

House Speaker Newt Gingrich-Information Warfare  
Wednesday, February 8, 1995  
AFCEA Conference, Hyatt Regency Crystal City

GINGRICH: I want to say first of all I'm delighted to be here. This is a very impressive-looking group. I'm not sure, though, at the end of the 21st century having all these rows of people staring straight forward with one person speaking is necessarily our pure vision of information warfare. But I'm glad to be here. I thought what I would do is talk a little while and then take questions. And essentially what I want to suggest to you is a way of thinking about 21st century activities and 21st century warfare and then thinking about information as a subset of that. I think for the very first time we're beginning to discover a little bit about what the post-Soviet world is going to be like. And I draw a real distinction between invention and discovery. Invention is when you already have a pretty good idea of something and you're just in a linear manner planning and projecting ahead based on the data you've already got. Discovery is when you don't really understand what's going on and the first phase is to figure out what does it mean. It's very important to know which of the phases you're in because if you engage with great enthusiasm in invention, in a period where in fact you don't know what you're doing, you can actually drive yourself further and further away from the probable results. And this is ably discussed, in a book by Peter Drucker about 25 years ago called The Age of Discontinuities, it pointed to a inventive continuum. We know how to build fixed-wing aircraft, let's build a better fixed-wing aircraft with a longer range and greater speed. You can invent the

next phase. If you're suddenly in a break through where, for example, you're encountering your first jet aircraft. You had better discover what's going on. Or if you have a low-altitude bombing technique that works perfectly against small caliber ammunition and you discover your first anti-aircraft missile. You now need to go to a discovery mode and try to figure out what we're going to do now. And say this, for example, had a pretty good invention of getting control of the House. We're now in a discovery period of being a majority. It's very important you know which of these two continuums you are in the middle of. I believe that Alvin and Heidi Toffler are essentially correct in their description of a third wave society, they're arguing the first wave is agriculture, the second wave is industry, the third wave is information. My only point as a history teacher being go back and look at the scale of transition from an Australian Aborigine or a bushman of the Kalahari to the rise of Rome or Egypt or Han, China, or the Indus Valley or the Incas or the Aztecs, and realize the scale of change we're describing here. Look at the shifts from the high water mark of agricultural civilization, any of them you want to choose, and look at the rise of industrial societies, and how it frames a revolution, then talk about a revolution in military affairs, we usually mean a moderately large technological change. If you talk about the shift from a Roman legion to Napoleon's army, or the shift from a Roman galley to Lord Nelson's ships of the line, you're talking about transformations on such a scale that everything changes. Well the Toffler assertion is, and it's based on other works catapulting the meaning of 20th century I guess



about 1964 Daniel Bell's *Post-Industrial Society*, Drucker's book I already cited, *The Age of Discontinuities*, all of them say basically the same thing. And that is that the scale of change in technology will be so large that it is a change in kind. And if we're not we are not going from year to year this is different, which would imply a lot of discovery. If you believe that that has happened, you combine with that the collapse of the bipolar contrast between the American's and the Soviet's systems, what is in effect, I think for our world the end of the modern Punic wars, it's important to understand how large that change is. And I think that that leads us, then, taking those changes together. That is the dramatic transition into a third wave information age civilization and the collapse of the only major organizing competitor on the planet lead us into some very major questions for the near future. And what I'm going to try to do is talk about information warfare and relate it to what I regard as the eight major challenges that we face in our generation militarily. And in that context I want to suggest to you that information warfare applies to all eight and I'm going to apply to all eight. But I want to first explain what I mean by information warfare. Because I think it tends to be a little broader, although I think the services are catching up. I've been very privileged by the information warfare school, which has been kind to me and let me come over and nag them on occasion. But what I mean by the term information warfare is not in the narrow technological, how do we handle information sense. I will start with the notion that CNN will be in your living room with a real time communication and you

will be able to see the battle in real time. You'll then be able to pick up your telephone and call your son or daughter who you are watching in real time in a firefight. They will pick up their cellular telephone. You will chat with them about your view of how they are conducting their squad operations. This is all literally true. I mean virtually every soldier in combat in 2010 will have somewhere on their body a personal telephone linked by satellite to a world telephone network. That telephone will probably be a PCS, a personal communication system that will also have computer capability, faxing capability, so during lulls they can arrange a date, they can settle on what they want to have fixed for dinner and they can remind their home computer that it's time to water the plants. A lot of this sounds far fetched but it's not. This is literally the edge of the future. And because the embedded civilian base is going to be radically bigger than the military base, this is a point I first picked up on when studying about the Battle of Arnhem, and realized that the British paratroop division landed with the wrong radio crystals and could not communicate. It did not occur to anybody in the division to walk into any of the homes of the Dutch underground and use their telephone. But the Dutch underground the telephone systems of Holland was never taken down by the Germans. And literally during the Battle of Arnhem, there were Dutch resistance fighters who were talking to the main force, from Arnhem, but it never occurred to the Dutch resistance fighters to go out and talk to the paratroopers, and it never occurred to the paratroopers to walk in and talk to the Dutch. I had a public affairs officer from my district who was a Marine



