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UNITED STATES POLICY IN IRAQ: NEXT STEPS

HEARING

BEFORE THE

INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES SUBCOMMITTEE

OF THE

COMMITTEE ON GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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CONTENTS

Opening statements: Page

Senator Akaka 1
Senator Thompson 3
Senator Domenici 10
Senator Cochran 21

Prepared statement:

Senator Carnahan 31

WITNESSES

FRIDAY, MARCH 1, 2002

Robert J. Einhorn, Senior Adviser, International Studies Program, Center for Argument and International Studies 4
David A. Kay, Vice President, Science Applications International Corporation 7
Richard O. Spertzel, former head of UN Special Commission (UNSCOM) Biological Weapons Inspection, and former Deputy Commander, USAMRIID 12

ALPHABETICAL LIST OF WITNESSES

Einhorn, Robert J.:

Testimony 4
Prepared statement 33

Kay, David A.:

Testimony 7
Prepared statement 43

Spertzel, Richard O.:

Testimony 12
Prepared statement 48

ADDITIONAL COPY SUBMITTED FOR THE RECORD

Questions and answers submitted for the record for Mr. Kay from:

Senator Domenici 57
Senator Carnahan 58

Questions and answers submitted for the record for Mr. Spertzel from:

Senator Akaka 60
Senator Domenici 62
Senator Carnahan 63
Appendix: Background 65

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UNITED STATES POLICY IN IRAQ: NEXT STEPS

FRIDAY, MARCH 1, 2002

U.S. SENATE,
INTERNATIONAL SECURITY, PROLIFERATION,
AND FEDERAL SERVICES SUBCOMMITTEE,
OF THE COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:29 a.m., in room SD–342, Dirksen Senate Office Building, Hon. Daniel K. Akaka, Chairman of the Subcommittee, presiding.

Present: Senators Akaka, Carper, Thompson, Domenici, and Cochran.

OPENING STATEMENT OF SENATOR AKAKA

Senator AKAKA. The Subcommittee will please come to order.

This Subcommittee has held hearings over the past 5 months on the proliferation of weapons of mass destruction around the globe and the threat they pose to the United States and our allies. We have discussed how non-proliferation programs, multilateral regimes, and export controls can prevent the spread of WMD to other countries and terrorist organizations. Today, we face the question of what to do once a nation—in this case, Iraq—has such weapons.

The United Nations inspections between 1991 and 1998 were successful in uncovering and reducing much of Iraq's WMD capabilities. Economic sanctions have prevented Iraq from acquiring materials to restore its military-industrial base and have severely limited clandestine arms acquisition.

However, Iraq continues to pose a significant national security threat to the United States. It continues to rebuild its weapons of mass destruction capabilities. If UN sanctions were completely lifted, its weapons program would accelerate. We may have hindered or prevented upgrades to Iraq's WMD capabilities, but what should we do about the capabilities they already possess?

Even this may not be the case, as one of our witnesses today will state his assessment that Iraq's biological weapons program is stronger today than it was in 1990. These are the facts. Iraq had a sophisticated WMD program, including a nuclear weapons program. Iraq used chemical weapons against its own people and its neighbor Iran. Iraq had and has a missile program which can deliver WMD. We believe that Iraq continues to have and develop WMD warheads.

Now, the questions are: How worried do we need to be? And what should we do about it? Should we become more aggressive

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militarily and more active in our support of Iraqi opposition groups?

There has been considerable discussion about whether or not the United States should invade Iraq to overthrow Saddam Hussein. There has been less talk about invading Iran, although Iraq, Iran, and North Korea are described by President Bush as the "axis of evil." Yet the WMD programs in Iran may be more advanced because they have been able to proceed without the restraint of UN sanctions.

Iran is believed to be developing nuclear, chemical, and biological weapons and intercontinental ballistic missiles. We also know that our own Department of State lists Iran as an active state sponsor of terrorism and is systematically abusing its own people. We hope Iran can change from within, but there are no guarantees, and anti-American hard-liners appear to be still in charge.

Can we attack one country and not the other? That question is among the many I hope we will address today. For example, another Gulf War will likely require many more troops than are now deployed in Afghanistan and may result in chemical and biological attacks against our forces.

My view at this time is that we should continue to push to get UN inspectors back on the ground, both to constrain the Iraqi WMD program and to gain a better understanding of the scope of current Iraqi efforts. Keeping Saddam Hussein bottled up and forcing him to confront obstacles in every direction is not a bad outcome as we consider our long-term strategy while rebuilding our military arsenal.

I have asked our witnesses to describe the current Iraqi WMD threat. They will also discuss the impact sanctions have had on the weapons programs and how international opinion of the Iraqi WMD threat has changed. I have also asked them to discuss policy options and their consequences.

Our witnesses are the Hon. Robert Einhorn, Dr. David Kay, and Dr. Richard Spertzel.

Robert Einhorn, of the Center for Strategic and International Studies, was Assistant Secretary for Non-Proliferation in the State Department from November 1999 to August 2001. He was responsible for non-proliferation of nuclear, chemical, and biological weapons, missile delivery systems, and advanced conventional arms. His experience will serve us well in our discussion today.

Our second witness, Dr. David Kay, of the Science Applications International Corporation, was the United Nations chief nuclear weapons inspector from 1991 to 1992 and led many inspections into Iraq to determine their nuclear weapons production capability. He will share with us his insight and expertise on the Iraqi nuclear weapons program.

Our final witness, Dr. Richard Spertzel, is a retired Army colonel and former Deputy Commander of the U.S. Army Medical Research Institute of Infectious Disease at Fort Detrick, and is an expert on biological weapons. He has served as the head of the United Nations Special Commission Biological Weapon Inspections Team in Iraq from 1994 to 1998. I look forward to hearing his views on Iraq's biological weapon prospects.

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I want to thank all of our witnesses for being with us today and helping us to make sense of the numerous reports and speculations about Iraq's WMD capabilities.

I would like to yield to my colleague, Senator Thompson, for his statement.

OPENING STATEMENT OF SENATOR THOMPSON

Senator THOMPSON. Thank you very much, Mr. Chairman, and while we often thank our Chairman for holding hearings as a matter of course, I really do thank you for having these hearings today. I can't think of anything more timely and more important. Although it is a Friday and some of our colleagues are beginning to think about greener pastures, I am glad we have this opportunity with such distinguished gentlemen here to help enlighten us. This is clearly a situation where the status quo is not satisfactory because while our policy might be status quo, what is happening in Iraq clearly is not.

Iraq has used weapons of mass destruction. It has invaded its neighbors. It has violated international arms control obligations. It has lied and concealed at every step of the inspection process. It has defied the United Nations. It has continued to build up its weapons of mass destruction. It is headed by a person who is unpredictable and will not necessarily follow our notions of logic.

Clearly, it all makes for an extremely dangerous situation. If Saddam obtains the weapons of mass destruction that he apparently is working on, it is not only a threat to Israel, it is not only a threat to oil supplies in the region, it is not only a cause for countries like Iran to build up their capabilities, but apparently all he lacks is sufficient fissile material and a little more delivery capability, and he will be able to hit the United States one of these days with nuclear weapons.

So the threat is growing. The sanctions are a sham. We have lost our allies in the process with regard to this matter, and we are losing the PR battle. So, clearly, something has to be done. We have got a situation where Russia and France and other countries are vetoing any efforts to get any positive results out of what the United Nations has been trying to do. Dozens of countries fly in and out of there, violating the air ban. It is not only bad policy, it is disrespectful. And to me, I think the worst thing in the world that could happen is for Saddam to let inspectors back in. I know that is what the administration is calling for. I don't know whether they really want it or not, but I hope not, because if, in fact, we got back in there, it would be the same old song and dance. It would take months and months to gear up to get people back in there. Inspections are based on the notion that someone is not doing something and wants to be able to prove it. We clearly know that is not the case; therefore, it just means another cat-and-mouse game, at which point he would run to the United Nations and get his friends there to protect him with regard to whatever he is doing. And by that time, months, if not years, have passed and actually it puts off any chance for a regime change, which is the ultimate resolution, it seems to me.

But, anyway, it is important that we understand, the American people understand the seriousness of the issue, and we need all of

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the help and wisdom we can get, and I am sure we are going to get some today. So thank you again for holding these hearings today.

Senator AKAKA. Thank you very much, Senator Thompson, for your statement.

We would like to proceed now with the testimony. I just want to apologize for the lateness. I think you know we had a vote call at 10 a.m., and for that reason we are slightly delayed. But we certainly welcome you and look forward to your statements.

Mr. Einhorn, we would welcome any opening statement or comments you may have. We will include your full statement in our record of the hearing, and also ask you to try to summarize your statement for us. Thank you very much, Mr. Einhorn.

TESTIMONY OF ROBERT J. EINHORN,[1] SENIOR ADVISER, INTERNATIONAL STUDIES PROGRAM, CENTER FOR ARGUMENT AND INTERNATIONAL STUDIES

Mr. EINHORN. Thank you, Mr. Chairman, and thank you, Senators Thompson and Domenici, for this opportunity to appear before the Subcommittee.

In his State of the Union speech, President Bush vowed to prevent regimes that seek chemical, biological, or nuclear weapons from threatening the United States and the world. He said that he would not stand by as peril draws closer and closer.

Most experts believe that the peril of Iraqi weapons of mass destruction is very close, and, indeed, in some respects it already exists. Today, or, at most, within a few months, Iraq could launch missile attacks with chemical or biological weapons at its neighbors. Within 4 or 5 years, it could have the capability to threaten most of the Middle East and parts of Europe with missiles armed with nuclear weapons containing highly-enriched uranium produced indigenously. Within that same period, it could threaten U.S. territory with nuclear weapons delivered by non-conventional means.

If Iraq managed to get its hands on sufficient quantities of already produced fissile material, these threats could arrive much earlier.

We have an enormous stake in stopping Iraq's WMD programs. If we fail to stop them, we will have a much more difficult time heading off Iran's efforts to acquire comparable capabilities. And a nuclear arms competition north of the Gulf will certainly stimulate interests in such capabilities elsewhere.

We must also be concerned about Iraq's links to terrorists and about the possibility that Iraq might share WMD-related materials and expertise with terrorist groups. But Iraq's illegal pursuit of weapons of mass destruction capabilities is a sufficient basis, independent of whatever role it may be playing in global terrorism, to treat it as a dangerous threat that must be neutralized.

But one thing should be clear. After over a decade of effort trying to disarm Iraq, the current regime in Baghdad will not voluntarily come clean about its current programs or give up WMD and missile delivery capabilities for the future. The importance it attaches to

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[1] The prepared statement of Mr. Einhorn appears in the Appendix on page 33.

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those capabilities can be measured by the well-over $100 billion in national income that the leadership has chosen to forego rather than to meet its disarmament obligations and have the sanctions removed.

No inducements or blandishments, not even the growing prospect of military action by the Bush Administration, are likely to produce a genuine change of heart and a decisive and credible change of behavior as far as weapons of mass destruction are concerned.

Given these considerations, one must conclude that the only reliable and durable way of preventing Iraq from regenerating and enhancing its weapons of mass destruction and proscribed missile capabilities is to replace the current regime with one that is prepared to abide by its international obligations. A consensus seems to be developing in Washington in favor of regime change in Iraq. The debate is no longer over whether but over when and how.

This hearing has not been convened to discuss the questions of when and how, but because a strategy for regime change is likely to take additional time to develop, to prepare for, and to execute, anywhere from several months to perhaps a year or even more, we should give consideration to the interim steps we should be taking now to address the Iraqi WMD threat.

An important interim step is scheduled to be taken May 30. It is to revise the current UN sanctions regime so as to expedite the delivery of a wider range of civilian goods to the Iraqi population while focusing the trade restrictions more narrowly on dual-use items that could contribute significantly to proscribed weapons programs. By reducing the workload for U.S. reviewers, these smarter sanctions could enable them to give closer scrutiny to the most sensitive cases. And by reducing delays in the approval of goods for the Iraqi people, they could help shore up international support for the remaining more tightly focused restrictions on Iraqi imports.

Another interim step would be to minimize Iraq's illegal oil sales. The proceeds from these sales go directly to Baghdad rather than to the UN escrow account. They give Iraq the income to purchase clandestine imports for its military programs. Because Iraq makes these illegal sales at heavily discounted prices, it will be hard to get the purchasers, including Syria and U.S. friends, Jordan and Turkey, to limit them or to put them under the Oil-for-Food Program. But it is important that we press them to do so.

The United States should also seek to reduce Iraq's illicit imports. It should urge Iraq's neighbors to adopt a much more serious approach to monitoring border trade and should offer them technical and material assistance to help them screen cargos more effectively.

The administration should also press key states that trade with Iraq, including Russia and China, to exercise much more rigorous scrutiny and control over exports to Iraq. And we should be working aggressively with other governments to interdict sensitive cargos headed to Iraq when we receive information about such shipments.

Another possible interim step would be the return of UN inspectors to Iraq. In recent weeks, President Bush and his advisers have repeatedly called on Iraq to readmit the inspectors. But at times, including in Secretary Rumsfeld's recent appearance on "Face the

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Nation," administration officials have expressed skepticism about the value of resuming UN-mandated verification in Iraq.

Among the concerns expressed about UN inspections is that the inspectors wouldn't have the same intrusive inspection rights as the UN teams that operated before December 1998. Another concern is that they wouldn't find or learn much of value and that they would end up giving Iraq an unwarranted clean bill of health and actually facilitating the removal of sanctions.

Much of this concern is exaggerated. The new UN Monitoring, Verification, and Inspection Commission, or UNMOVIC, and the International Atomic Energy Agency, or the IAEA, would have the same inspection rights, at least on paper, as their predecessors. UN resolutions make clear that Iraq must cooperate in all respects and make progress in resolving key remaining disarmament tasks before the Security Council can even give consideration to suspending sanctions, and sanctions cannot be lifted altogether until all outstanding disarmament issues are resolved.

Moreover, suspending or lifting sanctions would require an affirmative decision by the UN Security Council, and, of course, the United States will have a veto in any such decision.

Now, it is true that inspectors would rarely, if ever, be able to find anything that Iraqis have taken pains to conceal. If they approach anything incriminating, we would expect the Iraqis to deny them access. But even if the inspection teams are unable to ferret out and expose hidden capabilities, they may nonetheless be of value in terms of understanding and constraining the Iraqi WMD threat.

In particular, the installation of sophisticated monitoring equipment at hundreds of locations and the constant movement of inspection teams around the country would complicate Iraq's covert programs, making it somewhat harder and more expensive to keep those efforts hidden and probably slowing the pace and decreasing the scale of those programs.

Monitors would give us a better appreciation of Iraq's missile programs and their breakout potential. They would also provide assurance, as long as they had access and their equipment was operating, that illicit production was not taking place at known dual-use and other suspect facilities. But this brings me to the most serious shortcoming of renewed UN verification.

At their very best, the inspectors can complicate, constrain, and slow down Iraq's clandestine efforts and give us a better picture of what is going on in Iraq than we have today. But they cannot compel Iraqi compliance and, therefore, cannot put an end to the WMD threat posed by Iraq. In other words, they can contain the problem, but they cannot solve it.

Moreover, having the inspectors in Iraq could complicate a strategy of regime change. It would give other countries, including the Europeans and states of the Middle East, an excuse for arguing that military action should be deferred while inspections are given a chance to resolve the WMD problem.

All this said, the debate about whether the inspectors should return is probably moot. So far, Iraq has given no indication that it is willing to allow the inspectors to go back on terms that the United States could conceivably support.

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However, we can't rule out the possibility of a reversal by Iraq, especially if the Bush Administration's tough posture has made the Iraqis nervous. But we will see when the Iraqi Foreign Minister comes to New York and speaks to UN Secretary-General Kofi Annan next week.

If Iraq says the inspectors can return, the administration would be hard pressed to say they shouldn't, especially in light of the position it has been taking recently. But it would have to insist on a clear understanding on the part of the P–5 members that UN verification activities must be carried out in strict accordance with existing UN Security Council resolutions rather than on the basis of any new ground rules that Iraq could try to establish. And the P–5 should agree that there would be a firm unified response in the face of any Iraqi failure to give its full cooperation to the inspectors.

In conclusion, Mr. Chairman, as President Bush warned in discussing the growing WMD threat, time is not on our side. This is especially true in the case of Iraq. We should, therefore, take interim steps to contain the threat, but such steps, even if successful, would only buy us some additional time. We need to use that time to prepare an effective strategy for the only approach that can be expected to stop WMD programs and prevent them from regenerating, and that is to change the current regime in Baghdad.

Thank you, Mr. Chairman.

Senator AKAKA. Thank you very much, Mr. Einhorn, for your insights.

Dr. Kay, we invite you to give your statement.

TESTIMONY OF DAVID A. KAY,[1] VICE PRESIDENT, SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Mr. KAY. Thank you, Mr. Chairman, and I will quickly summarize my statement and, with your permission, enter the full statement into the record.

It has been more than a decade that the international community has confronted, and unsuccessfully, a long-term solution to an Iraq led by Saddam Hussein and armed with WMD. In fact, as I say that statement, I realize that it has been almost 11 years to the day since I first led an inspection team into Iraq and spent 2 weeks running through the country to finally identify a part of their nuclear weapons program. My appreciation for the movie "Groundhog Day" is much less, although my understanding of it is much greater as a result of those 11 years that I did not expect this problem to be around.

I think in trying to understand where we are today with regard to Saddam's nuclear program, it is important to understand the assumptions that proved to be false that we based UNSCOM's inspections on and, indeed, I would say U.S. policy at the beginning.

The first assumption was that Saddam's rule would not survive the disasters suffered by Iraq as a result of its invasion of Kuwait and the Gulf War. It was hard to imagine, certainly for those of us coming from democratically ruled countries, that any regime could survive such a disastrous policy.

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[1] The prepared statement of Mr. Kay appears in the Appendix on page 43.

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Second was that Iraq's WMD capacities were not extensive nor really significantly indigenous. I still remember the intelligence briefs I received as we were ending up the nuclear side of the inspection about what Iraq had. It was a program that had spent a lot of money, had accomplished very little, and most of which had been taken care of anyway by the air campaign.

Third, it was a post-Saddam Iraq—and that was the assumption of most people as we entered the inspection—that a post-Saddam Iraq would declare to UNSCOM all of its WMD capacities.

