, until 1981 when he was elected mayor.

William Goetz was mayor of Fort Mitchell from 1982 until April of 1993 when he was appointed city administrator and held that position for 12 years, until announcing his recent retirement.

Mr. Goetz has also served the city throughout his career as a member and an officer of numerous local and State organizations, including serving as president of the Municipal Government League of Northern Kentucky, president of the Northern Kentucky Area Planning Commission, chairman of the board of the Kentucky Municipal Risk Management Association, and president of the Kentucky League of Cities, a great record of public service.

Mr. Goetz has shown a devotion to employee relations and spearheaded efforts to improve employee benefits, which in turn allows the city to retain its seasoned employees, a great workforce with a long history of good service.

A devoted family man, Bill Goetz spends much of his free time with a large, extended family cheering on the Cincinnati Reds and the Cincinnati Bengals football team.

The retirement of William Goetz after over four and a half decades of public service will result in his being greatly missed by elected officials, employees, residents, longtime associates and friends of the city. He is a consummate professional who has always been a pleasure to work with, held a wealth of knowledge, demonstrated a will to help others and a will to continually serve the community. I am sure that that will continue long into the future.

Thank you, Bill, for your service.

□ 1630

NUCLEAR ELECTROMAGNETIC PULSE

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

Mr. BARTLETT of Maryland. Mr. Speaker, the subject that I want to spend a few moments talking about this afternoon really began for our country in 1962. We were still testing nuclear weapons then, and for the first time the United States tested a weapon above the atmosphere. This weapon was detonated over Johnston Island in the Pacific. This was a part of a series of tests called the Fishbowl Series, and this was Operation Starfish in 1962. We had no prior experience with the detonation of a weapon above the atmosphere. We prepared for this test with airplanes and ships using radar and theodolites and instrumentation to measure the effects on the ground from a blast that was some 400 kilometers in altitude.

In conversations just today with Dr. Lowell Wood from Lawrence Livermore Laboratory, I learned more of the details of the results of that test. They had not anticipated the magnitude of the effects at the ground under the blast; so many of their instruments simply pegged and they were not able to get a clear indication of the effects. I might note that the Soviets had extensive testing experience with EMP over their own territory. They had a much larger territory than we and some of it quite remote; so they were able to instrument more extensively and had a lot more experience than we have had. This was our first and only experience with a superatmospheric detonation of a nuclear weapon.

The effects over Hawaii, which was about 800 miles away, included several totally unexpected things; so there was no instrumentation on Hawaii to record the effects.

So all they can divine from the effects is what happened. Some street lights went out, and analysis after the fact indicated that these were the street lights that were oriented so that there was a very long line effect. In other words, the wires feeding the street lights constituted a very long antenna which received the signals from the detonation in space such that there was arcing and some of the street lights went out. This was investigated, and some of the failures were retained and were shown to a commission that I will talk about in a few minutes, Mr. Speaker, that spent 2 years studying these effects and the risk to our military and to our country.

There were other effects in communications and so forth. As I said, none of this was expected; so there was no instrumentation. We have since tried to determine the effects of what is called electromagnetic pulse produced by a nuclear detonation. We have done that with laboratory devices, some of them quite large that could expose a whole airplane, but none of them obviously large enough to include miles and miles of long-line effect.

The EMP pulse at that distance was estimated to be about five kilovolts per meter. We will have occasion in a little bit to talk about that in light of present capabilities. Because there was intense activity above the atmosphere, the Van Allen belts were pumped up; so there were a number of low Earth orbit satellites that decayed very rapidly as they passed through the Van Allen belts.

Mr. Speaker, I want to kind of put what we are going to say in context. So I want to indicate here some of the seriousness of EMP and its implications. In 1999, I sat in a hotel room in Vienna, Austria. I was there with 10 other Members of Congress and several staff members. We had there three members of the Russian Duma and a representative of Slobodan Milosevic. This was just prior to the resolution of the Kosovo conflict. We developed with them a framework agreement that was

adopted about 5 days later by the G-8, which the Members may remember ended the Kosovo conflict.

One of the members of the Russian Duma was Vladimir Lukin, who was well known to this country because he was the ambassador here at the end of Bush I and the beginning of the Clinton administration. At that time he was a very senior member of the Russian Duma. He was very angry and sat for 2 days in that hotel room with his arms crossed looking at the ceiling. We had not early asked the Russians for help and they felt offended about that, and the statement he made expressing that sentiment was that "you spit on us. Now why should we help you?" And then he made a statement that stunned us. The leader of that delegation was the gentleman from Pennsylvania (Mr. WELDON), who speaks and understands some Russian. And when Vladimir Lukin was speaking, he turned to me and he said, "Did you hear what he said?"

Of course I heard what he said, but I did not understand it because I do not understand Russian.

But then it was translated, and this is what he said: "If we really wanted to hurt you with no fear of retaliation, we would launch an SLBM," which if it was launched in a submarine at sea, we really would not know for certain where it came from. "We would launch an SLBM, we would detonate a nuclear weapon high above your country, and we would shut down your power grid and your communications for 6 months or so."

The third-ranking communist was there in the country. His name is Alexander Shurbanov, and he smiled and said, "And if one weapon would not do it, we have some spares." I think the number of those spares now is something like 6,000 weapons.

This likely consequence of a high-altitude nuclear burst was corroborated by Dr. Lowell Wood, who in a field hearing at the Johns Hopkins University applied physics laboratory, made the observation that a burst like this above our atmosphere creating this electromagnetic pulse would be like a giant continental time machine turning us back to the technology of 100 years ago. It is very obvious that the population of today in its distribution could not be supported by the technology of 100 years ago. And I asked Dr. Wood, I said, "Dr. Wood, clearly the technology of 100 years ago could not support our present population in its distribution," and his unemotional response was, "Yes, I know. The population will shrink until it can be supported by the technology."

Just a word, Mr. Speaker, about what this EMP is. It is very much like a really giant solar storm. All of us are familiar with solar storms and with the disruption to our communication systems. And this is like a really giant solar storm. It is kind of like really intense static electricity everywhere all at once, all over the whole country. It