reservist and serving in Beirut. He would routinely get up every morning, go to a pay phone and use his personal credit card and call a friend of his at the Pentagon who would read him the day's stories from the Post and New York Times and tell him what was on the morning television. He would then brief the expeditionary force commander seven hours before the information arrived from the Pentagon. In Desert Shield, I was with the Blackhawks on Labor Day. And a number of the pilots bought their own GPS systems for \$500 from Sears because they didn't want to wait for the procurement to arrive, they knew that Northern Saudi Arabia was harder to navigate than Fort Irwin and so they wanted a GPS system and they just bought their own. Al Gore came last week, to a conference and showed us a radio the Japanese bought from Motorola for use in Desert Shield because we could not get through our procurement system in time to get the radios to our system. So I regard all of this as information warfare. When I describe information warfare I mean everything from the way in which Eisenhower deliberately manipulated information in order to keep the German armored corp at Calais instead of allowing them to go to Normandy, which is a variation in information warfare. To our deliberate use of a problem being broadcast in such a way that the Japanese would repeat that we were running out of water, so that we could identify that Midway was the island they were picking up on, which is an intelligence aspect. Being able to intervene and break up their opponent's communication capabilities is part of what non-lethality is all about. If you can say one morning to an opponent, you simply will not be able to communicate electronically

in any form, and then bring them down for 20 minutes and bring them back up and say now, are you really serious about a fight. You at a minimum have their entire society's attention. Now, reverse that around. A war game that probably ought to be played at the Information School is imagine that Saddam had decided in August to hire 20 really good hackers. And he said to them as a demonstration of my sincere commitment to avoiding bloodshed in America, start to systematically dismantle America's commercial society. Clancy uses a variant of this in his new novel. Imagine that somebody had simply begun, for example, to feed in false American Express cards. Or that they had decided to take down three AT&T switching systems. Or they had decided to replace 20% of CITIBANKS' records. Would you like to guess how hard it is to do this? A lot cheaper than buying aircraft. And it is potentially devastating in the 21st century. Nobody has thought it through. Similarly, you've got to recognize that there is a real time worldwide information network, most of it civilian. Most of it available to anybody clever enough to understand it. Most of it is decreasingly expensive. The fact is information will grow cheaper and faster. Communication will grow cheaper and faster. And weapons of mass destruction will grow cheaper and easier to conceal. These are all objective facts. If you try to describe the human race in the future, it better be a future where some bad people will have very, very nasty weapons, with an extraordinary capacity to move around the planet, with a very low cost communications and transportation infrastructure. You could literally, probably feed ex a major weapon and nobody would even



know it. It wouldn't show up in a way that was obvious, particularly if you design weapons around known security systems. So it's all plastic so it's all designed not to have anything a dog could smell or a chemical sensor could pick up. I'm describing this because unless we think through very creatively where we are going, we're going to end up like the Austrian and the French army when they faced the Prussian Army. The Prussian army, the German army by 1870, is an intellectual achievement. Moltke, in the 1840s, understands the telegraph and the railroad, there was only 40 miles of railroad in Prussia. So he says to himself, if I can use the telegraph to bring together a large force, and I can use the railroads to bring them in at the right point, my problem will be command and control. He invents the great staff system, which became the German General Staff and is now the universal model for leading large militaries. He designed this as an intellectual response to the challenge created by the telegraph and railroad. Now if that's the case, what will be our intellectual responses to the notion that we will be in a seamless web, here is peace, here is global war and there's no place in between you can draw a bridge. There are things that happen. Imagine, for example, the World Trade Center had been attacked with a nuclear weapon. What are the intelligence requirements to avoid? What will we need to think about in security terms? How likely is it that someone who is clever will have a weapon of that kind by 2005? My guess would be in the high '90s. If you're really serious and work at it really hard, you either buy one or make one. And how prepared are we to deal with them? So we've got to think in constant terms. And I