And, fourth, that UNSCOM would be able to "destroy, remove, or render harmless" in terms of the UN resolution Iraq's WMD capacity, leaving an Iraq that did not have such a capacity. And the assumption going in was this was probably a 90-day effort or, at most, 6 to 9 months. How wrong assumptions can be.

Let me just dwell on one of those assumptions that is still bedeviling us today. We did not understand the impact that the discovery of such a gigantic spread and indigenous WMD program would have on our future efforts to, in fact, contain that program. Iraq's nuclear program—and it is true of the BW, chemical, and missile program as well—spanned over a decade, spent over $20 billion, employed 40,000 Iraqis, and accomplished much—all of the technical steps on these programs are well understood, and most of the production steps where the real problems arose, in fact, had been overcome.

Iraq is not like a Libya. Iraq that we face today is much more like Germany at the end of the First World War under a Versailles regime and inspectors. It is an indigenous capability.

The capability to produce weapons of mass destruction that arises from a national program on this scale is one that to eliminate by inspection is, quite frankly, a fool's errand. We have underestimated entirely what inspections—we have overestimated at the beginning what inspections could accomplish. And let me hesitate—stop here to say inspectors accomplished a great deal. In the nuclear area, for example, UN inspections destroyed more nuclear facilities than were destroyed by the coalition air force during the Gulf War, simply because we were able to find facilities that were not known before.

But to compress a lot of history, in December 1998, when the United States conducted military actions against Iraq, all inspections ended. It took a year later to bury UNSCOM, but, quite frankly, inspections had been net down to an almost insignificant point by 1996 and 1997. The ending of UNSCOM was almost a humanitarian effort.

The regime that replaced UNSCOM, UNMOVIC, which it took a year to negotiate, was to be more acceptable to Iraq, led by a commissioner that Iraq and Iraq sympathizers on the Security Council would find acceptable. Indeed, the Secretary-General's first choice for that job was rejected by the Russians and the French.

Even under these more favorable inspection regimes, Iraq has still refused to this day to allow inspections into Iraq.

Mr. Chairman, you posed a series of what I think are critical questions about the Iraqi nuclear program, where it is today, what impact UN sanctions have had on it, and what are the options for dealing with this in the future. Let me try to just quickly give you

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my views on that, and I think the first and most serious point about this is to recognize that this program is an indigenous program. It is a program where the Iraqis understand the technology of producing nuclear weapons.

It has engaged not only in the technical side, but Iraq really beginning in the mid-1980's engaged in a major effort of deception and denial, of hiding their facilities, of understanding them. They certainly studied our inspection techniques well enough to know how we proceed and to compensate for that.

When we got close to penetrating their web of deceptions, they resorted to physical force and denial. I had the fortunate privilege, I guess one would say, of spending 4 days in an Iraqi parking lot as a guest of the state, not a hostage, because we got close to discovering and, in fact, did seize the basic documentation on the Iraqi nuclear program. It is a layered program of protection, and Iraq has learned much more about that.

Let me try, based on the very sketchy insights we have in the more than 3 years since inspections ended and limited number of defectors, try to give you my view of where that program is today.

Iraq's pre-Gulf War program ensured that if they had fissile material of a sufficient quantity and quality, they would today be able to fabricate a nuclear device. Certainly as Senator Domenici understands because of the state he represents, the hard nut for any nuclear wannabe to crack is the acquisition of fissile material. Once you have that, Iraq knows the rest of the fabrication steps.

The German intelligence agency publicly—and it is always easier to cite a foreign intelligence service than your own, for those of us who continue to do professional work. The Germans last year cited that because of major Iraqi procurement efforts that were continuing at least through the end of last year, in the worst case, without external assistance or new fissile material, Iraq would have nuclear weapons in 3 to 6 years.

Second, you can have great confidence that Iraq will, in the 3 years since inspectors were in, have carried out a major deception campaign of hiding and scattering key nuclear facilities. I am somewhat more fortunate than my colleagues. It is a little harder to shield nuclear and hide nuclear facilities, but not impossible, and we have real experience with the Iraqis on that.

Third, Iraq understands the methods used by inspectors and how we operated, and they also understand the methods used by national intelligence services. These are very smart, determined adversaries.

I had the great privilege, when I wasn't sleeping in the parking lot, of having a hotel room in Baghdad that had 24-hour video and audio monitoring. They looked at how we did—they use local Iraqis to penetrate it. They penetrated the inspection mechanism itself.

The next is that Iraq has not abandoned its efforts to acquire WMD. Recent defectors stated that as recently as August 1998—that is while inspections were still going on—a formal order was issued to proceed with the nuclear program at full blast.

Finally, economic sanctions no longer play any significant role in limiting Baghdad's nuclear ambitions. Oil prices have gone up. Smuggling methods have increased. And in any case, Saddam gives a priority to his WMD program. If the Iraqi population has to do

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without medicine, you can be quite sure the WMD program does not starve for material because of a lack of money.

Let me turn to the attitude—and in many ways for me this is, I think, the most regrettable one because I think it shapes our possible actions and certainly shapes my negative prospects on inspection. And that is the attitude of states in the region and our European allies towards Iraq's WMD ambition.

By 1996, the real aim of the inspections—that is, eliminating Iraq's WMD capacity and installing some long-term monitoring capability—had started to slide away in the face of absolute Iraqi determination but, more importantly, an attitude among regional and European allies of the United States that this was no longer as important as short-term economic and political gain. And I am particularly speaking of the attitude of the Russians and the French.

We also have to credit—and it is a discredit on ourselves, I must say—a very successful Iraqi propaganda campaign which convinced most of the world's population, including many in the United States, that sanctions and UNSCOM inspections were responsible for the devastation, health- and welfare-wise, of the Iraqi population. That is simply not the case. The starving and lack of medicine of the Iraqi population was a result of Saddam's determination to use the money available for his weapons of mass destruction program. It was not the result of economic sanctions. And though, as you may tell, I believe this with vigor, I think it is largely irrelevant. They won the propaganda game, and Americans as well as Europeans and many in the Middle East believe we are responsible for that suffering.

Senator DOMENICI. Mr. Chairman, might I ask Dr. Kay if I might have 1 minute to comment? I have to be at another meeting.

Senator AKAKA. Certainly.

Senator DOMENICI. Thank you very much, Mr. Chairman. I would ask that my statement be made a part of the record as if read.

Senator AKAKA. Without objection, it will be included in the record.

OPENING STATEMENT OF SENATOR DOMENICI

Senator DOMENICI. I want to comment to you and Senator Thompson with reference to this hearing, I only wish that millions of Americans would get to hear the testimony we are hearing here today. There are so many that listen to our President talk about Iraq and what must happen sooner or later that have no idea what is being said here as the reality in Iraq with reference to weapons of mass destruction and what they are doing to make sure that they reach the right level to continue to be the very major nuisance that they are. I think the hearings are very worthwhile, and I thank you for them and thank the witnesses. Thank you, Dr. Kay.

[The prepared statement of Senator Domenici follows:]

PREPARED STATEMENT OF SENATOR DOMENICI

I would like to welcome each of the panelists and then make just a few brief remarks about today's subject matter.

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As we all know, we have been playing a game of cat and mouse with Iraq since the end of the Gulf War in which Saddam continually sacrifices the welfare of the Iraqi people for his own hunger to possess weapons of mass destruction.

While the comprehensive containment approach we have taken with coalition partners has largely kept Saddam at bay, we remain uncertain of the state of Iraq's weapons programs as a result of his expelling UNSCOM inspectors in 1998.

Since the terrorist attacks of last fall, we are more alert than ever as to the lack of any inhibitions certain factions have about using any means necessary to strike at the heart of United States security.

Clearly, Iraq is such a faction. Saddam has used chemical weapons on his own people and, given the opportunity, he would use any weapon of mass destruction against us or our allies.

The time has come for us to take this reality very seriously and formulate a policy that will unravel the mystery of the current status of Iraq's weapons programs. Simultaneously, we must implement concrete means for dealing with the answers we find.

I look forward to hearing from each of you and I hope you can shed light on the various options we have for dealing with this real threat.

Thank you.

Senator AKAKA. Thank you. You may proceed, Dr. Kay.

Mr. KAY. We today face a situation where we are left with allies in the region that really lack sufficient military power to stand up to a rearmed Iraq and are increasingly unwilling to provide us with the political and operational support necessary to directly confront Iraq.

The same splintering of the alliance has occurred among our European allies. The French are no longer willing partners. The Russians can no longer be bribed or coerced into cooperation. And, finally, it is a psychological war that we have lost.

What choices do we have left? And I know that is what you, Mr. Chairman, challenged us all to think about. Let me say there are few choices. They are mostly bad.

The easy solutions that we hear talked about—support the opposition, contain, as we did the Soviets, or the statement of the Secretary-General of the UN in 1998, "I can do business with Saddam"—these are expensive, risky, and, at best, only partial answers.

The reintroduction of inspectors into Iraq, now under the guise of UNMOVIC, I am afraid will result not in constraining the Iraq WMD program but, in fact, freeing them of all restraint. I think it is underestimated by people who have not served as inspectors in Iraq, the difficulty of re-baselining a program that has been free of inspection for more than 3 years. It is a significant technical challenge that can only be done if you have the unrestricted right to go anywhere, anytime, with anything, and the cooperation of the world's national intelligence establishments to help you. I do not think that is the situation that we will find if UNMOVIC inspectors were let in.

I think the Iraqis have, in fact, convinced a sufficient number of the permanent members of the Security Council that the purpose of inspection is to quickly declare compliance and allow Iraq to be free of sanctions.

I am absolutely convinced that if the inspectors indeed were to be given the support and were to probe Iraq, first of all, they would face this huge web of deception they would have to deal with; and if they got close to the truth, they again would meet physical restraint, just like all of their colleagues who for 10 years conducted

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inspections into Iraq. I am seriously worried, however, that we could be faced with a judgment: Iraq has allowed inspectors back in, let's get off their back. And that, let me remind you of the German estimate: 3 to 6 years, the worst case, Iraq rearmed with nuclear weapons.

The opposition. The best hope of the opposition in Iraq was, quite frankly, in 1991 at the end of the Gulf War. We stood aside and we allowed many brave Iraqis to be slaughtered by Saddam's force. There may have been a chance in 1995, early 1996, when major coup attempts were attempted. There, again, the U.S. attitude was, at best, not supportive.

Indeed, as I look at the history of U.S. support for democratic opposition around the world, I am reminded of nothing more than the dance of the black widow spider: Attractive, but ultimately fatal to the male.

I don't think it is true that we are genetically incapable of helping oppositions effectively. It is just that we are so inept at it, the genetic pool of opposition is likely to be drained before we get the lesson right. I do not view the opposition as likely to play a major role in the goal of regime change.

Containment I think has a nice ring. It worked in the case of the Soviet Union. It took 40 years, well over $20 billion, and reshaping European societies to do it. I don't think those conditions exist in the Middle East.

I am afraid there are no alternatives but a U.S.-led—and U.S.-led means maybe the U.S. leading itself and hopefully our stalwart British allies—to use military force to end Saddam's rule in Iraq. And let me be clear: As long as Saddam is in power, the WMD aspirations and capabilities of Iraq will continue to develop. And while you referred to it, we largely have not today in our testimony referred to the issue of Iran. An Iraq that is continuing to seek WMD ensures that there will be an Iran seeking to acquire WMD. And that makes that territory the most dangerous spot in the world.

Let me conclude, Mr. Chairman, by saying I think Iraq is unfortunately of that class of problems where all the easy answers seem to have been in the past and all we are left in near-term options that aren't really answers. Now, because I was there in the beginning, let me tell you, the answers that were there were not easy either, and we have forgotten how difficult they were. But there is no alternative to the replacement of Saddam and the regime if you want to deal with the WMD problem before, in fact, WMD weapons are used on the United States and our allies in the Gulf.

Thank you very much, Mr. Chairman.

Senator AKAKA. Thank you for your strong statement. Dr. Spertzel.

TESTIMONY OF RICHARD O. SPERTZEL,[1] FORMER HEAD OF UN SPECIAL COMMISSION (UNSCOM) BIOLOGICAL WEAPONS INSPECTION, AND FORMER DEPUTY COMMANDER, USAMRIID

Mr. SPERTZEL. Thank you, Mr. Chairman. I would like to start out by saying that I endorse 100 percent what Dr. Kay has just

[1] The prepared statement of Mr. Spertzel appears in the Appendix on page 48.

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said. I have not addressed some of those particulars because of time constraints, but I could not have said it as well as he did. They are absolutely true when it comes to the whole issue of sanctions and inspections and dealing with Iraq.

Iraq's biological weapons program was among the most secretive of the weapons of mass destruction programs. Its BW program began in the early 1970's under the auspices of Iraq's intelligence service and is probably presently under the special security organization. From its inception, Iraq's BW program included both military and terrorist application. The terrorist component of Iraq's program was not actively pursued by the Special Commission.

In 1991, Iraq's BW program was in an accelerating expansion phase and was not obliterated, as has been stated, by Iraq, including a recent submission by Iraq to the UN Security Council. Its bacterial BW capabilities were well established, including its ability for production, concentration, spray drying, and delivery to produce a readily dispersable, small-particle aerosol.

Iraq had demonstrated an anti-crop and a mycotoxin capability and was developing a viral capability. Iraq was developing both short-range and intermediate-range weapons delivery capability for biological agents, including, it would appear, a Supergun.

Agents included lethal, incapacitating, and agricultural biological warfare agents. Iraq's interest in aflatoxin was in its long-term carcinogenic and liver toxicity effect rather than any short-term effects. One can only wonder what was the intended target population.

Field tests encompassed point source releases, small-area contamination, and large-scale line source release and were evaluated both for tactical and strategic use. The weapons and range of agents considered provided Iraq with a variety of options for their use.

During the inspection and monitoring regime, Iraq continued to expand its BW capabilities by acquiring supplies and equipment that would enhance its BW capability. This came about by the continued import of equipment and supplies, including a 5,000-liter fermentation plant that we have no idea where it is located in Iraq.

Iraq also developed the capability to produce critical production equipment and supplies such as standardized growth media of direct importance to its BW program, as well as fermenters, spray dryers, and centrifuges. This is the indigenous capability that Dr. Kay talked about.

Iraq's experienced senior BW personnel remained intact as a unit throughout the inspection period. Iraq still retains the necessary personnel, equipment, and supplies to have an expanded capability. We were only able to destroy the equipment that we could identify was definitely part of the past program. That allowed such things as a critical spray dryer and multiple large fermenters to still remain in Iraq.

Iraq's program can be expected to be more advanced than in 1990, particularly its viral and genetic engineering capability, because the evidence suggests that those two efforts continued to grow in the 1990's. There is no doubt that Iraq has a much stronger BW program today than it had in 1990. And perhaps of most concern would be such agents as anthrax and tularemia bacteria

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and smallpox virus, as well as anti-animal and anti-crop agents. We cannot forget the economic devastation that could be wreaked upon the United States with the import of anti-crop and anti-animal agents.

Iraq clearly places a very high priority on its BW program, not only the monetary cost but they considered it was vital to their national security and, perhaps more important, the security of the regime.

A senior Iraqi official stated that BW was perceived as a power weapon and would influence its neighbors to see things Iraq's way. Senior Iraqi officials have repeatedly stated that BW was a vital armament step, at least until it had a fully developed nuclear capability.

The continued Iraqi interest in BW terrorist research and development would undoubtedly evolve to meet changing situations and can be expected to be retained even after the development of its nuclear capability.

The opinion by international experts after Iraq's program was disclosed has not significantly changed. But at the political-diplomatic level, some countries' experts' concerns were not reflected in the verbiage and actions by the respective leaders and diplomats that Dr. Kay touched upon.

In spite of the lip service that is given to getting inspectors back into Iraq, there does not seem to be any material change in the disparity between the experts' concern and the diplomatic imperatives and, consequently, in the support that an inspection regime might expect from P–5 members.

Most of the proposals for getting inspectors back into Iraq are based on the premise that any inspectors are better than none. To be blunt, that is pure garbage, just an illusion of inspections.

Iraq's past behavior in restricting monitoring and inspectors' activities is likely to be repeated. Such limitations would make a monitoring regime a farce, which would be worse than no inspectors at all, because it would provide an inappropriate illusion of compliance to the world community.

I was told by a senior diplomat in 1998 that it would not matter if a BW-laden Al Hussein warhead were placed on the Security Council table. It would not change opinions about lifting sanctions. He added further, if the CW and missile files are closed, the world will not care about biology.

It appears to me that this may still be the viewpoint of several nations. This attitude does not address the terrorist threat posed by Iraq's WMD programs. One would think after September 11 a more realistic appraisal of Iraq's capability and willingness to use WMD as terrorist weapons would be forthcoming. The public rhetoric is not encouraging.

Iraq's BW component from its inception, I would like to remind this panel, included a terrorist component. Sanctions had very little impact on the maintenance and expansion of Iraq's BW capability. New equipment and supplies were continuously being seen at sites under monitoring by both resident as well as non-resident BW inspection teams. Such items should have been declared to the Special Commission but were not.

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Items included bacterial growth medium, state-of-the-art general laboratory equipment, and genetic engineering equipment and supplies, including the appropriate restriction enzymes. Large-volume production and safety equipment were imported, but were never seen by the Special Commission.

Critical BW supplies and equipment are not difficult to smuggle into a country where the country is an active participant.

I would not expect sanctions, smart or otherwise, to have any significant deterrent to Iraq's continued development of its BW program. I do not expect much success from the return of inspectors to Iraq. The success or failure of inspections and monitoring depends too much on uncontrollable elements. What will be the conditions under which the inspectors return? What support will the inspection regime have given Iraq's recalcitrance and the likely lack of unanimous support in the UN Security Council?

Will Iraq truly cooperate and reveal or destroy all its BW activity? Or will Iraq continue its established pattern of deception, denial, and concealment? And like Dr. Kay, I expect the latter to be the case.

Implementation and monitoring was predicated on Iraq fully and willingly cooperating with UNSCOM—that did not happen; on Iraq providing full and complete disclosure of its proscribed BW program—that did not happen; and on Iraq making full and accurate disclosure of all facilities containing dual-use equipment and capability—that did not happen. It is most unlikely that Iraq will now be any more cooperative.