think there's eight primary challenges to go with it. The first is the notion of a unified battlefield. Essentially, what we are going to do, if I can use a fancy phrase, this works better in a classroom, we are going to replace what has been historically sequential linearity, things occur in sequence and you can draw a line. You plan, you train, you prepare. Deep battle, mid battle, near battle. All sorts of things that are in sequence. This is replaced by holistic simultaneity, a tremendous number of things happen at a particular point in time and space with enormous power. Say go for long periods of nothing happening and then you get great moments of extraordinary excitement and then you go back to long periods. And you can't tell what the difference between deep battle and the forward edge of battle or the forward line of troops what ever you want to call it. So for example, you unify a battlefield. We insert a deep, maybe very early, civilian or an officer or a soldier in civilian clothing. It might have been five years ago or it might have been Tuesday night, and they're now sitting way behind the enemy's line. They have a decision matrix that they would have been trained into, and they have a laser designator, they have a long loiter low visibility system of munitions delivery and they are just hanging around waiting for the right moment. And they're connected by a real time uplink with the White House where the President is chatting about what he is seeing. And you don't have a very well educated and very disciplined national command authority who will get things like Kennedy talking personally to people in charge of destroyers. You have a tremendous sense of discipline and echelonment and a



willingness of each level to give only the appropriate orders even if you can see what's happening. And that's going to require a real doctrine called real thinking. How do we make sure that our knowledge doesn't become interference? But who is this person? It is a person who has a tremendous fire power drawing on national assets launched by a variety of systems, deliverable at a particular point in time. Who do they report to? Who do they belong to? Where do their weapons come from? And how does that alter what the services are and who's in command? And in fact you have five of the units out there sitting around and they have only four elements worth of weapons, who makes the decision of allocation and based on what data? This is all going to happen in fairly real time. And the Air Force tasking systems, 24 hour cycling, I think this will be one of the great breakthroughs of the next decade. We will go to virtual real time tasking, because we will develop long loiter systems capable of hanging out just waiting to use them. Second, on the opposite extreme, we have to develop the ability to fight small wars successfully, meaning Somalia, Rwanda, Bosnia. A small war is very simple. It is a conflict too small to justify the insertion of an American expeditionary force. What we've got to develop is the entire doctrine that allows us to develop over a long period of time the very few people with enormous leverage. For example, in El Salvador, where we had 55 people as our limit. It is conceivable that we build a 400 person El Salvador force. We could have always rotated 55 in, we could have kept a real time electronic database of every soldier in the El Salvador military. We could have had

a learning curve that was real so that people lobbying in Congress from the Pentagon had just come back from El Salvador. The people doing the training at Fort Benning were about to go to El Salvador and people in El Salvador were back working with friends from about three years over there and had stayed in touch with them by telephone and fax and E-mail. Now that is a different kind of system of thought than anything we have ever had. We need to design a national command authority now and integrate it in a permanent capacity to engage in the small wars, with minimum combat capability, with minimum number of people on site, a great nation, great new directions, and great willingness to create structures of information and leverage that aren't necessarily viable for combat in the traditional sense. Third, we need to think through what are the third wave information age intelligence systems. Frankly my fear right now about all that's talked about reviewing intelligence structures is that they will go in exactly the wrong direction. In a multi-centered world in which the cost of violence is declining and in which there are many small groups prepared to wage very expensive campaigns, you have to have more human intelligence, synthesized more effectively in available in close to real time speed. And you don't know which group matters until it shows up. You have actually got to have a larger investment in intelligence and more layers dispersed across the planet with greater ability to synthesize it and to understand the different rhythms between a Russian main force or a Chinese naval flotilla or Indian army and the 27 people currently wandering around New York City connected to Iran and eagerly seeking a target where they



looking for a vision of a unified battlefield or a vision of small wars doctrine to put into national command authority, a vision of a third wave intelligence system, and similarly, what I'm suggesting to you is we need a brand new vision of research, development and procurement that starts with the Lockheed Skunk works model, starts with the X-project model of the 1940s and early 50s, we just went and did it, you flew it, it crashed, you built a second one. You did not waste lots of time trying to decide whether or not you could spend so much time minimizing the likelihood of a crash that it would have been cheaper to have seven projects crash than to have all those committee meetings. I'm also suggesting that you look at things as dramatic as three year contracts, where like college football coaches we're always talking about the third year. We get tremendous stability in the procurement base. It's a very different model. If we're going to get to a balanced budget by the year 2002, we have got to find a way to use our resources rationally and we've got to get the highest return on the dollar. And the Congress has to discipline themselves to be part of the system that is orderly, intelligent, and adult-like in its decision-making. This is an enormous transition for them. The same thing is true for the Office of Management and Budget and it is true for the Pentagon. So just take this as a marker, 80% cut in the time to field equipment, 40% cut in the cost of procurement for major systems. Those are the marks we want to create. Fourth, we need to learn how to lead a multi-centered system. Two things, there is no single country that dominates the planet, no one else can lead but us. Both are true.