A fundamental requirement for monitoring to be effective would be full support by the UN Security Council. Even under the best of circumstances, it would be almost impossible to detect small-scale research, development, and production of BW agents by a state determined to conduct such activities. Should Iraq use mobile production facilities, several additional magnitudes of difficulties would exist. Such laboratories were proposed by one of the senior Iraqi officials as having been considered in 1988. It has been recently reported by the German intelligence service that Iraq also possesses such mobile laboratories for their BW now.

Without a sense of certainty by Iraq that there would be severe repercussions by a united Security Council, monitoring does not have a chance of true success. For any chance to succeed, there must be a harsh penalty for non-compliance that is supported in advance by all P–5 members of the Security Council. Should Iraq be allowed to retain its BW and other weapons of mass destruction programs, it will remain a menace not only to its neighbors but to the world at large because of the concomitant instability it would create in the region. The regime is unpredictable. The Gulf States would need to judge all their actions in light of the Iraqi threat.

Iraq is already openly supporting the Palestinians. Would Iraq risk using WMD on Israel? If this happened, what would be the repercussions from such a foolhardy action? Iraq's bioterrorism potential poses an enormous risk to any of its perceived enemies. While much attention is focused on bioterrorism against people, the economic devastation that could be wreaked on the food animal or food crop industry may be far greater in the long-term effect. Should

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Iraq use its BW expertise in bioterrorist activities, it may be impossible to find a smoking gun that would implicate Iraq.

Thank you, Mr. Chairman.

Senator AKAKA. I want to thank you for your statements and for the work you have done for our country to help stem the spread of weapons of mass destruction around the world. Thank you for that.

We have some questions for you. My first question is to Dr. Einhorn. Both you and Dr. Kay state that the key obstacle to Iraq constructing a workable nuclear device is access to bomb-grade nuclear materials such as highly enriched uranium. The National Intelligence Council in its annual report to Congress gave a strong warning that, "Weapons-grade and weapons-usable nuclear materials have been stolen from some Russian institutes."

Is there any indication that Iraq might have been the destination for any stolen material from the former Soviet Union?

Mr. EINHORN. Mr. Chairman, I think we just don't know the answer to that question. Is it possible that the Iraqis would be interested—well, it is certain that Iraqis would be interested in obtaining that material. Could they have? It is possible. I am not aware of any hard evidence that they have succeeded in obtaining fissile material.

Senator AKAKA. Dr. Kay, since 1997, the International Atomic Energy Agency has been reporting that Iraq no longer has a nuclear weapons program. How did the agency arrive at that assessment? And do you agree with it?

Mr. KAY. Well, the reports I am familiar with are the result of routine safeguard inspections which go to known sites that were known before the war, and what they are very careful these days—they were not always before the war—to report is that, of what they observe, they do not see any signs. The IAEA, to the best of my knowledge, has made no general—has, in fact, been very careful not to make a general characterization of whether there is something there.

The continuing inspections the IAEA conducts in Iraq today have nothing to do with the arms control inspections required under the ceasefire resolution that ended the Gulf War.

Senator AKAKA. Dr. Kay and Dr. Spertzel, Iraq and UN officials will meet next week to discuss inspections. In the past, Iraq declared certain facilities off limits to inspections. If inspections are restarted, how can we be sure that Iraq will not revert to past actions? Previously, some observers suggested the United States strike Iraqi facilities that Iraq refused to allow to be inspected. Would such a policy be effective in supplementing any new inspection policy?

Mr. KAY. Let me just take a crack at the start of it. I absolutely believe if inspections were to begin, nothing is off the table—should be off the table. Am I confident that will be the ground rules? No, I am not.

With regard to the use of military force as a means of striking facilities that they deny access, I confess at times in confrontations with Iraq I have raised that prospect. Do I believe that is the appropriate action now? Absolutely not.

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The only way to end the Iraq WMD program is to end the rule of Saddam Hussein. The appropriate application of military force is to achieve a regime change. You will never accomplish limiting a WMD program by striking facilities, deception, denial, and all. And I must say I do not think time is on our side in this regard. I am convinced that if Saddam believes we are going to end his rule, he will use WMD. I do not see any advantage to giving him additional time to prepare for that use of WMD against U.S. troops.

Senator AKAKA. Dr. Spertzel.

Mr. SPERTZEL. I pretty much agree with what Dr. Kay said. I believe Iraq would actually set up a confrontation just to have the United States—if they thought the United States would do it, end up bombing a nursery school. They have been known to do that in the past. There is no reason to believe that they would do otherwise in the future.

Furthermore, this requires, again, the UNMOVIC knowing that a site needs to be inspected. And I don't see that happening.

Senator AKAKA. Dr. Spertzel, UN Resolution 1284 states that the new UN inspection team will be staffed by mostly new and, therefore, inexperienced personnel. Under these conditions, how effective and how reliable do you think the new team's findings will be?

Mr. SPERTZEL. The new team's—I should start out by saying that I helped to teach the first team, and it is a question mark how new that first group of trainees were, because I knew them all on a first-name basis.

But having said that, they have received additional new ones, and they have gone through extensive training. The value of that training to the real situation in Iraq, I think, is pretty much of a moot point.

New inspectors are going to fumble in the beginning. I think I can illustrate this best by stating what happened on one of our inspection teams, when we got out of Iraq and a new member who had been to Iraq for the first time said, "Why were you so tough as a team on Iraq? They sounded perfectly plausible to me, the explanations they were giving."

We had this same individual on another inspection about 2 months later, and about halfway into the second day, he turned to me and said, "Now I know why you were so tough the first time."

It takes that learning curve that is only gained by actually on-the-ground doing it. So the simple answer to your question is, in the beginning it is going to be a tough job for them. This comes back to a statement that Dr. Kay made about rebaselining. I don't think they can do it in 6 to 9 months' time.

Senator AKAKA. Mr. Einhorn, there have been reports about Iraq developing an unmanned aerial vehicle program. How concerned should we be at this time about this program, especially as it relates to biological or chemical weapon agent delivery?

Mr. EINHORN. Mr. Chairman, I think we should be concerned. We are aware that the Iraqis have taken trainer aircraft and sought to adapt them for unmanned use. I believe they have had special modified spray tanks that they have tried to hook up to such a vehicle. And the assumption is that this was for delivery of

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chemical or biological weapons. I think we ought to be concerned about that program.

Mr. SPERTZEL. Could I comment on that, sir?

Senator AKAKA. Dr. Spertzel.

Mr. SPERTZEL. I would like to add that, of course, Iraq had such a program which they claim was for bio, but it appears it was actually for bio and chemical delivery both, and that was with converting a MiG to an unmanned vehicle.

The continuation with the trainer aircraft that was mentioned just a few minutes ago involved the same Iraqi experts, engineering experts, as those involved in adapting both the drop tank as well as attempts to modify a MiG fighter to be an unmanned aircraft. So, absolutely, there are major reasons for being concerned about the development of such a weapons delivery system.

Senator AKAKA. At this time I would like to call on Senator Thompson for his questions.

Senator THOMPSON. Thank you, Mr. Chairman.

Gentlemen, let me ask you to—after stating that Saddam is unpredictable and sometimes irrational, I am going to ask you to put yourself in his shoes, and even though there seems to be a rough sense of logic, Saddam logic, anyway, that pertains sometimes—and you all have watched him for a long time—and ask you what you think he is thinking about this situation right now.

In light of the fact, if you agree, as I do—and I think with most all of you—that the worst thing that could happen is for us to get back in there under some idea that things are going to be different, yes, we can slow him down a little bit, but he knows us better, he is better at deception even than he was before. He has gone to school on us the first time. He knows that ultimately he can count on his friends in the UN Security Council if things get tough or when he decides to shut things down. Then the battle becomes over which building are you going to be able to go into and very narrow issues. Surely this is not worth going to war over, we will hear over and over again. I believe this is the case. If it is the case, why would not Saddam—and I hold my breath hoping he will not allow inspectors back in there. But why wouldn't he? Does he feel so secure that he does not feel any necessity to make any movement even to engage us in this charade and cat-and-mouse game, which you could have, it seems like, just like that and buy himself a year or more if he wanted to, and undergo a little aggravation, but almost guarantee, it would seem, and—well, hopefully not guarantee, but lead him to think that with all of the support he would get in the region, with the European support and all of that, he could be assured that there would be no strike against him.

Is he so secure that he doesn't feel any necessity to engage us in what I believe would certainly inure to his benefit in the short term? Dr. Kay, can you comment on that?

Mr. KAY. Senator Thompson, first of all, let me say I think the first reason he will not do this is he has some unsatisfactory experience with inspectors from his point of view. I remember—and I had the dubious pleasure of leading three of the more confrontational inspections with Iraq—that at the end I had an Iraqi Foreign Minister tell me that if we had understood that you

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were not going to behave like the IAEA did before the war and a UN diplomat, we would never have agreed to this.

With all the troubles inspectors had, people like Dr. Spertzel and the other teams unmasked a program that was unknown to national intelligence officials in the scope, depth, and degree that the inspectors unmasked. So he has a positive hate relationship with regard to the idea.

Second, inspectors were always a political threat to the regime. We represented a failure, a visible failure running around Baghdad in our white buses and our white Land Rovers that he—although he can torture and cow the rest of Iraq into submission, here are individuals who were behaving like they were immune to Saddam's threat. For a totalitarian dictatorship, that is a virus that you do not want to get started. It starts people inside your own regime thinking about changes.

And, finally, I must say, I fear that he has lost his fear of the United States. The period in which one believed that six or seven Cruise missiles fired into an empty building at 3 a.m. in the morning was an appropriate response for an assassination attempt on a former President of the United States is not one that engenders great fear in a sadistic, fanatical dictator like Saddam.

So those are my reasons. But I must say I have the same worry every morning as you.

Senator THOMPSON. Dr. Spertzel, let me ask you to comment on that and, in addition, whether or not you think if Saddam was convinced that we were about to strike him in a significant way or invade him, then do you think his calculations would change? In other words, if he comes to the point of agreeing for an inspection regime of some kind, does that mean he is convinced that we are about to do that?

Mr. SPERTZEL. Yes, you would have found that would have been part of my response, is that I don't think he is yet convinced that the United States will act unilaterally in opposition to the Europeans as well as the other Middle Eastern countries. And certainly those countries and the Europeans are giving ample reason to believe that he may be right.

Now, further indications of that coming into his discussions with Kofi Annan is that the head of the Iraqi Ba'th Party in the last 4 days made a statement in a speech in Baghdad in which he commented something to the effect that the United States was the real terrorist Nation because it prevented Iraq from reclaiming its rightful territory integrity in 1990, i.e., the march on to Kuwait.

Another senior official, an Iraq Foreign Minister, also stated that, yes, they are flexible, but inspections would have to include lifting of sanctions and inspections for weapons of mass destruction of all countries in the Middle Eastern region—clearly an indication that nothing has changed in Iraq over the last several months.

Senator THOMPSON. Mr. Einhorn, would you care to comment on this?

Mr. EINHORN. I don't think we can really predict what Saddam Hussein would do under extreme duress. I would tend to doubt that he is going to agree to admit the inspectors. He knows, because he knows his own behavior, that sooner or later if the inspectors are back, there will be a confrontation. Things may go smooth-

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ly for a few weeks or months, but sooner or later, I think the inspectors will be prying, will be demanding and so forth, and Iraq will not be cooperative, and there will be another confrontation. And Saddam recognizes that will be used by the administration as a very good reason to use military force to try to resolve the problem. So he can look down the road and see that this is not going to lead anywhere very——

Senator THOMPSON. Even if we can't get unanimity in the UN Security Council.

Mr. EINHORN. I think he knows—he may be confident, as Dr. Spertzel says, that the Bush Administration will be dissuaded by some of the concerns of Europeans and so forth. He may feel that now. But I think as time goes on, he will recognize that this administration is committed to move forward, and that will put him eventually in a pretty tight spot. And I wouldn't rule out his making certain conditional offers to admit inspectors. I don't think he is there yet, but I think he will make those offers.

Senator THOMPSON. That is very interesting.

Could I ask the indulgence of my colleagues for one more quick question? This is the idea, Dr. Kay, that you alluded to or the point you made concerning the public relations battle that I believe we are losing, if not lost, in terms of the starving children. I have had people from Tennessee come up and say that they have talked to Iranian officials. Some of them have been down there and, you know, pointed out the effects of what we are doing are having on the poor people down there. Is there any objective thing that we can point to? Is the oil-for-food account set aside with money in it under the auspices of the United Nations that you can point to and say here is $1 billion he is not using? Obviously we know he is smuggling oil in and getting a lot of money from that. I mean, maybe that is a little bit more difficult for people to buy. But what do we do about that? That is the mantra that you hear all the time now in terms of our terrorist activities.

Mr. KAY. Senator, it is a very sore point. There are factual things you can point to. The program was never—the limitation of imports never applied to food and medicine. In fact, sometimes I resort to pointing out what is actually imported—a liposuction machine. One would not think that a liposuction machine in Iraq would be a high-priority import, although if you look at some senior Iraqi officials, you can understand their desire for it. [Laughter.]

Mr. KAY. But, look, I confess, Senator Thompson, this is a battle I think we didn't fight. We certainly at least didn't fight it well. It is a battle that is lost. I think we now need to focus on the main issue, that is, getting rid of the regime. The thing that will improve the health and well-being of Iraqis today more than anything else is the removal of Saddam Hussein and his family from power.

Senator THOMPSON. Mr. Einhorn.

Mr. EINHORN. Yes, Senator Thompson, there are some objective things you can point to. You are correct, the Oil-for-Food Program allows Iraq to export oil, but the proceeds must go into a UN escrow account, and those funds are to be used for the civilian, humanitarian needs of the Iraqi people.

The balances have remained very high. At the beginning, the Iraqis drew down those funds for civilian products. Now they have

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let those funds sit in the escrow account rather than use those funds for the needs of the Iraqi people. I don't have exactly the numbers in front of me, but we were impressed—when I was in government, I was quite impressed with the very cynical nature of the Iraqi approach to this problem where they continued to complain publicly about the effects of the sanctions on the Iraqi public, but they failed to use the funds that they could draw upon to meet those needs.

But I agree with the other witnesses. We have lost this propaganda battle. It is very hard to change minds by showing them this data.

Senator THOMPSON. Dr. Spertzel.

Mr. SPERTZEL. Yes, I agree with what has been said. I have just two comments to make, because there are points of severe irritation with me, and that is the business of medicines and food to Iraq. At a time when Iraq was making a great deal of progress in winning this public relations battle, the issue was settling around medicines, vaccines for children. Well, the bio people, we monitored the central distribution point for biologicals to the medical community, and we were watching donated medicines and vaccines for children sitting on the shelves going out of date, intentionally not being distributed. As inspectors, we couldn't do anything about it. But it became a major sore point with us.

The other one has to do with food. Our inspectors would buy food from the local market, and 1 day they went out to buy and there was nothing on the shelves. Everything was gone. And they asked why, and the person, the shop owner said, "Tell me what you want. I'll get it for you. We were instructed to clear everything off our shelves because there were some foreign newsmen coming today."

Senator THOMPSON. Thank you, Mr. Chairman.

Senator AKAKA. Thank you for your questions and the responses we received. Senator Cochran.

OPENING STATEMENT OF SENATOR COCHRAN

Senator COCHRAN. Mr. Chairman, we obviously are confronted with a very troubling situation in Iraq. I have made some notes for an opening statement which I will ask be printed in the record at this point, with your permission.

Senator AKAKA. Without objection, it will be printed in the record.

[The prepared statement of Senator Cochran follows:]

OPENING STATEMENT OF SENATOR COCHRAN

Mr. Chairman, we obviously are confronted with a very troubling situation in Iraq. At the end of the Gulf War, UN Resolution 687 required Iraq to "unconditionally accept the destruction, removal, or rendering harmless" of its weapons of mass destruction. But, here we are, 11 years later and we have no convincing evidence that these weapons have been destroyed, removed, or rendered harmless.

Saddam Hussein has kept UN inspectors out of Iraq since December of 1998. Now, following pressure from the Bush Administration, Iraq's Foreign Minister and the United Nations Secretary General are going to meet next week to discuss the resumption of UN inspections in Iraq.

I'm concerned that even if Saddam Hussein allows UN inspection, he will not cooperate with them. I'm also convinced sanctions have not achieved their goals. We may be running out of time and options; so we appreciate the opportunity to have the benefit of the thoughts and suggestions of these distinguished witnesses.

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Senator COCHRAN. If I could ask the witnesses about the UN inspection situation, the key to success, as I understand, for these UN inspections has always been the support of the international community. We can't just do this by ourselves and make it work. We especially need the cooperation of the countries that make up the United Nations Security Council. But there seems to have been considerable hesitancy among some of these members in creating this new inspection regime, the UNMOVIC regime. Several countries, including France and Russia, didn't vote, didn't actively support this initiative. Can we expect these UN inspections to have any chance of success without the cooperation of our allies and friends?

Mr. SPERTZEL. At the risk of being undiplomatic, I will take that one on. Without the full support of the P–5 members—France, Russia, China, United States, and U.K.—the inspection system doesn't have a chance, no matter what their authority might be in Iraq. And I have seen nothing that would suggest any change in the attitude and the expressions being stated publicly in the media right now by a couple of those countries that would indicate there is going to be any change in their support.

Yes, France and Russia abstained in that vote because it did not meet Iraq's satisfaction. Iraq was actively encouraging them, requesting and pleading with them, to veto it, and they compromised by abstaining. I don't see anything that has changed.

Senator COCHRAN. Mr. Einhorn.

Mr. EINHORN. Let me go one better than that. Dr. Spertzel says that without their support the P–5 unified, the inspections can't succeed. If success means disarming Iraq and forcing compliance, even with the support, the unified support of the Security Council, they won't succeed, because it is very difficult to compel compliance, and especially with this regime.

So if one sets that high standard—and we must—then as all the witnesses have said, the only way of compelling compliance is to change the regime and get a regime that is prepared to comply. I think that is the answer.

But I would say with strong support by the Security Council, inspectors can do some useful things, perhaps only for a short period of time, before confrontation sets in again.

I asked a number of my friends in the intelligence community what they know about Iraq now and what they feel about the inspectors not being there. And they are losing touch. They used to have a feel for what was going on in Iraq. They are losing that feel now.

I asked them, would you like to see the inspectors back on the ground?, recognizing that the Iraqis are not going to give them access to anything incriminating. They said, "We would still like them there. We could get some useful information. It would update us on a number of useful things, certain suspicious facilities we could at least get access to—that is, the UN inspectors could get access to those facilities, and resolve certain doubts." But they would have no illusions that the inspectors would ever be able to find what the Iraqis have worked hard to conceal. So there are limited things the inspectors can do, but if success is disarming Iraq, forcing compliance, they can't do that.

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Senator COCHRAN. Dr. Kay.

Mr. KAY. Senator Cochran, could I give you a very practical answer? Because I failed Diplomacy 101.

Talking about support from the Security Council in broad terms does not get you very far when you are talking about inspectors. The Iraqis will manage the individual confrontations at points where much of the world that is not focused on disarming Iraq—they are focused on getting rid of sanctions and getting on with business—will not understand.

I led an inspection—because we had good intelligence that the Iraqis were hiding documents related to their nuclear centrifuge program—to a hospital for amputees. Now, can you imagine how many Security Council members I would have behind me if the Iraqis had chosen—fortunately this was on the first inspection, and they hadn't gotten very smart. But if they had chosen to say we can't have you traipsing through a hospital that has amputees from the war with Iran there, I probably wouldn't have gotten the support of my own government, quite frankly, at that stage. And that is how they manage the confrontations. It is not on the high ground. It is on individual cases, access to Saddam's palace, access to a Ba'th Party political headquarters. Well, you know, would we like UN inspectors traipsing through the RNC or DNC?

I mean, they do it in ways that guarantee you will not keep—now, we managed to in the early days. In this current condition, I think it is absolutely assured that we would not keep the Council through really tough inspections.

Senator COCHRAN. On another subject, I think Mr. Einhorn and Dr. Spertzel have testified that Iraq deployed Scud missiles with biological warheads. There are several reports that we have received, unclassified reports, that Saddam Hussein continues to retain interest in missiles of longer range than those permitted under UN Resolution 687. Do you think he is likely to try to equip long-range ballistic missiles that he may develop with weapons of mass destruction?

Mr. SPERTZEL. I will start out by—yes. We found plans, design plans for a container to fit into a missile warhead—and I am not enough of a missile expert to tell you which one—the size of which could have only been for bio application. It was much too small for either chemical or nuclear devices. And certainly all the indications we had during the inspection period was their interest in acquiring a longer-range capability. The intent of at least one of the two Superguns, which was designed to hit much of Europe, or so the propaganda said, that the smaller of those two was clearly designed to carry a biological warhead, or missile, I guess in this case, being fired from the Supergun.

So, yes, there was and undoubtedly is a continuing interest in developing longer-range missiles capable of delivering a small payload, which is easier for them to do. That would imply bio and perhaps later on a nuclear.

Senator COCHRAN. Dr. Kay, could you respond?

Mr. KAY. If he had the capacity to do it, I have no doubt that, in fact, he would do it. This is an individual who has sought it at every stage.

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For example, in the nuclear program, although they were starting with an early program, they were already carrying out research on how to use thermonuclear boosting to increase the size and yield of the weapon.

The aspirations are unlimited. Given the time and the money and Saddam still in power, they will certainly proceed along that course.

Senator COCHRAN. Mr. Einhorn.

Mr. EINHORN. Just to add something, Senator Cochran, there is no question they would like longer-range missiles. One of the failings of Resolution 687, the ceasefire resolution, was that it allowed the Iraqis to have missiles up to 150 kilometers in range. I think that was very unfortunate because under the guise of permitted short-range systems, they could do a lot of work to help them get a leg up on future, more capable systems, and they are doing that right now.

This Al-Samoud liquid-fueled missile is supposed to be below 150 kilometers. I have my doubts about that. They have a tactical short-range solid-fueled missile called the Ababil that I think is being used to develop a solid propellant infrastructure that can then be used in the future for more capable solid-fueled missiles. So I think they are laying the groundwork.

But it is important to recognize the embargo, the current sanctions, as porous as they are, do have an impact on restricting what they can do. No doubt they are trying on the black market to acquire ingredients for their missile program. And they are succeeding to some extent.

But, an important aspect of a missile program is to be able to flight test, and, sure, they are conducting short-range flight tests that they are permitted to do, but they can't fire a missile at long range. They know they would be detected.

Look at Iran. Iran is flight-testing this medium-range ballistic missile, the Shahab–3, and they are making a lot of headway on acquiring a delivery capability that can go throughout the Middle East.

Iraq is real constrained because of the inability to have an overt flight-test program at long range. That is an important constraint on what they can do.

Senator COCHRAN. Thank you very much. Thank you, Mr. Chairman.

Senator AKAKA. Thank you, Senator Cochran.

Dr. Spertzel and Dr. Kay, on Sunday, Secretary Rumsfeld said that international inspectors were limited in what they could do, and that their ability to find out what was actually taking place was minimal. He noted, " the real information that they were able to get—came from defectors who left the country, provided inspectors with information and in a few cases were able to discover some things and destroy some capabilities."

The question is: Were all substantial discoveries made as a result of defectors?

Mr. KAY. Senator, in my case, that is not the case. I hesitate to disagree with Secretary Rumsfeld, A, because I don't want to become the subject of his afternoon press briefing, but more impor-

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tantly, I was actually flying back from Honolulu on Sunday and so didn't hear what he said on "Meet the Press" or "Face the Nation."

Inspectors—and Bob Einhorn referred to it. There is no substitute for people on the ground. We certainly used information from defectors. We used information, at least while I was there, from any source we could. But we made genuine discoveries. The Iraqis made stupid mistakes, and we unraveled them. They lied and we detected those lies and pulled them apart. It is not true that all the information was discovered as a result, at least in the nuclear area, as a result of defectors—although I welcome defectors, let me be clear.

Mr. SPERTZEL. And with all due respect to Secretary Rumsfeld—and thank you for asking that question because I welcome the opportunity to reply to his statement. In bio, that absolutely is not the case. If I had to cite one single item that may be the most important, it would have been the import of supplies and equipment, the records that we were able to obtain from suppliers. That became the crucial item that forced Iraq to acknowledge their program, and the information that we had up until July 1, 1995 when Iraq first acknowledged their biological warfare program, none of it came from defectors.

Now, as Dr. Kay said, certainly I would welcome defector information. Now, Hussein Kamel Hassan's defection did not add anything to the bio program other than perhaps stimulate Iraq to make further elaboration, but it wasn't information that we obtained from him.

Now, there were later defectors and one very crucial one that would have led us to a site in January 1998 that the information received from that defector, as well as corroborating evidence from other sources, would have indicated an active bio research and development facility, except the whole system came to a screeching halt in challenge inspections in January 1998 and unfortunately got billed as a palace issue, which it had nothing to do with palaces. We had arranged to have three bio teams in-country at the same time, and we were going to join the inspection team of Scott Ritter to go to that site. But they got blocked the day before.

So, yes, defector information is valuable, but I think it played a minor role, not a major role.

Senator AKAKA. Thank you.

Mr. Einhorn, an Iraqi defector said he personally worked on renovations of secret facilities for biological, chemical, and nuclear weapons in underground wells, private villas, and under a hospital in Baghdad as recently as a year ago. Do you believe that these sites are used primarily to hide activities or to discourage military action against the sites in the future? And what recourse does the United States have against such facilities?

Mr. EINHORN. Mr. Chairman, I am not aware of the specific reports. They are certainly plausible to me, given past Iraqi behavior. They may feel that by hiding proscribed materials in places like that, it would be difficult to inspect without arousing public opinion, that they could have some degree of immunity from the effects of inspection. So it is entirely plausible to me that they would adopt that strategy. These gentlemen (the other witnesses) are

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probably familiar with many cases where they have adopted that strategy in the past.

Senator AKAKA. Dr. Kay and Dr. Spertzel, UN resolutions governing UNSCOM activities permitted on-site inspections with full access, including no-notice inspections and sample analysis. How frequently did you as an inspector implement these measures?

Mr. SPERTZEL. In the case of bio, our resident inspection teams, to my knowledge, always functioned on a no-notice basis. That was the instructions to them.

They also worked on a variable schedule that was devised—and I would prefer not to say publicly what the basis was—so that it was sufficiently random that hopefully Iraq would not know.

The limitation we had, however, was the minute a bio team headed beyond Samarra, they obviously were only going to three sites in the north, similarly in the south. And one of the proposals that has been made for a new inspection regime is that they have satellite inspection teams full-time in the north and the south and elsewhere in Iraq in addition to Baghdad, if necessary, because that essentially provided notification to Iraq.

The non-resident teams always functioned on a no-notice basis, whether it was revisiting a declared site or an undeclared site.

Mr. KAY. Mr. Chairman, I conducted actually the first no-notice inspection by any of the teams in Iraq. It was a result of having for a week tried to give the Iraqis under instructions notice of 24 to 12 hours. Not surprisingly, they moved everything. And so we resorted—and after that point, no notice became the standard.

Now, it seems it is—no notice sounds easier in theory than it is. There are logistic opportunities, like Dr. Spertzel referred to. There is also the fact that all your meeting rooms were audio-bugged. I spent a number of hours jogging around Baghdad with some fit and some not-as-well-fit inspectors as we planned out how to conduct inspections because that was our only privacy.

The Iraqis, we now know because of a defector, had penetrated a number of the inspection teams and actually gained notice. It was a constant struggle. Without no-notice inspections, there are absolutely no hopes of finding anything.

Senator AKAKA. Dr. Kay, why has the International Atomic Energy Agency been able to continue its inspections in Iraq? Is it due to their inspections being more narrowly defined? Or are they seen as less political and more independent than the UN teams?

Mr. KAY. The Iraqis from the beginning have tried to drive a wedge between UNSCOM as the tough guys and the IAEA as the soft technical inspection. It was always a problem, one that was managed. The current inspections that have continued since 1998, though, are because they are more narrowly focused. They are focused on sites which were pre-Gulf War nuclear—permitted nuclear activity areas. They go only there. They don't go anyplace else. It is a narrow technical, and so it gives the Iraqis the appearance of maintaining compliance with the non-proliferation treaty, and yet it does not threaten their hidden program.

So under those ground rules, you could conduct biological inspections or anything else. It is just not threatening to their program.

Mr. SPERTZEL. If I could add, I believe those inspections are also aimed at essentially recertifying that a known quantity of nuclear

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material that Iraq had in 1990 is still there and that the IAEA teams can come in and still cite, oh, yes, there is X number of pounds of substance X, and it is aimed at that, not whether they have accumulated anything else.

Mr. KAY. That is absolutely the case.

Senator AKAKA. Thank you. Senator Thompson.

Senator THOMPSON. Thank you, Mr. Chairman.

Senator AKAKA. More questions?

Senator THOMPSON. Yes, sir.

Dr. Spertzel, you made reference to the fact that from the very beginning their WMD program—perhaps you were referring specifically to the biological program—had a terrorist component. What did you mean by that? Could you elaborate?

Mr. SPERTZEL. Yes. I was referring to the bio, although at least initially it was true for the chemical as well. When the bio program was established by Iraq in 1973, perhaps late 1972, under the Al-Hazen Ibn Al Haithem Institute, the program was established totally by the intelligence organization with some technical input as well by the military, but all funding and guidance came through the intelligence.

The nature of the studies that they were conducting, the types of organisms that they were evaluating and so on indicated two types of delivery: Those that would be of interest to the military for tactical and strategic reasons, and those that would be only of value used in a clandestine terrorist fashion.

And, in fact, the initial efforts with the wheat smut, wheat cover bunt, anti-crop agent was developed to be delivered covertly and was the initial efforts in an unmanned, albeit in this case a very small drone as a delivery means. The initial efforts appear to have been aimed at Iran, but later the interest changed.

There was also a variety of interesting other agents that are of only utility for terrorist application.

Senator THOMPSON. Their biological program is still under the intelligence organization, isn't it?

Mr. SPERTZEL. Yes, sir. There was a period perhaps from about 1979 to 1983—I am sorry, 1986 or 1987 when the military piece was under DOD—Ministry of Defense, and then brought—in 1987 it was brought back under the umbrella of the intelligence service. By that time the intelligence service had split into two different organizations. In this time, it was under the special security organization that is currently headed, I believe, by Saddam's oldest son.

Senator THOMPSON. So you attach significance to that, the organizational structure, and looking at it from a terrorist or potential terrorist standpoint. That would be the main reason you think that it would be organized that way, because it would not strictly be military or defense usage.

Mr. SPERTZEL. That is right. The program, as it appears to be designed, is for either the last-gasp, if you like, protection of the regime as well as the second side, which appears to be from the very beginning aimed at terrorist application, terrorist usage, wherever the regime felt necessary.

Senator THOMPSON. Could you elaborate on that a little bit? I guess to me that issue would depend upon, of course, its usage. Developing the biological weapons themselves, I suppose, could be

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done under any structure. But is there anything that you see in terms of their usage or their preparation that would indicate an offensive intent? You mentioned maybe a last-gasp situation where it is a fallback to be used in case they are about to be overrun or something, which would be serious enough in and of itself. But is there anything in addition to that that would indicate to you some potential offensive usage?

Mr. SPERTZEL. From the military standpoint or terrorist standpoint? The military——

Senator THOMPSON. From a terrorist standpoint.

Mr. SPERTZEL. From the terrorist standpoint, because the Commission made almost an active effort not to delve into the terrorist side of it, we have very little information to go on.

Senator THOMPSON. Why was that?

Mr. SPERTZEL. It was deemed that it was not part of the mandate of Resolution 687.

Senator THOMPSON. So we don't know as much about potential terrorist capability or intention as we perhaps could have.

Mr. SPERTZEL. Absolutely.

Senator THOMPSON. That leads me to something else. You mentioned—I think, Dr. Kay, it was you who indicated that in terms of what they were doing from a nuclear standpoint, that our intelligence estimates were off. Would you elaborate on that a bit, and Dr. Spertzel also, in terms of bio? How does what we found when we were in over there or anything that we may have determined later compare with our intelligence estimates that we had going in? We know from the Rumsfeld Commission, for example, that we were off quite a bit in terms of some countries, in terms of some capabilities. Dr. Kay, I assume that was the case that you alluded to. Could you elaborate on that a bit?

Mr. KAY. Well, in the nuclear program, the prevailing intelligence estimate was that the Israeli action against Osiraq reactor, which occurred in June 1981, had substantially derailed the Iraqi nuclear program, that the principal evidence seen in the period from 1981 to the Gulf War was a shop-until-you-drop mentality, that is, Iraq had a lot of money and they were buying a lot of things and that there wasn't substantial doubt that they were trying to pursue a nuclear program, but that it seemed to be chaotic and not very close and not focused.

And there were less than a dozen facilities identified as target points during the course of the coalition air campaign as being decisively known to be nuclear facilities or thought to be nuclear facilities.

When we got on the ground, we found that instead of that, what the Iraqis had done is they had pursued a systematic Iraqi Manhattan Project designed to procure high-enriched uranium using literally all the known methods, the Tarmiya, the central—the first place we found the centrifuge—or, pardon me, the calutron program, EMIS program, electromagnetic isotope separation program, was, Senator Thompson, you will be happy to know, an exact duplicate of a facility that exists in your State. What the Iraqis had done is come here, and quite openly because it was unclassified, buy the blueprints of where we produced high-enriched uranium at Oak Ridge using calutrons, and just built a plant. They had also

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had a centrifuge program that had produced a building, what is called Al Furat, that was not known to U.S. intelligence until inspectors discovered it. And let me make this point: This was not as a result of a defector. We discovered that in the course of an inspection because an Iraqi official made a mistake in how he described the program, and we went there. It was larger than any centrifuge plant that exists in Western Europe or the United States, that if the war had not intervened, right now we would be facing an Iraq, if they had overcome the production problems, that would be producing a very large amount of high-enriched uranium.

They also produced a chemical enrichment program. They were trying laser enrichment, which probably would have only consumed a large amount of money and not produced nuclear material. That has been our experience with it. But it was an all-encompassing program. The scope, scale, and dimension was much larger than was known by anyone.

Let me not throw stones at the U.S. intelligence community. I did not receive a briefing from any other country's intelligence community that indicated they knew that scope.

Senator THOMPSON. This plan with regard to the Oak Ridge facility, was this a blueprint you discovered, or what was it, did you say?

Mr. KAY. We actually discovered the plant, and——

Senator THOMPSON. They had duplicated the plant?

Mr. KAY. They had duplicated the plan. They built it to the plan, and the way we discovered it is a testimony to actually the knowledge in the U.S. program, although the individual has since passed away. We brought the photos back, spread them out on the table, asked one of the Oak Ridge designers, who was still alive and still working there, 80 years old, in that plant, didn't tell him what it was except a facility in Iraq. He walked around, looked at the pictures, and said—and I will never forget the statement—"I know this plant. I work in this building every day of my life." And sure enough, as we took the plant apart and then we discovered the blueprints later, it had been built to a set of U.S. plans.

Senator THOMPSON. How do you account for that?

Mr. KAY. Well, the plans are openly available. You could go today and buy them. We declassified—the calutron program, the EMIS program, was one that the United States abandoned because gaseous diffusion came on line and was far more efficient. When we were doing calutrons during the course of the Second World War, it took approximately one-half of the available U.S. electric supply and all the silver that was stored by the Treasury to use to wrap magnets in. It was a very inefficient way. The Iraqis had improved on it. They pursued it because they correctly guessed that no one would think anyone would be so stupid as to use that means of enrichment.

And, in fact, the first assessment that came back to the United States, two Nobel Prize winners were asked to evaluate it, and their exact comment was, "It can't be that. No one would be so stupid to do that. There are better ways to produce."

There is a lesson for us here. There were some very old ways and still are very old ways of producing weapons that are quite destructive.

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Senator THOMPSON. It was older but it was easier for them to do?

Mr. KAY. It was easier to hide and disguise. They still struggled with that process as well. That is why they were developing centrifuges, which are genuinely easier for everyone once you produce centrifuges.

Senator THOMPSON. So they have plenty of uranium, I take it. It is just a matter of enriching it and——

Mr. KAY. That is correct. There is abundant uranium in Iraq. It is not in the concentrations you would like to have or you would find in Canada or other places, in the former Soviet Union. But there is plenty of uranium. Money doesn't constrain their program. And this was the hard lesson everyone has learned. Just because it is expensive to do or not the best way doesn't mean the Iraqis won't pursue it. They will spend the money.