We don't own the planet, we're not like the Roman empire in the Mediterranean. But clearly when we fail to lead the whole system, it just collapses. And we're going to have to think through and again think about information warfare, think about intelligent gathering, think about the sophisticated diplomatic and financial and other relationships. We come to a level of planning and level of organizing information more sophisticated than anybody's ever dreamed of in history. Yet, if we do not lead the planet there is no one. That doesn't mean dictate the planet. It actually requires listening, learning and helping your allies, so the leadership comes last, not first. We need to cajole more than bullying, sharing with each other rather than dictating. Because if no one else can do it, we better learn the system to do it. We also need to recognize, and this is a very important area for information warfare, it's important to remember the technology. There is a perennial danger of a break out. What happens when somebody invents a system that obsolesces everything you're doing. What is the danger? What would it be like? How do we look for it? If the Chinese or the Russians or Japanese, the Indians, those are the four most likely, one of them gets lucky, what would it be like? Or if the terrorists who finds something that really is so frightening we don't know how to cope with it. Now remember sheer blackmail works if you are serious. We need to constantly ask ourselves how to avoid the mistake of underestimating our opponents, I mean like the French were when they took on the Germans army in 1870. How do we constantly look for breakthrough could in fact amount to changes? We also, I think, have to reassess



on our whole framework I am teaching a course at the Industrial College of the Armed Forces right now because the Industrial College of the Armed Forces is in a sense the natural result of 1925 effort to integrate military planning in the industrial era but if the Tofflers are right, instead of talking about the national industrial base, we should talk about the national information base. What does it mean that Madras, India, is the second largest center of software development in the world? How do you assess information bases around the planet? What should our tax laws and information laws and copyright laws be like if you want to be the dominant power of the planet in the information age? And as important as school lunches were to develop young people who were physically well enough to be in the military that was Sen. Richard Russell's argument for the school lunch program then what should we be doing for our human initiative in society that we're prepared in information warfare and information age and we have a society prepared to in fact be the leading power on the planet. Finally, I want to suggest to you two examples of theater level campaign planning in which we are engaged in right now. Neither of which we are dealing with intelligently at a theater level campaign. The first is the drug war. The drug war is not intellectually a hard problem. It's a theater campaign, it runs from your neighborhoods, where some of your friends are buying drugs, to Colombia, Bolivia, and other places where drugs are produced. But it is an understandable, definable interactive process between two competitive systems each seeking the other one. That's the essence of a theater campaign. There ought to be a

central intelligent system which has a central management capacity which integrates all of the anti-drug capabilities in the United States in which, from the grower in Bolivia to the processing plants, to the bank accounts of drug dealers to the transportation network, to the entry into the U.S., which is an act of war and a deliberate act of violence against the American people. To the seller on the street, to the user who stupidly subsidizes an anti-American campaign of extraordinary proportions. At every level, there should be an integrated system, basically a CINC that's doable if we simply have the will to force the structure into a relationship with the head of the theater commander and their willingness to subordinate to him. And to say, well, we can't get the DEA and FBI and INS and border patrol, etc. all to work with each other, is to say we're too pathetically unwilling to impose our will on defeating our enemy that is destroying our children. Now that's true. The second theater campaign we use, we cannot tolerate the continued spread of Islamic totalitarianism and the danger of an Iranian state that would have nuclear weapons and willingness to swap Iran for Tel Aviv or swap Qum for Chicago. This is a very serious problem. To the best of my knowledge, no one has ever produced a map which shows you a pattern of Islamic totalitarian terrorism across the planet. How many different places could it occur? What does this suggest to you about intelligence? Who finances it? Where does the network run? These are not isolated incidences in Argentina or New York City or London. So what's the relationship? What is our theater level of strategy now here I am using the entire world as a theater but I'm using



the concept of a theater as a functional description. What is the totality of our strategy, which will help Algeria survive, help secularism survive in Turkey and Egypt? All of this is designed to force the replacement of current regime in Iran, the only long-range solution that makes any sense. And break ups the capacity of the totalitarian forces, whether they're in the West Bank killing Israeli's or they're in New York City killing Americans. This is just a straightforward theater campaign but it requires a level of information processing, networking worldwide ability to talk to ourselves that is totally different than we're currently used to doing. Those are, in my judgment, the major challenges we face in the relatively near future. We all need to begin answering first at the vision level, the strategy level. We need to drive the answers by professionalism, not by bureaucratism. What that means is when you run into a place where what you know works, you should have a professional obligation to tell them what works, not what employs you. You can not ask for courage on the battlefield, you can not ask for courage in politics and then explain that it will make your superior mad to tell the truth. So we need a great deal of honest professional debate about how we create the 21st century American system that allows us to lead the human race in freedom and security and opportunity and prosperity. If we have time, Admiral, I would be willing to take questions.

END OF TAPE.