Mr. SPERTZEL. In the bio program, clearly the intelligence was sufficient to know that Iraq was at least attempting to weaponize botulinum toxin and anthrax, which is what prompted the use of vaccines against those agents for the coalition forces. But the intelligence was not good enough to know where the production plants were because of the four sites that we could identify as actually being involved in the production of biological agents, not a single one of them was touched by even one bomb.

So, yes, the intelligence——

Senator THOMPSON. Could that have been on purpose?

Mr. SPERTZEL. No. They simply didn't know.

Senator THOMPSON. There was no danger to the civilian population or anything like that that would have come into play?

Mr. SPERTZEL. Certainly the major production plant, which was the Al Hakam facility out in the desert, that could have been blown up with absolutely no qualms whatsoever, particularly if it was a daylight strike.

Senator THOMPSON. So is it fair to say we knew basically what they were doing, we just didn't know where they were doing it?

Mr. SPERTZEL. We certainly had some indication that they were investigating both botulinum toxin as well as anthrax. My guess is a lot of that probably came from import information because there was a basis for—would have been a basis for questioning that. But it was believed that most of that effort was all taking place at the Salman Pak Peninsula. And it is true, Salman Pak was, in fact, the original site of the BW program back in the early 1970's and stayed there throughout the 1970's and 1980's. But it was a research site, research and development site, not a production site. And by July 1990, before the invasion of Kuwait, all of the bacterial piece of the bio program had been moved out of Salman Pak and only the terrorist application as well as the Ricin work remained at Salman Pak.

So, actually, our information was not current in terms of what Salman Pak was being used for by the Iraqis.

Senator THOMPSON. Thank you, Mr. Chairman.

Senator AKAKA. Thank you. Do you have anything further?

Senator THOMPSON. I don't, unless Mr. Einhorn wants to comment on the last—I am finished. Thank you.

Senator AKAKA. Thank you, Senator Thompson.

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I would ask that the statement of Senator Carnahan be included into this hearing record.

[The prepared statement of Senator Carnahan follows:]

PREPARED STATEMENT OF SENATOR CARNAHAN

Thank you, Mr. Chairman.

I, too, want to welcome the distinguished panel we have before us today.

You are top experts in your respective fields, and I am looking forward to hearing your views on the dangerous situation in Iraq.

For too long now Saddam Hussein's Iraq has posed a threat to both its neighbors and the international community.

He lost the war but his program to develop weapons of mass destruction has not been dismantled.

He had the choice to comply with the United Nations resolutions and rejoin the community of nations.

But he has made other choices, and those choices need to have consequences.

While Iraq has been contained militarily in recent years, we have not had weapons inspectors on the ground since 1998. So for years, Iraq has been free to develop nuclear, chemical, and biological weapons with impunity.

Saddam Hussein has raised an estimated $1 to $2 billion annually from smuggled, illegal oil sales revenues.

This money has most likely been spent on his weapons of mass destruction programs.

Yet he has blamed the United Nations and the United States for the suffering of the Iraqi people, when in reality he has chosen not to use available funds for humanitarian purposes.

Today's hearing has two important purposes.

First, it is critical that we begin the process of educating the American people about the threat that Saddam poses:

—about the dangerous weapons that he is developing; and
—about the possibility that he could provide them to terrorists that would use them against the United States.

Second, we need to explore the risks and rewards of the various policy options available to the United States.

We can continue to contain him through the no-fly zone and "smart sanctions." But that would not have an appreciable impact on his weapons of mass destruction.

We can try to topple him by supporting opposition group, but we need a realistic analysis of the likelihood that such an effort could succeed.

Or we could take military action.

But we need to understand the readiness of our armed forces for such an engagement, the difficulties of eliminating Saddam's regime, and the impact such action would have on the volatile Middle East region.

Finally, we need to envision what a post-Saddam world would look like and anticipate how to manage difficulties that would arise if there were instability in the Gulf region.

So this is a difficult subject worthy of discussion and study. I look forward to your testimony.

Senator AKAKA. I would like to thank my fellow Senators for their time and interest in this important issue.

Mr. Einhorn, Dr. Kay, and Dr. Spertzel, I thank you for your thoughtful remarks. Your testimony has been very thorough. To summerize your comments: We have lost the propaganda and public relations battle with Iraq; and a solution to the threat posed by Iraq upon the United States and the world is to replace Saddam Hussein and his regime.

You have done the American people a great service by providing such useful and candid statements and sharing your experience and knowledge with us. You have painted a dark picture. Our Nation and our allies have some difficult decisions to make about Iraq. The deterrence effect of weapons of mass destruction has been both a benefit and hazard to the United States and our allies.

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On the one hand, reports indicate that during the Gulf War, Iraq resisted using chemical weapon warheads against coalition troops and Israel out of fear of United States retaliation.

On the other hand, Iraqi leaders are convinced that their possession of WMD was vital to their survival by keeping American and coalition forces from getting into Baghdad in 1991.

I think we have to ask ourselves, with that mind-set, how realistic is it to expect the current regime in Iraq to ever give up WMD capabilities.

As Mr. Einhorn has said, the current regime in Iraq is truly a class by itself. The United Nations credibility is being undermined by Iraq's well-documented and clear-cut violations of proliferation agreements. If we fail to stop Iraq's WMD programs, how will we be able to stop other nations with similar intentions such as Iran?

The international community must work together. The implementation of any system to destroy Iraq's WMD capabilities will depend on firm and active support by the international community. We have heard a lot of very strong rhetoric about Iraq. Now we must put action behind the rhetoric. We must state clearly what our objectives are in Iraq. We must decide what policies are needed to meet these objectives, and we must state when we will use force to meet these objectives. This is the only way to maintain our credibility with our allies and adversaries.

Gentlemen, we have no further questions at this time. However, Members of this Subcommittee may submit questions in writing for any of the witnesses. We would appreciate a timely response to any questions.

The record will remain open for these questions or further statements from my colleagues, and, again, I would like to express my appreciation to our witnesses for your time and for sharing your insights with us. This has been valuable to this Subcommittee.

This hearing is adjourned.

[Whereupon, at 12:34 p.m., the Subcommittee was adjourned.]

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APPENDIX

Addressing the Iraqi WMD Threat

Testimony before the
Subcommittee on International Security, Proliferation,
and Federal Services
Senate Government Affairs Committee
March 1, 2002

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Mr. Chairman, thank you for the opportunity to testify before the Subcommittee on the question of how the United States should deal with the weapons of mass destruction (WMD) threat posed by Iraq.

Although President Bush has put Iraq in the same category as Iran and North Korea as states hostile to the U.S. that are seeking WMD capabilities, the current regime in Baghdad is truly in a class by itself. It has invaded Iran and Kuwait (seeking to absorb the latter), harbored terrorists, repressed and terrorized the Iraqi people, ignored United Nations Security Council resolutions, violated its international arms control obligations, fired ballistic missiles at its neighbors, pursued the full range of WMD programs, and used chemical weapons against Iran and its own people. Iraq has earned the right to be considered the world's number one outlaw state.

Iraq poses a critical test for the international community. Can a state defy the U.N. Security Council with impunity? Can it be allowed to regenerate WMD and other proscribed military programs and then use those capabilities to threaten its neighbors and other states farther away? We have an enormous stake in how those questions are answered, not just in terms of the stability of the Gulf region and the world at large, but also in terms of global efforts to prevent the proliferation of WMD and missile delivery capabilities.

If Iraq's WMD ambitions are not thwarted -- in a situation where a country has engaged in clear-cut acts of aggression, been defeated on the battlefield, been caught red-handed violating arms control agreements, and been subject to the most far-reaching verification measures every put in place -- a damaging precedent will be set for stopping proliferation in future cases where the circumstances for enforcing compliance are not nearly as promising. More specifically, if we fail to stop Iraq's WMD programs, we will have a much more difficult time heading off attempts by Iran to acquire corresponding capabilities. And a nuclear arms competition north of the Gulf would be sure to stimulate interest in such programs elsewhere.

Iraq deserves its place on the U.S. list of state sponsors of terrorism. We should continue to investigate its possible links to anti-American terrorism, and we should continue to be concerned that it might in the future share WMD-related materials and expertise with terrorist groups. But National Security Adviser Rice was right when she said that we don't need evidence of a Baghdad connection to September 11th to know that Iraq is a menace to its neighbors and to international security. Iraq's determined and illegal pursuit of WMD capabilities is a sufficient basis -- independent of whatever role it may play in global terrorism -- to treat it as a dangerous threat that must be neutralized.

Current Iraqi WMD programs and capabilities

Despite persistent Iraqi efforts at deception, evasion, and concealment, the U.N. Special Commission (UNSCOM) and the International Atomic Energy Agency (IAEA) did a remarkable job for much of the 1990s in ferreting out and destroying a large share of Iraq's prohibited weapons and related infrastructure. However, when U.N. inspectors departed Iraq in December 1998, their work was far from done. Significant disarmament tasks and unresolved compliance issues remained, especially in the biological and chemical weapons categories but also, to a lesser extent, in the missile and nuclear areas.

The absence of U.N. inspectors and operational monitoring equipment now for well over

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three years has magnified our uncertainties about Iraqi WMD programs and capabilities. During that period, there has been an increase in illicit Iraqi oil revenues, which are the proceeds of sales made outside the U.N.-mandated Oil-for-Food Program and are paid directly to Iraq rather than to the U.N. escrow account. These illicit oil sales, together with illegal surcharges paid to Iraq by disreputable oil traders operating within the Oil-for-Food Program, have been a source of unregulated income that Baghdad has used for clandestine purchases of goods to maintain the loyalty of regime supporters and to augment Iraq's conventional and non-conventional military capabilities. This acquisition of smuggled imports has been facilitated by the woefully inadequate monitoring of trade by Iraq's neighbors at their land borders with Iraq. Moreover, in addition to goods smuggled outside the Oil-for-Food Program, there is a growing risk -- in the absence of knowledgeable U.N. monitors in Iraq to do post-shipment checks -- that dual-use items imported legally under the Oil-for-Food Program will be diverted to proscribed weapons uses.

While acknowledging that Iraq's refusal to admit inspectors has been a serious handicap in keeping track of WMD-related developments, the CIA nonetheless judges that, "given Iraq's past behavior, it is likely that Baghdad has used the intervening period [since December 1998] to reconstitute prohibited programs." (Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 January through 30 June, 2001.) The following is a brief summary of the status of Iraqi programs.

Nuclear. A combination of Desert Storm air strikes and UNSCOM/IAEA disarmament activities essentially eliminated the physical infrastructure of Iraq's pre-war nuclear weapons development program -- the nuclear facilities, equipment, and materials. However, the "intellectual infrastructure" remained largely intact. CIA Director George Tenet told the Senate Select Committee on Intelligence on February 6th: "We believe Saddam never abandoned his nuclear weapons program. Iraq retains a significant number of nuclear scientists, program documentation, and probably some dual-use manufacturing infrastructure that could support a reinvigorated nuclear weapons program." It is generally assumed that teams of Iraqi specialists have been kept together by the regime and are engaged in theoretical weapons design work and other low-profile, laboratory-scale activities, including the development and perhaps the fabrication and operation of machines for the enrichment of uranium. Most IAEA and other experts on Iraq's nuclear program believe that, if Iraq could obtain sufficient weapons-grade fissile material (either through smuggling or producing it indigenously), it could construct a workable nuclear device in a matter of several months to a year.

The key, then, is access to bomb-grade nuclear material -- especially highly-enriched uranium, which is a much more likely choice for Iraq than plutonium. A year ago, the Pentagon reported that "Iraq would need five or more years and key foreign assistance to rebuild the infrastructure to enrich enough material for a nuclear weapon. This period would be substantially shortened should Baghdad successfully acquire fissile material from a foreign source." (Proliferation: Threat and Response, January 2001.) A critical question is whether Iraq, using either the centrifuge or diffusion method of enrichment, could produce enough weapons-grade uranium to build a bomb without being detected by remote intelligence-gathering means. Many experts believe it could.

Biological. After repeatedly denying the existence of a BW program, Iraq was forced to admit in 1995 that it had produced anthrax, botulinum toxins, and aflotoxins and that it had filled

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both missile warheads and aerial bombs with BW agent. The story it has stuck to in recent years, without providing any credible substantiation, is that all BW agents and munitions from its program were destroyed by Iraqi authorities. UNSCOM believed, however, that Iraq had produced three or four times more BW agent than it had declared and that large amounts of growth media, agents, and munitions remain accounted for. The CIA maintains that Iraq has continued dual-use research that could be used to enhance its BW capabilities and assesses that Iraq "may again be producing biological warfare agents."

Chemical. UNSCOM destroyed large quantities of Iraqi chemical warfare agents and munitions, but important questions remain about the size and disposition of the CW program. An Iraqi document once seen by a U.N. inspector suggested that Baghdad had under-declared its CW munitions and may have hidden about 6000 weapons. UNSCOM also reported that over 500 tons of precursor chemicals for the nerve agent VX remained unaccounted for. Despite repeated denials by Iraq that it had produced VX in weapons-usable form, physical evidence of such weaponization was discovered and confirmed by international panels of experts. Since the Desert Fox bombing strikes in December 1998, the Iraqis have rebuilt several dual-use chemical facilities that formerly engaged in production for Iraq's CW program but are also capable of producing chemicals for legitimate industrial purposes. The CIA assesses that Iraq has the capability "to reinstate its CW programs within a few weeks to months."

Missiles. UNSCOM believed that it had accounted for the elimination of all but a handful of Iraq's SCUDs, although the U.S. intelligence community judges that a small covert force of SCUDs may still exist. More worrisome is what Iraq is currently doing under the guise of missile programs permitted under U.N. resolutions (i.e., missiles with ranges below 150 kilometers). Its liquid-fueled Al-Samoud missile is probably already capable of exceeding the range threshold and, in any event, the program is widely assumed by experts to be a test bed for longer-range missiles. Its short-range Ababil-100 missile program is providing Iraq with a solid-propellant infrastructure and other important technologies that can be applied to more capable, longer-range missiles in the future.

In his State of the Union speech, President Bush vowed to "prevent the terrorists and regimes who seek chemical, biological or nuclear weapons from threatening the United States and the world." He also noted that "time is not on our side. I will not wait on events while dangers gather. I will not stand by as peril draws closer and closer."

How close is the peril of Iraqi WMD? Today, or at most within a few months, Iraq could launch missile attacks with chemical or biological weapons against its neighbors (albeit attacks that would be ragged, inaccurate, and limited in size). Within four or five years, it could have the capability to threaten most of the Middle East and parts of Europe with missiles armed with nuclear weapons containing fissile material produced indigenously -- and to threaten U.S. territory with such weapons delivered by non-conventional means, such as commercial shipping containers. If it managed to get its hands on sufficient quantities of already-produced fissile material, these threats could arrive much sooner.

Thwarting Iraq's WMD ambitions

By now -- after close to three decades of clandestine Iraqi efforts that were extraordinarily expensive in terms of the country's most productive human and material resources and after over a decade of subterfuge and sacrifice to protect that huge investment -- it should be clear that the

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current government in Baghdad is deadly serious about retaining and enhancing its WMD capabilities. The importance that the regime places on those capabilities can be measured not just by the monumental costs of the programs themselves but also by the national income -- estimated at well over $100 billion -- that the leadership has chosen to forgo rather than to do what was necessary to have the economic sanctions removed.

Those outside Saddam's inner circle can only speculate about why those WMD programs and capabilities have been valued so highly. Perhaps Saddam calculated that they would give him a decisive military advantage in pursuing aggressive designs against Iraq's neighbors or an important political symbol in bolstering Iraq's claims to dominance in the Gulf region and leadership in the Arab world. Especially in recent years, Saddam may have regarded them as a counter to Iran's WMD programs, as a deterrent to American-led coalitions that might wish to attack Iraq, and as a means of ensuring the survival of the regime.

But one thing is for sure: the present regime in Baghdad will not voluntarily come clean about its current efforts and give up WMD and missile delivery capabilities for the future. The experience of recent years -- including the erosion of international support for sanctions, the growth of illegal oil sales and imports, and the end of Baghdad's diplomatic isolation -- has given Saddam confidence that momentum is on his side and that he can have his cake and eat it too (both the end of sanctions and the retention of Iraq's WMD programs). Indeed, Saddam may figure that he comes out a winner whether or not the sanctions are removed. If they are removed, he has prevailed. If not, he gets credit for defying the U.S., sympathy for being a victim, and an excuse for maintaining an iron grip at home. No inducements or blandishments -- not even the growing prospect of military action by the Bush Administration -- are likely to produce a genuine change of heart, and a decisive and credible change of behavior, as far as WMD is concerned.

In a February 7th letter to Turkish Prime Minister Ecevit, Saddam Hussein wrote: "As pertains to the weapons of mass destruction, Iraq which no longer has any of these weapons and has no intention of producing them, is in the forefront of those who are keen that our region be free of weapons of mass destruction." It is doubtful that anyone in the world believes this statement. It is equally doubtful that Saddam, having repeatedly staked out this position, will now reverse himself, make a confession about past and present transgressions, and do what would be required to give his reversal credibility.

Given these considerations, **one must conclude that the only reliable and durable way of preventing Iraq from regenerating and enhancing its WMD and proscribed missile programs is to replace the current regime in Baghdad with one that is prepared to abide by its international obligations**. Of course, there is no guarantee that a successor regime will be any less interested in Iraqi WMD capabilities than the present one. That will depend on such factors as its political complexion, the circumstances in which it came to power, its relationship with the United States and its neighbors, the attitudes of Russia and other Security Council members, and the status of WMD programs in Iran and elsewhere. But those uncertainties are subject to positive influence and are far preferable to the certainty of a Baghdad government that is bound and determined to acquire nuclear weapons and long-range means to deliver them -- and sooner or later will succeed.

A consensus seems to be developing in Washington in favor of "regime change" in Iraq, if necessary through the use of military force. The debate is no longer over "whether" but over

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"when" and "how." This hearing of the Subcommittee was not convened to discuss the questions of when and how. But because a strategy for regime change is likely to take additional time to develop, prepare for, and execute -- anywhere from several months to a year or more -- we should give consideration to the **interim steps** we should be taking now to address the Iraqi WMD threat.

Smarter sanctions

An important interim step will be to revise the current U.N. sanctions regime so as to expedite the delivery of humanitarian and other civilian goods to the Iraqi population while focusing the sanctions more narrowly on items that could contribute significantly to proscribed weapons programs. The U.N. Security Council agreed in November 2001 to make such revisions. If current negotiations stay on track -- and specifically if Russia joins the other P-5 members -- a modified system will take effect on May 30th.

Under current arrangements, almost all contracts for exporting goods to Iraq under the Oil-for-Food Program must be approved by members of the U.N. Sanctions Committee, including the United States. Under the revised approach, only contracts containing items on an agreed list of dual-use equipment and technology (i.e., the Goods Review List) would be referred to Committee members, who would either approve or deny them. All other contracts would receive "fast-track" approval without review by the Committee. Key elements of the U.N. sanctions regime would not be affected: revenues from oil sales would still have to be deposited in the U.N.-controlled escrow account; imports of all arms and arms-production technologies would still be prohibited; and the U.S. and other members of the Sanctions Committee would still have the right, acting on their own, to block the export of any items on the Goods Review List if they judged that there was a significant risk of diversion to a proscribed weapons program.

Focusing the "smart sanctions" only on dual-use items that have the potential to contribute significantly to proscribed weapons programs would markedly reduce the workload of U.S. reviewers and enable them to give more careful scrutiny to the most sensitive cases. The more streamlined procedures would also cut down on delays and bottlenecks in the approval process and facilitate the expeditious delivery of civilian goods to the Iraqi people. This would help reduce the strong criticism that the U.N. sanctions regime has received, especially in the Arab world, for the adverse effect the sanctions are believed to have had on Iraqi civilians. (In fact, the Iraqi government deserves much of the blame for its failure to draw on the ample funds that exist in the U.N. escrow account to purchase civilian goods for Iraq. Rather than spend those funds on the needs of his people, Saddam chose to leave the money sitting there and to blame the UN for the resulting suffering. By expediting the delivery of a wider range of civilian goods, the smart sanctions can make clear who is to blame for any shortages the Iraqi people continue to endure.)

While helping to shore up international support for the remaining, more tightly focused restrictions on Iraqi imports, the smart sanctions will not solve two of the most serious deficiencies in the current operation of the sanctions regime.

The revised approach will not stop or even reduce illegal oil sales, which give Iraq the revenue to purchase sensitive goods clandestinely. Iraq provides oil outside the Oil-for-Food Program to neighbors such as Jordan, Syria, and Turkey at heavily discounted rates. The beneficiaries of these discounts will be extremely reluctant to terminate the existing

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arrangements. Moreover, they argue that much of the money earned by Iraq from these discounted oil sales is not available for imports of sensitive technology because it is used to purchase non-sensitive goods (albeit outside the Oil-for-Food Program) from them. Given the strong views held on this matter by such close friends of the U.S. as Turkey and Jordan, this is an extremely hard problem to solve. Still, the Administration must do whatever it can to minimize Iraq's illicit oil revenues -- by pressing the neighboring states (especially Syria) to limit their purchases of Iraqi oil or to put those purchases under the Oil-for-Food Program and by strengthening the effort to stop middle-sized oil trading companies from paying illegal surcharges to Baghdad.

A second serious problem not addressed by the smart sanctions is clandestine Iraqi imports. Truckloads of goods come into Iraq unmonitored and, with more countries resuming flights into Baghdad International Airport, the potential for using air cargoes to smuggle in sensitive goods is growing. Past efforts to get Iraq's neighbors to take a more serious approach to border controls have been met with resistance on the grounds that they lack the resources to do the job and that more rigorous screening would be highly disruptive of cross-border trade arrangements critical to them economically. Despite this resistance, the Administration should do what it can -- including increasing its technical and material assistance for border controls -- to persuade Iraq's neighbors to do a better job stopping illegal Iraqi imports. It should also press states that trade with Iraq to scrutinize exports more carefully to ensure that they are not contributing to proscribed Iraqi programs.

Return of the inspectors: verification gain or trap?

In the last several weeks, President Bush and his senior advisers have repeatedly called for the return of U.N. inspectors to Iraq. However, a number of experts outside the government -- as well as some Administration officials -- have expressed skepticism about the value of resuming U.N.-mandated verification in Iraq, and have even suggested that the return of inspectors could undermine U.S. objectives. Uncertainty about the Administration's attitude has led to speculation that its calls for inspection are intended to provide a justification for military action if Baghdad -- as expected -- refuses to admit the inspectors. It is therefore useful to review the arguments for and against returning the inspectors.

Critics of sending inspectors back to Iraq say that the UN Monitoring, Verification, and Inspection Commission (UNMOVIC) would not have the intrusive and comprehensive inspection rights enjoyed by UNSCOM and, in any event, would not exercise them as aggressively as its predecessor had. Moreover, they argue, the resumption of inspections would not provide much verification benefit, both because the Iraqis have had years to perfect their concealment methods and because they would simply deny access if the inspectors got near anything incriminating. Early on, the critics warn, Iraq's supporters on the Security Council, especially Russia, would start demanding the suspension and lifting of all remaining sanctions on the grounds that the failure to find evidence of non-compliance shows that there is nothing to find. According to this scenario, Iraq would be given an unwarranted clean bill of health and strong pressures would develop for ending the sanctions regime altogether.

Just as worrisome, assert the critics, is that having the inspectors in Iraq will complicate a strategy of regime change. In addition to the practical matter of ensuring that inspectors do not become targets or hostages in any military action, the return of inspectors would give other

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countries, including the Europeans and states of the Middle East, an excuse for arguing that military action should be deferred while inspections are "given a chance" to resolve the WMD issue.

Risks are not as great as feared

Some of the concerns of the skeptics are exaggerated. On paper, at least, UNMOVIC has the same rights as UNSCOM. Security Council resolution 1284 states that "Iraq shall allow UNMOVIC teams immediate, unconditional, and unrestricted access to any and all areas, facilities, equipment, records and means of transportation which they wish to inspect." Moreover, while UNMOVIC's operating style would be less aggressive than that of UNSCOM, what we know about UNMOVIC's leadership and its plans for resuming work in Iraq suggests that the new body would carry out its mandate in a meticulous and thoroughly professional manner. Hans Blix, UNMOVIC's Executive Chairman, has taken the view that "cosmetic inspections are worse than none," and that the Security Council has not authorized him to provide Iraq any "discounts" on its obligations.

With respect to concerns about the hasty suspension of sanctions, Security Council resolution 1284 prescribes a necessary sequence of milestones that must precede any decision on suspension. Given the need to set up equipment, re-establish a monitoring baseline at hundreds of sites throughout Iraq, approve a work program, and evaluate the degree of Iraqi cooperation for a required length of time (120 days), such a decision could come no sooner than about 9-11 months after the inspectors returned.

With respect to concerns about Iraq receiving an unwarranted clean bill of health, resolution 1284 makes clear that no decision to "suspend" sanctions can be taken until UNMOVIC and the IAEA report that Iraq is cooperating "in all respects" and making progress in resolving "key remaining disarmament tasks." The mere absence of new discoveries of non-compliance would not constitute cooperation; Iraq would have to provide the necessary access to locations and people and work actively to help solve remaining issues. In the event that Baghdad blocked inspections, refused to turn over documents, or rebuffed attempts to interview specialists, UNMOVIC and the IAEA would have a powerful weapon at their disposal. They could simply report that Iraq is not cooperating -- in which case resolution 1284 specifies that sanctions could not be suspended or, once suspended, would be reinstated. No decision to "lift" sanctions altogether could be taken until all remaining disarmament issues, not just the "key disarmament tasks," are resolved. Moreover, decisions to suspend or lift sanctions must be taken by the Security Council, and an affirmative U.S. vote would be required.

The critics are probably right that the inspectors would rarely, if ever, be able to find -- or be allowed by the Iraqis to gain access to -- proscribed weapons, equipment, and facilities that Baghdad has taken pains to conceal. But even if the inspection teams are unable to finish the job of disarming Iraq and bringing it into compliance with its obligations, their presence in Iraq would still be of value in terms of understanding and constraining the WMD threat -- especially compared to the current situation.

The installation of sophisticated monitoring equipment at hundreds of locations and the constant movement of inspection teams around the country would complicate Iraq's covert programs, making it harder and more expensive to keep those efforts hidden and probably slowing their pace and decreasing their scale. By closely monitoring Iraq's missile production

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and testing facilities, the inspectors would gain a better appreciation of the nature of Iraq's missile programs than we now get through remote means. With respect to known dual-use chemical and biological facilities and other installations now considered suspicious, special sensors and site visits could provide confidence -- at least while the monitoring equipment was operating and the inspectors had access -- that prohibited activities were not taking place at those locations. U.N. monitors could also do post-delivery checks within Iraq to verify that potentially sensitive dual-use equipment and materials imported through the Oil-for-Food Program have been put to their declared use rather than diverted to weapons programs.

These benefits do not add up to stopping Iraq's illegal weapons programs. But in terms of keeping track of WMD-related developments in Iraq, they would constitute a significant advance over what we can do today.

But some concerns are well-founded

While the critics tend to exaggerate the risks and minimize the benefits of resuming U.N.-mandated verification in Iraq, they do make some telling arguments.

In particular, they are right that U.N. inspectors cannot compel compliance and therefore cannot end the WMD threat posed by Iraq. At their very best, U.N. monitoring and inspections can complicate, constrain, and slow Iraq's clandestine efforts and give us a better picture of what is going on in Iraq than we currently have. But that amounts to containing or managing the threat, not eliminating it.

Moreover, the critics are right that a resumed U.N. verification effort in Iraq would hardly be a stable or durable arrangement. The Iraqis, in the expectation that sanctions would soon be dropped, might be on their best behavior, at least at the outset. For example, they would probably not interfere with the installation of equipment at previously monitored facilities. But as UNMOVIC and the IAEA sought to monitor and inspect new sites, and as they pressed Iraq for documents and interviews to help resolve outstanding issues, the "cat and mouse" game would begin. Iraq's lack of cooperation might be passive at first (e.g., failure to produce documentation) but could be expected to grow more active (e.g., blockage of inspection teams). When UNMOVIC and the IAEA reported Iraq's non-cooperation to the Security Council and the prospect of suspending sanctions was pushed further into the future, Iraq would grow increasingly impatient and frustrated. Sooner or later a confrontation would almost surely take place. Iraq might evict the inspectors again or the U.N. might decide to withdraw them because their situation had become untenable. If this is an accurate forecast -- and the experience of the 1990s gives little reason to believe it is not -- it raises serious questions about the value of sending the inspectors back at all.

The resumption of U.N. inspections could also lead to serious disputes within the P-5, especially between Russia and the United States. We could expect Russia and perhaps other P-5 members to minimize the significance of unresolved disarmament issues, find excuses for Iraqi non-cooperation, and seek the earliest possible suspension and lifting of sanctions. The Russians would be supported by many countries that have long favored the removal of sanctions and the avoidance of a confrontation with Iraq at any cost. While the U.S. could, if necessary, exercise its veto to prevent a premature and undeserved removal of sanctions, pressures for removing them could build (regardless of the extent of Iraqi cooperation) and the U.S. could find itself increasingly isolated for what would be portrayed as an excessively demanding position.

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Finally, the return of U.N. inspectors could indeed complicate a strategy of regime change. A large number of countries could be expected to make the case that, as long as there is any prospect that U.N. inspectors can resolve the WMD issue peacefully, military action should be put off. The controversy over whether military action was "premature" under the circumstances could make it harder to gain the support of the key countries needed to execute a strategy of regime change.

Will Iraq admit the inspectors?

The debate about whether the inspectors should return is probably moot. So far, Iraq has showed no willingness to accept UN inspections on terms the U.S. could conceivably support. In a recent interview in the *Frankfurter Allgemeine*, Iraqi Deputy Prime Minister Tariq Aziz offered -- knowing that it was a non-starter -- that Iraq would allow inspectors only if other countries (i.e., Israel) admitted them to ensure the absence of WMD anywhere in the Middle East.

Still, we cannot altogether rule out the possibility of an Iraqi reversal on admitting the inspectors, especially if the Bush Administration's recent tough posture has made Iraq nervous and if the Russians are applying strong pressures on Baghdad. If the Iraqis surprised us and said the inspectors could return, the Administration -- especially after what it has been saying recently about the need for the inspectors to return -- would presumably have no choice but to go along. But it would have to insist on a clear understanding among the P-5 that U.N. verification would be carried out in accordance with existing Security Council resolutions (including with respect to the timing and the conditions for considering a suspension of sanctions) and not on the basis of any new rules Iraq wished to establish.

Conclusions

Iraq already can threaten its neighbors with chemical and biological weapons. Unless it is stopped, it will sooner or later have nuclear weapons. We just don't know how long that will be -- and we don't even know whether we will be able to detect Iraq's achievement of a nuclear capability. Clearly, time is not on our side.

There are steps we can take now to address the Iraqi WMD threat. We can put in place smarter sanctions that can help shore up international support for retaining restrictions on sensitive Iraqi imports. We can seek to minimize illicit Iraqi oil revenues, urge tighter monitoring of trade at Iraq's borders, press supplier governments to adopt more rigorous scrutiny and control over exports to Iraq, and work with other governments to interdict sensitive cargoes headed to Iraq when we receive information about such shipments. And if Iraq agrees to admit U.N. inspectors on terms provided for in existing Security Council resolutions, we can give our full support to that resumed verification effort, while stressing to the other P-5 members the need to be resolute and unified in the face of any Iraqi failure to provide full cooperation.

Taken together, such steps may be able to buy some additional time. But they cannot provide any assurance that current Iraqi WMD programs will be stopped and prevented from regenerating. That -- as more and more Americans of both political parties are coming to agree -- will require replacing the regime in Baghdad.

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Testimony Delivered by David A. Kay[1] before the Senate Committee on Governmental Affairs on March 1, 2002

For more than a decade the international community has sought unsuccessfully a long-term solution to an Iraq led by Saddam and armed with WMD. Indeed the start of any sensible long-term approach to Iraq is to understand why the United Nations arms inspections slid into irrelevance and more than 3 years ago came to an end.

UNSCOM's efforts to eliminate Saddam's WMD capacity, which effectively ended in 1998 when the inspectors left Iraq, were based on four assumptions, all of which turned out to be false. These were:

- Saddam's rule would not survive the disasters suffered by Iraq as a result of its invasion of Kuwait;
- Iraq's WMD capabilities were not extensive nor significantly indigenous;
- A post-Saddam Iraq would declare to UNSCOM all of Iraq's WMD capabilities;
- UNSCOM would be able to "destroy, remove or render harmless" Iraq's WMD capabilities leaving an Iraq that would not have WMD capability as an enduring legacy.

The reasoning of US Administration officials at the end of the Gulf War that no regime could survive a disaster as compelling as Iraq's defeat in the Gulf War was no doubt true for a democratic system. Saddam's endurance, however, stands as yet another stark reminder of the dangers of attempting to understand the world on the basis solely of our own values and experience. Saddam's Iraq was and is a brutal, totalitarian dictatorship that can survive as long as it maintains coercive power over its citizens. Once Saddam's survival became a fact then all hope of his voluntarily yielding up the very weapons that allow him to hope to dominate the region was lost.

What is much less well understood is the impact that the discovery of the gigantic scope and indigenous nature of Saddam's weapons program had on the prospects of being able to eliminate this program by inspection alone. We now know that the Iraqi efforts to build an arsenal of weapons of mass destruction:

- Spanned more than a decade;
- Cost more than $20 Billion;
- Involved more than 40,000 Iraqis and succeed in mastering all the technical and most of the production steps necessary to acquire a devil's armory

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[1] David A. Kay *led for the International Atomic Energy Agency and UNSCOM, three arms inspection missions as chief nuclear weapons inspector in Iraq during 1991-92. Now a Senior Corporate vice president with San Diego-headquartered Science Applications International Corp., he is based in McLean, Va The views expressed here are entirely his own and do not represent the views of SAIC.*

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of nuclear, chemical and biological weapons as well as the missiles necessary to deliver them over vast distances.

The capability to produce weapons of mass destruction arising from a national program on the scale of that of Iraq's cannot be eliminated by simply destroying "weapons" facilities. And one should credit the UN inspection process with destroying a substantial nuclear weapons establishment in Iraq that was largely unidentified at the time of the Gulf War and that had survived unscathed the coalition bombing campaign. The weapons secrets are now Iraqi secrets well understood by Iraq's technical elite, and the production capabilities necessary to turn these "secrets' into weapons are part and parcel of the domestic infrastructure of Iraq which will survive even the most draconian of sanctions regimes. Simply put, Iraq is not Libya, but very much like post-Versailles Germany in terms of its ability to maintain a weapons capability in the teeth of international inspections. As long as a government remains in Baghdad committed to acquiring WMD, then once that capability can be expected to become quickly a reality when sanctions are eased, or ended.

To compress a lot of bitter history: In December 1998, the United States conducted military attacks against Iraq after UNSCOM, reported that it could not achieve its mandated disarmament and monitoring tasks with the limited access and cooperation Iraq allowed. All UNSCOM activities in Iraq then cease. UNSCOM, the first UN effort to eliminate Iraq's WMD program passed out of existence and was replaced by the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) through the adoption of Security Council resolution 1284 of 17 December 1999. UNMOVIC was to be more acceptable to Iraq, led by a Commissioner that Iraq and their sympathizers on the Security Council found more acceptable. Even under this more favorable inspection regime, however, Iraq has continued to refuse to admit UN inspectors.

In the nuclear area, the Committee has posed a set of critical questions:

How has the Iraqi nuclear threat changed from the Persian Gulf War and UNSCOM inspections today? What impact has UN sanctions had on the weapon program? How has international opinion of the Iraqi nuclear threat changed during this time period?

The point of beginning to think about how one would describe Iraq's nuclear program today is to recognize the serious impediments that we all face in trying to understand that program. On-site inspections in Iraq were never easy and by 1995-96 Iraq had put in place a major deception effort designed to mislead inspections as to the intent, scope and continuing activities in the

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nuclear area. When UNSCOM inspections managed, as they often did, to penetrate this web of deceptions, Iraq resorted to physical denial of access and threats of violence to neck down the scope of inspections. By 1997 effective, sustained inspections in Iraq had come to an end. The final ending of all inspections in 1998 was in fact an anti-climax. Lacking on-site inspections, with unfettered access to all of Iraq, for over three years has meant that it is impossible to be sure where their nuclear program stands today. It also means that even if inspections were to begin tomorrow it would be impossible to answer this question without a very long, sustained period of unfettered inspections. The baseline of Iraq's nuclear program is broken and it will be impossible to quickly re-establish that baseline.

Based on Iraq's activities before 1998 and sketchy insights available from defectors and exposure of continued Iraqi attempts to acquire nuclear related capabilities, one can say a few things with confidence:

- Iraq's pre-war nuclear accomplishments have ensured that it can acquire fissionable nuclear material from any outside source it will be able to fabricate at least a crude, improvised nuclear device in months not years. For Iraq, just like every other aspirant to nuclear status, the key obstacle is the acquisition of fissile material. Iraq had a viable weapon design and the capacity to produce all the elements of a weapon. If Iraq has to rely on its own efforts to produce nuclear material then one can do little better than the public estimate by German intelligence authorities last year in which, citing major Iraqi procurement efforts that the Germans had knowledge of, that Iraq could, in the worst case, have a nuclear weapon in 3-6 years.
- Iraq will have dispersed and shielded with elaborate deception arrangements its nuclear activities.
- Iraq understands the methods used by inspectors and will be ready to frustrate all efforts to get close to activities they are determined to shield.
- Iraq has not abandoned its efforts to acquire WMD. A recent defector has stated that an explicit order to reconstitute the nuclear teams was promulgated in August 1998; at the time Iraq ceased cooperation with UN-led inspections. There should be no doubt that Iraq, under Saddam, continues to seek nuclear weapons capability and that given the time it will devote the resources and technical manpower necessary to reach that goal.
- Economic sanctions no longer significantly restrict the financial resources that Iraq can devote to WMD programs and over the last

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five years have been of declining value in restricting the flow of goods and technology.

The attitude of states in the region and even many of our European allies toward Iraq's WMD program is harder to understand. By 1996 the real aim of the inspections, the elimination of Iraq's WMD weapons and production capacity and the establishment of a long-term monitoring process began to slide away in the face of resolute Iraqi defiance and the desire of the Russians and the French for short-term economic gain. We should also credit a successful Iraqi propaganda campaign that has gone largely unanswered and has convinced many in the Gulf and in our own country that the US is responsible for keeping on economic sanctions that have devastated Iraq women and children.

Major states in the region, certainly including Egypt, Saudi Arabia and the UAE, are no longer willing to let an automatic anti-Saddam reflex define their policy in the Gulf. Even states, such as Kuwait and Bahrain, which are much more dependent upon the US for their security, are resisting US leadership when it threatens military confrontation. Equally important, Iran is no longer the marginalized state that it was in 1990-91 and has learned to skillfully play each crisis to benefit its long-term goal of removing US influence from the Gulf.

We are left with "allies' that lack sufficient military power to stand up to a rearmed Iraq, and that are increasingly unwilling to provide the US with the political support and operational bases that would allow the US to deal with Iraq even in its present weakened state. This same splintering of alliance ties can be seen in the non-regional allies that were a key part of Gulf coalition structure. The French are no longer willing partners, and the Russians can no longer be coerced or bribed into silent cooperation. If there were ever a psychological campaign that either was not fought or misfired, it has been the US effort to make the states of the Gulf and our European and Asian allies understand how much more dangerous the future is about to become as Iraq rebuilds its nuclear, chemical and biological weapons, the Iranians further accelerate their own efforts and the rest of the region scrambles for political and military protection.

What choices are we left with? Few and mostly bad is the simple answer. The easy nostrums – support the opposition, containment as we did with the Soviets, or the Secretary General's 1998 statement "I can do business with Saddam" – seem expensive, risky and, at best, only partial answers.

The re-introduction of UN inspectors, now called UNMOVIC not UNSCOM, into Iraq may well result in constraining Iraq's WMD ambitions, but freeing them of all restraint. UNMOVIC is a product of a successful effort to

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remove UNSCOM from Iraq and replace it with an inspection regime more acceptable to Iraq. The Iraqi complaints concerning UNSCOM related to its insistence on unrestricted access to anything in Iraq it deemed relevant to determining the scope of Iraq's WMD program and an equal insistence that they would not acceptable any time limit on how long it might take to accomplish this objective. If UNMOVIC were to compromise on either of these, we might end up with Iraq being declared free of WMD, when if fact all that would be certain is that UNMOVIC could not find any evidence of WMD.

The best hope of the opposition was in the chaos at the end of the Gulf War. This opportunity, however, was lost when the US decided to stand aside and let Saddam freely slaughter many brave Iraqis. In the intervening years US policy toward the opposition has grown to resemble nothing so much as the mating ritual of the female Black Widow – promising but quickly lethal to the male. I do not believe that it is true that supporting forces of democratic change is something that Americans are genetically unable to do. It is clear, however, that we generally have been so inept at it that it is likely to deplete the gene pool of promising opponents to tyrants before we are successful.

Containment has a nice ring and the virtue of a clear success in the fall of the Soviet Union. On the other hand, one can only despair that those who urge containment of Saddam as an appropriate policy have not examined the preconditions of the Cold War case to see if they exist in the Gulf. The US maintained for 40 years more than a million troops in Europe as part of its effort to contain the Soviets and invested vast resources in the social, political and economic reconstruction of Europe into a bastion of democratic values. In the Gulf there is no simple overriding fear of Saddam that will dominate all politics the way the Soviet threat did. For example, the Iranians who have every reason to fear the Iraqis will not see a US presence that contains Saddam as serving their interest. Many holders of traditional tribal societal and fundamentalist religious values worry more about the threat of democratic and modern influences that flow from US presence than they will the threat from Iraq. Some of the states in the region are more fearful of a rapid democratic modernization of their societies than they are of Saddam.

Iraq is of a class of problems where all the easy answers seem to have been in the past and all the near terms options are not answers. But that is the future in the Middle East. If it is of any comfort, we should all acknowledge there were never any easy answers in the past. Unless we take immediate steps to address the issue of obtaining fundamental political change in Iraq, we will soon again face a rearmed and embolden Saddam.

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1 March 2002

GOVERNMENTAL AFFAIRS SUBCOMMITTEE on
INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES

"U.S. Policy in Iraq: Next Steps"

Iraq's Biological Weapons (BW) Program was among the most secretive of its weapons-of-mass-destruction (WMD) programs. Its existence was not acknowledged until July 1995. From 1991 to 1995 Iraq categorically denied it had a BW program and it took active steps to conceal the program from the UN Special Commission. This pattern of denial and concealment continued through the termination of inspections by Iraq. These steps included fraudulent statements, false and forged documents, misrepresentation of the roles of people and facilities, and other specific acts of deception. The pattern of deception appears to continue even unto the present. The full extent and the objective of Iraq's BW program has never been disclosed by Iraq.

Iraq's Biological Weapons Program, Then and Now: Iraq asserts that its BW program began in 1985 and dismisses the earlier BW investigations that began in late 1972/early 1973 as being insignificant. From its inception in the 1970s, Iraq's BW program included both military and terrorist applications. The program included bacteria, viruses, toxins, and agents causing plant diseases. The agents included lethal and incapacitating agents for humans and economic damaging agents. The program sought enhanced virulence, environmental and antibiotic resistance, and aerosol dispersion. In other words, this was a well planned, broadly encompassing program. The covert (terrorist and assassination) feature of Iraq's program was not actively pursued by UNSCOM.

BW Program under Intelligence Service/Special Security Organization: The evidence suggests that Iraq's BW program was under the Intelligence Service/SSO. Much of this information came from senior Iraqi personnel, during the course of interviews. Hard evidence as might be expected is lacking.

Iraq's BW program (and, initially, it appears its chemical weapons (CW) program as well) was founded and funded by Iraq's Intelligence Service with some limited technical input from Iraq's Ministry of Defense. A variety of cover organizations were used to conceal the program including the Ministries of Interior, Health, and Higher Education and Scientific Research. From its inception, there were two distinct interests for the program. One dealt with the pursuit of agents that had small scale, covert application and the other would have application to larger scale strategic/military purpose.

Except for the period from 1979 to 1987 when the military portion of the BW program paralleled and was a part of the CW program under direct Ministry of Defense influence, the BW program remained (and probably remains) under the SSO (Amn al Khass). In 1987, the military relevant piece of the BW program was rejoined with the covert BW program. Iraq has repeatedly stated that the BW program was different than the other WMD programs in that it did not report to the staff of Military Industrial Commission (MIC), but rather reported directly to Hussein Kamal Hassan or his senior deputy, Dr. Amer Al Sa'adi (a similar reporting system existed for the SSO). Interview information clearly indicates that the BW-filled weapons remained under the control of the SSO up to and including whatever destruction of such weapons as might have occurred. It is likely that the BW program still remains under the SSO.

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How has the Iraqi biological weapons program changed from the Persian Gulf War and UNSCOM inspections to today? On three separate occasions in 1997 and 1998 panels of international experts reviewed all the information available to UNSCOM. These panels were able to get an extensive albeit undoubtedly incomplete picture of Iraq's BW program. The program was far more complex and extensive than that which Iraq had acknowledged. Iraq asserts that the program was obliterated in 1991 but this is patently not true. UNSCOM monitoring while useful in hindering Iraq's program, was not successful in preventing some degree of continuation of Iraq's BW investigations.

Iraq's BW program in 1990: By any definition, in 1990/1991, Iraq's BW program was in an accelerating expansion phase. An international panel of experts convened at the UN headquarters in New York in 1997 had concluded that the program had not yet reached maturity (this phrase has been advertised by Iraq, including a 2002 submission to the United Nations Security Council (UNSC) as meaning that the program was inadequate and not capable of producing BW weapons). Actually, the panel was stating Iraq had not yet attained its desired level of expansion. Iraq's bacterial BW capabilities was reasonably well established including its ability for production, concentration, spray drying, and delivery to produce a readily dispersable small particle aerosol. Iraq was well underway in establishing a virus research, development, and production capability, but had not reached weaponization potential. Iraq had demonstrated an anticrop capability. It had demonstrated a mycotoxin capability. There was no information on an anti-animal program. Along with its agent production, Iraq was developing a weapons delivery capability, apparently for both short range and intermediate range delivery. The agents included lethal, incapacitating, and agricultural biological warfare agents. There is a major disparity between the amount of agent declared as produced by Iraq and that estimated by UNSCOM experts.

A serious issue concerns Iraq's interest in and weaponization of aflatoxin. It is apparent that Iraq's interest was in its long-term carcinogenic and liver toxicity effect rather than any short term effects. One can only wonder what was the intended target population.

Field tests encompassed point source releases, small area contamination, and large-scale line source release and were evaluated both for tactical and strategic use. The weapons and range of agents considered provided Iraq with a variety of options for their use.

Iraq had deployed R400 aerial bombs to at least three locations in western and southern Iraq, and had also deployed Al Hussein (SCUD) missiles BW-filled warheads and at least one "droptank." Additionally Iraq had field tested BW agents in 122mm rocket warheads and 155mm artillery shells.

Iraq also had an interest in landmines, flechettes, fragmentation weapons, drones, missiles, thin-skinned aluminum weapons, fibre glass-coated weapons, and Supergun projectiles. No investigation of field testing is acknowledged for these weapon types although there are indications that interest had developed in such weapons for biological warfare purposes.

Iraq's BW program in 1998: Although Iraq claims that it "obliterated" the program in 1991 (without the supervision by the UN as was set out in the ceasefire resolution 687 (April 1991), and in so doing it destroyed all weapons and bulk agents unilaterally without any further documentation. The evidence indicates rather that Iraq continued to expand its BW capabilities.

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Expert panels concluded that it was not certain that Iraq had indeed "obliterated" its BW program. Documentation recovered by UNSCOM indicated a continued build up of Iraq's BW program capability. The organizations associated with its BW program continued to acquire and attempted to acquire equipment that would enhance its BW capability and that seemingly would have relatively little utility for Single Cell Protein (SCP) production as alleged by Iraq. From 1991 to 1995, Iraq was actively expanding Al Hakam, its major BW agent production facility, with additional infrastructure and facilities. Iraq tried to explain these as being for SCP production for animal feed supplement. Particularly notable were clear expansion plans that were more reminiscent of an expanded BW facility than a development of an SCP factory.

Among the expansion plans were design and construction of 5,000 and 50,000 liter fermentation units for Al Hakam and Tuwaitha. Countries and companies where SCP is being produced do not consider worthwhile any fermenter with capacity less than 100,000 liters up to 500,000 liters. Disturbingly, such procurement actions included a rather large production plant in association with external assistance. Joint negotiations centered on the design, construction, and operation of a 50,000 liter fermentation facility consisting, not of one 50,000 liter fermenter and associated lesser fermenters and tanks as might be expected for scale up of a SCP plant, but rather, five 10,000 liter fermenters and associated lesser fermenters and tanks. It is believed this unit was not delivered although definitive evidence is lacking. The key players from Iraq on the negotiating team were the head of botulinum toxin production in 1990, two BW facility engineers and a MIC representative.

Iraq has also developed the capability to produce critical equipment (fermenters, centrifuges, spray dryers, etc.) and to produce critical supplies, e.g., standardized growth media. Interestingly, Iraq only developed standardized media of direct importance to its BW program rather than media types that would have more generalized medical/hospital applications. This effort continued at least through 1998.

It is also noteworthy that Iraq's experienced senior personnel who were active in Iraq's BW program in the 1980s remained intact as a unit throughout the inspection period.

In essence, Iraq retained the personnel for its BW program. It tried to retain equipment and supplies. When UNSCOM forced the acknowledgement of Iraq's BW program and subsequent destruction of equipment, facilities, and supplies, Iraq developed the indigenous capability to produce critical equipment and supplies. Although Al Hakam was completely destroyed, not all production capable equipment in Iraq was destroyed or rendered harmless. Iraq's reluctance to fully and openly declare the full extent of its BW program only enhances the perception that **Iraq still maintains a BW program.**

What impact has UN sanctions had on the (BW) weapons program? Very little! In some respects it has made it more difficult for Iraq to attain critical equipment and supplies, yet in other ways it has had relatively little effect. Even the difficulty to obtain critical supplies is a two-edged sword in that it has forced Iraq to develop an indigenous capability that otherwise might have been ignored. In so doing it has increased the difficulty in obtaining overt evidence of cheating. Iraq tried to maintained the essential elements for its BW program. Having failed in that effort and with increased scrutiny by the world community concerning its imports, Iraq has developed the capability to obtain and/or manufacture critical requirements. There was no restriction to prevent Iraq from developing such capability.

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The UNSCOM resident teams made note of Iraq's development of standardized bacterial growth media, including yeast extract, peptone, tryptone, and casein; all key ingredients in their declared BW program and for any continuing or future BW program. It is worth noting that these media types were the only ones for which standardized protocols were developed, whereas, for medical purposes, these ingredients would be low on the priority list.

Additionally, Iraq developed the capability to manufacture double-jacketed fermenters, spray dryers, and separating centrifuges. An expert team in 1997, which included a senior biologist, a spray dryer production manager from a commercial company, a fermenter production manager formerly with a fermentation supplier company, and centrifuge production experts as well as other engineers, assessed that Iraq was fully capable in expertise and equipment to manufacture acceptable quality items in each of these categories. The development of these items was a large effort that involved more than twelve major establishments under MIC.

Additionally, new equipment and supplies were continuously being seen at sites under monitoring by both resident and non-resident BW teams. Items included state-of-the art laboratory equipment, bacterial growth media, state-of-the-art genetic engineering equipment, and necessary restriction enzymes, etc. Large volume fermenters, centrifuges, and Class III biological safety equipment were imported but were never seen by UNSCOM. Most critical BW supplies and equipment are not difficult to smuggle into a country where the country is an active participant. UNSCOM had ample evidence of the porousness of the embargo. I would not expect sanctions, smart or not so smart, to have any significant deterrent to Iraq's continued development of its BW program.

How has the international opinion of the Iraqi biological weapon threat changed during this time period? After a brief period of concern in 1991, the international community as a whole appeared to have relaxed when no incriminating evidence had been found by the initial two BW inspection teams. This complacency extended through 1994. In 1994, one BW inspection team headed by, at the time, the senior BW specialists of two countries, had concluded that unless a site in Iraq possessed equipment that was attached to a biosafety level III cabinetry system, there was no need to monitor the site. On that basis, no sites within Iraq would have been subject to monitoring. By early 1995, with the accumulating evidence amassed by UNSCOM, most countries were rightly concerned about Iraq's BW capability. At the expert level (leading BW experts including personnel from all P5 members of the UNSC) this level of concern continued through 1998, but at the political/diplomatic level, some countries experts' concern was not reflected in the verbiage and actions by the respective leaders and diplomats. I cite this disparity between the experts and the diplomats because I believe it has implications should inspections resume.

As regards the accuracy and completeness of Iraq's declaration and the likelihood that it was continuing its BW program, nothing has occurred to change the opinion of the experts. Nor does it appear, in spite of the lip-service that is given to getting inspectors back into Iraq, that there has been any material change in the support that an inspection regime might expect from UNSC P5 members. It appears that most of the proposals for getting inspectors back into Iraq is based on the premise that "any inspectors are better than none." To be blunt, that is pure rubbish, just an illusion of inspections. Even while UNSCOM inspectors were still operable, Iraq was constantly trying to restrict monitoring inspectors activities, curb their

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access, and require notification of inspections, even to monitored sites. Such limitations to monitoring would make such a regime a farce; under such circumstances, monitoring inspectors would be worse than no inspectors because it would provide an inappropriate illusion of compliance to the world community. What countries really believe and what they will espouse are most likely two entirely different views. I was told by a senior diplomat in 1998 "it would not matter if you placed a BW-laden Al Hussein warhead that you found in Iraq on the UNSC table, it would not change opinions about lifting sanctions". He added "if the CW and missile files are closed, the world will not care about biology." It appears to me that this may still be the viewpoint of several nations.

The world's press in recent weeks has cited the opposition of most nations in the Middle East and Europe to any action against Iraq. It is cited that Iraq is weakened and does not pose any immediate and significant threat. It seems to me this does not address the terrorist threat posed by Iraq's WMD programs. One would think after 9/11, a more realistic appraisal of Iraq's capability and willingness to use WMD as terrorist weapons would be forthcoming. As I cited above, Iraq's BW program from its inception included a terrorist component.

PRIORITY, PURPOSE AND POWER: To answer these three questions, one must look at Iraq's history from 1990 onward. It obviously considered its BW program extremely high priority given the lengths it went to hiding and preserving the BW capability. Had Iraq made a full disclosure of all its weapons system in 1991, sanctions would have long since been lifted. Why would Iraq still be so secretive about its BW program unless it was considered a high priority. Iraq is convinced that possession of WMD is vital to its national security. Top Iraqi leaders have said that WMD and long range missiles saved them in the Iran/Iraq war and was a deterrent to the coalition forces proceding on to Baghdad. If the BW program has this magnitude of priority, then purpose and power must logically flow from this priority, e.g., it is extremely important for their perceived purpose and for Iraq's or the regime's retention of power.

What priority does the Iraqi leadership place on rebuilding or maintaining this capability? It appears from Iraq's actions to preserve and to enhance its BW program that is among the highest priorities for Iraq. Throughout the BW monitoring phase (late 1994 to December 1998), as cited elsewhere above, Iraq was developing methodologies for indigenous media production and equipment production. These were joint efforts involving many organizations with one thing in common: all were part of MIC and/or were associated with Iraq's BW program prior to 1990. Additionally, Iraq through 1995 was trying to import equipment to greatly expand its BW capability. Iraq also retained its key BW staff intact as a group even after the destruction of the Al Hakam complex. In 1997 and 1998, the work location of additional key senior staff for viruses and genetic engineering could not be determined; Iraqi personnel repeatedly lied about their whereabouts.

What does Iraq consider to be the primary military purpose of a biological weapons arsenal? Officially, UNSCOM was never able to get Iraq to discuss its concept of use for BW agents, alleging that this entailed their national security: if Iraq had renounced and obliterated its BW program, why would this be so? However, a senior Iraqi official told us that it was perceived as a power weapon and would influence its neighbors to see things Iraq's way. When asked, if the program is so secret, how would Iraq's neighbors know Iraq possessed such weapons; his reply, "there are ways to make this known." As cited above, Iraq considers WMD vital to its national security; senior Iraqi

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officials have also repeatedly stated that BW was (and is) a vital armament step at least until it has a fully developed nuclear capability.

Also, clearly, their pursuit of both military and non-military BW programs is indicative of a BW terrorist application as well. Such application would undoubtedly evolve to meet changing situations and can be expected to be retained even after the development of its nuclear capability.

Regional military power, global strategic power? The size of Iraq's BW program and what appeared to be its desires for an expansion of its capabilities still suggests a regional power rather than global aspirations. This perception is also consistent with the "power weapon" concept cited above.

Options and Consequences:

What options does the US have to address the Iraqi biological weapons threat? Several options could be considered, return of inspectors to Iraq or continuation of sanctions, smart or otherwise, as well as various military, diplomatic, and political initiatives. I will principally address the inspectors and sanctions issues.

Inspectors return to Iraq: This is very difficult on which to comment. The success or failure depends too much on uncontrollable elements. What will be the conditions under which the inspectors return? What support will the inspection regime have, given Iraq's recalcitrance and the likely lack of unanimous support in the UNSC? Will Iraq truly cooperate and reveal or destroy all its BW activity? Or will Iraq continue its established pattern of deception, denial, and concealment?

1 **Established pattern of denial and concealment:** I have already detailed above Iraq's denial and concealment of its BW program even after it acknowledged that it had conducted such a program. However, the pattern continued(s), not only through December 1998 but it now appears into 2002 as well. Increasingly, beginning in 1996 Iraq was attempting to portray its BW program as a minimal program conducted by ignorant scientists, although testimony and documentation implied the contrary. Then in 1997, Iraq began to deny significant items to which it had already acknowledged. On 5 August 1998, Iraq's Deputy Prime Minister,Tariq Aziz, reported in a letter to the UNSC: *The programme (sic BW program) was newly established. Its planning was not complete and it lacked the necessary personnel and expertise, particularly in respect of weapons. Because of the lack of specialized senior personnel, it had not become operational.* By Iraq's definition it may not have been "operational" but, by Iraq's own admission, it weaponized at least 157 R400 aerial bombs and 25 Al Hussein warheads, in addition to successfully testing large-scale drop tank delivery and fixed or rotary wing release of BW agents. *The equipment used in the context of the programme could not produce biological agents, and Iraq was not able to import the necessary equipment for this purpose.* Again, it is amazing that the equipment "could not produce biological agents," yet, by Iraq's admission, Iraq produced 19,000 liters of 20x concentrated botulinum toxin and 8,500 liters of 10x anthrax spores. UNSCOM believes the quantity was much larger. Aziz went on to lament that UNSCOM refused to "recognize the truth" of Iraqi statements.

In 1999, Iraq submitted a report to the UNSC in preparation for the UN convened panel to review the status of Iraq's WMD programs which continued this pattern of denial. More recently, an updated version of this report has

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been circulated. It essentially states that it "obliterated its program in 1991 and has met all the requirements for lifting sanctions," yet the world's leading experts have repeatedly disagreed with this statement. **In view of this attitude by Iraq it is extremely doubtful that any inspection regime will or can be successful.**

2 **Monitoring:** Monitoring teams, unlike popular misperception, are not set up for discovery, e.g., finding undeclared sites or completing unfinished proscribed program investigations. Rather these teams were designed to be a deterrent to reconstituting a proscribed program using dual-use equipment at declared sites. In UNSCOM terminology this meant the large-scale military relevant programs; it did not address the very low-scale required for terrorist purposes. Implementation of monitoring by UNSCOM was predicated on Iraq fully and willingly cooperating with UNSCOM; that did not happen. Iraq would only give up and can be expected to give up only what the inspectors can find and prove.

It was also predicated on Iraq providing full and complete disclosure of its proscribed BW program; that did not happen. It was also predicated on Iraq making full and accurate disclosure of all facilities containing dual use equipment and capability; that did not happen.

To be effective, the monitoring system must pose a reasonable risk to Iraq of the monitoring system detecting violations of a significant scale. Even under the best of circumstances it would be almost impossible to detect small scale research, development, and production of BW agents by a State determined to conduct such activities. Without a sense of certainty by Iraq that there would be severe repercussions by a united UNSC, monitoring does not have a chance of true success.

A fundamental requirement for monitoring to be effective depends not only on having highly qualified inspectors but equally important on full support by the UNSC. Past history indicates that Iraq can hinder and in some cases outright block inspectors with impunity and then attempt to blame the incidents on the inspectors. The UNSC does not seem able to equate failure to cooperate with failure to comply.

What would be required for success? The right, accepted again by Iraq and enforced by all members of the UNSC, for immediate, unconditional access to physical locations, personnel, and documents as determined necessary by the inspectorate. Any limitations or conditions on access will produce large reductions in effectiveness and credibility of monitoring. The demand by the UNSC that Iraq provides a complete disclosure of its WMD with supporting evidence that can be verified and not accept the illusion of cooperation as meaning Iraq is in compliance. There must be a harsh penalty for non-compliance that is supported in advance by all P5 members of the UNSC.

Implicit in immediate and unconditional access to sites is a need for short travel times from base locations to sites to be visited. UNSCOM operated from a central site in Baghdad that provided Iraq with several hours unintended notice of inspections when such inspections were at locations in the far western, northern, or southern regions of Iraq. This should be changed for reliable monitoring. As such, additional satellite inspection teams should be established and located on a permanent basis in these outlying regions. This will have significant personnel, logistical, transportation, and financial implications that goes beyond that envisioned by UNMOVIC.

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Another factor of concern with a monitoring system that would have limitations or conditions imposed on it is Iraq's consideration for using mobile production facilities. This was considered (and allegedly discarded) in 1987/1988 when Iraq decided to establish the Al Hakam production facility. A determined Iraq even with a greatly reinforced monitoring system might (if it has not already) reconsider this option. Such a facility on a limited scale would be virtually impossible for monitors to identify; it need not have and is unlikely to have any signatures that would identify it from other transport vans.

Finally, it must be recognized that Iraq has and uses the full resources of a nation state with its centrally directed military industry and security apparatus to deal with a limited number of international inspectors reporting to an international body with shifting goals and attention.

3 **Non-declared sites:** Should Iraq consent to the return of inspectors, it is most unlikely that Iraq would then conduct overt BW activities at declared sites. It therefore follows that Iraq would do everything to prevent or hinder inspection of undeclared sites. Although UNMOVIC is on record as retaining options for undeclared site inspections, the degree that such inspection of an undeclared site would need to go through a series of review procedures before such an inspection could occur may not bode well for its success. The ability for UNMOVIC to keep information from leaking to Iraq is presumed to be no better than UNSCOM; as such, an undeclared visit would be undeclared in name only and only negative findings could be expected.

Continuation of sanctions: I have cited above the inability of sanctions to significantly effect Iraq's BW capabilities. Sanctions might make obtaining key supplies more difficult and require more devious measures but, as has been shown, sanctions will not be a significant deterrence to a BW program, even a military relevant sized program. It is my opinion that sanctions have not had and will not have a significant effect on the Iraqi regime as regards containing its BW program.

Other: I am not in a position to comment on the value of military, political, or diplomatic initiatives.

What are the potential consequences? Should Iraq be allowed to retain its BW (and other WMD programs) it will remain a menace, not only to its neighbors, but to the world at large because of the concomitant instability it would create in the region. The Gulf States would need to judge all their actions in light of the Iraqi threat. The regime is unpredictable. It is already openly supplying support to the Palestinians. Would Iraq even more overtly risk using WMD on Israel? What would be the repercussions from such a foolhardy action? Others are better equipped than I to speak to these matters.

The threat that Iraq's BW program poses as a bioterrorist weapon to any of its perceived enemies is enormous. While much attention is focused on bioterrorism against people, the economic devastation that could be wrecked on the food animal or food crop industry may be far greater in the long term effect. Clearly the greater danger for the US at home and abroad that is posed by Iraq's WMD activities is the potential for its use in terrorism, whether by Iraq directly or through support to terrorist organizations. Should Iraq be involved with using its BW expertise in bioterrorist activities, it may be impossible to find a "smoking gun" that would implicate

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Iraq. BW agents are unlikely to have a signature that will definitively pinpoint a laboratory or a country as the origin.

Concern for BW terrorism is not limited to immediate manifestation of such uses. It is worth recalling Iraq's developing and alleged weaponization of aflatoxin. Such an agent has no military relevant application and would only have relevance where an enemy did not know it was attacked or could not fight back. Iraq has shown a willingness to use CW agents on its neighbor and its own population, might it also have used or intended to use aflatoxin on such defenseless populations? It takes ten years or more for aflatoxin to manifest its carcinogenic and liver damaging effects.

Iraq's BW program in 2002: I intentionally left this discussion to the end because much of the above discussions affect this response. In 1990, as stated above, Iraq's BW program was still in expansion and development. It probably had three bacterial agents, one bacterial toxin, one mycotoxin and one anticrop agent in its arsenal. Although Iraq denies it, Iraq had the equipment and know how to dry BW agents in a small particle that would be highly dispersable into an aerosol. It still retains the necessary personnel, equipment (including spray dryer), and supplies to have an equal or expanded capability in this regard. It has had 12 years to advance its viral capability and, as I have cited elsewhere, this almost certainly includes smallpox as an agent. Even more ominous is Iraq's successful efforts to acquire the necessary equipment and reagents for adding genetic engineering to its BW repertoire. This was particularly alarming because, at the same time, key personnel in Iraq's virus and bioengineering BW program were no longer functional at their stated work locations. There is no doubt in my mind that Iraq has a much stronger BW program today than it had in 1990. Perhaps of most concern would be anthrax and tularemia bacteria and smallpox virus as well as antianimal and anticrop agents.

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GOVERNMENTAL AFFAIRS SUBCOMMITTEE
ON INTERNATIONAL SECURITY, PROLIFERATION
AND FEDERAL SERVICES HEARING ON
U.S. POLICY IN IRAQ: NEXT STEPS
MARCH 1, 2002

QUESTIONS FOR DR. DAVID KAY
FROM SENATOR PETE DOMENICI

Q: Since the President's State of the Union address in which he labeled Iraq as part of the "axis of evil," we have seen the Iraqi's engage the U.N. on the possibility of resuming inspections. Yet in the March 1, 2002, edition of the Washington Times we also see reports that the Saddam is girding for war with the United States.

Clearly, Saddam has never desired to be a legitimate part of the world community, so there is no reason to think his new overtures are sincere now.

How do you reconcile these conflicting actions, and could they be read to mean that Iraq is close to reconstituting one of its weapons of mass destruction programs and is attempting to buy more time to make it operational?

A: I think that the recent actions of Iraq at the UN to appear ready to talk about a resumption of inspections is purely tactical. His purpose is to delay any US military action. I am convinced that Saddam believes that, based on his experience with the US over the last 6 years, US military action against his regime can be relatively easily diverted, or at least limited, by political actions to appear accommodating. I do think that he believes that if he achieves a sufficient WMD capability, which is primarily a function of time, he will be able to raise the price of US military action so high that we will not act and the fear of our allies in the region will ensure that. He certainly appears to be very close to that today.

Q: It is my understanding that only the lack of a sufficient source of fissile material remains as Iraq's most significant obstacle to being able to produce a nuclear weapon.

What is the likelihood that Iraq can import such material and what other critical components might it try to acquire to revive its chemical or biological weapons programs?

A: It is correct to say that the principal limitation on Saddam's nuclear ambitions is the lack of sufficient special nuclear materials. The prospects of his acquiring such materials illegally outside of Iraq are a significant source of worry and far more likely to be successful than in the period before the Gulf War. While the largest source of such material remains in the former Soviet Union, one needs to worry about the leakage of material from the stockpiles of other nuclear powers, such as Pakistan and India. Saddam is able to offer incredible amounts of money for nuclear materials so conditions of corruption and chaos offer him great opportunities. With regard to biological weapons, there is virtually nothing that Iraq needs to continue its weapons programs. Imports of some equipment, fermentations, freeze dryers and aerosol equipment, can increase the speed and efficiency of his program, but all have workable domestic substitutes. The same is largely true for his chemical weapons program.

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GOVERNMENTAL AFFAIRS SUBCOMMITTEE
ON INTERNATIONAL SECURITY, PROLIFERATION
AND FEDERAL SERVICES HEARING ON
U.S. POLICY IN IRAQ: NEXT STEPS
MARCH 1, 2002

RESPONSES BY DR. DAVID KAY
TO QUESTIONS FROM SENATOR JEAN CARNAHAN

Q: Iraq is the only country in the last several decades to use weapons of mass destruction – specifically chemical weapons. However, Iraq is also a supplier of weapons of mass destruction to other countries.

In your estimation, which do you see as a greater threat:

- that Saddam Hussein would use some form of weapons of mass destruction;
- that Iraq would continue to facilitate other countries' mass destruction efforts; or
- that Iraqi weapons of mass destruction capabilities might be provided to a terrorist organization?

A: All three of these possibilities are real and with potentially very serious consequences for the United States and our friends and allies. My personal view is that in the short-term the greatest threat is posed by the threat of use and ultimately use by Saddam Hussein of these weapons if the United States moves militarily to end his regime. If there appears to be movement toward military action, one can expect Saddam to threaten US allies in the region with the most dire of consequences. His motive will be to force our allies out of fear of attack by Iraqi weapons of mass destruction to use their influence on the United States to prevent us from taking action. If US military action does take place with the aim of removing the Saddam regime from power it is reasonable to expect that he will feel himself free of all constraints and use all of his weapons to defend himself and as a final act of revenge. Israel and the United States are likely targets for such attacks. Over the longer run, if Saddam remains in power I do think we have to be seriously worried about Iraq support to terrorist organizations and his supplying them with chemical and biological weapons capability.

Q: It has been more than three years since the UN weapons inspectors left Iraq. It seems unlikely that the Iraqis would allow UN inspectors to return unless they had successfully hidden their weapons of mass destruction activities.

I'd like to know if you agree with that assessment and if so, what, then, would be accomplished by sending inspectors back in?

In addition, what do you see would be the ramifications to our national security posture if UN inspectors do NOT return to Iraq to root out and eliminate Saddam Hussein's weapons of mass destruction programs?

If inspectors are allowed back into Iraq, what would the definition of success be? When would

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we (and by "we" I refer to the UN) know we were done?

A: I fully agree that Saddam would not allow UN inspectors back into Iraq if he thought there were any possibility of their actually finding his weapons of mass destruction. With more than 3 years to hide them, these weapons programs will be very difficult to discover without unlimited rights of inspection and a great deal of time. If inspectors, fully empowered and supported, with the mission of eliminating all of Saddam's weapons of mass destruction programs are not returned to Iraq, there is no alternative to military action to bring this brutal regime to a quick and final end. I hope that we do not underestimate the difficulty, I personally believe impossibility, of ending Saddam's WMD program by inspection alone. The programs have been underway for more than 20 years and are deeply protected by the terror apparatus built by Saddam. Technology has made the production process for chemical and biological weapons smaller and easy to hide and reconstitute. With time, money and political will any inspection process can be eventually overwhelmed. As long as Saddam remains in power, we will never be "done" with the genuine fear of his WMD ambitions and capabilities.

Q: Iraq is not the only nation with dangerous ambitions. I would ask that you put yourself in the shoes of the Iranian or North Korean governments. If it seems that Saddam Hussein can act with impunity and defy international norms, other countries might think they can do the same.

Would we be setting a dangerous or harmful precedent in terms of our relations with other countries we are trying to convince not to develop weapons of mass destruction, such as North Korea?

A: I regret to say that the unwillingness of the international community to act effectively to end Saddam's weapons of mass destruction program - and the apparent desire of some of our close allies and friends to abandon all efforts in that direction - has already embolden regimes such as Iran and North Korea to step up their efforts to develop these efforts. Unless we move quickly to deal with the Threat posed by Saddam's drive for these weapons and show that costs of keeping such weapons is fatal to the regime, we face a near term future of expanded proliferation and far greater risks for us all.

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March 1, 2002, ISPFS Hearing on "U.S. Policy in Iraq: Next Steps."
Questions for the Record

Dr. Richard Spertzel
former head of UN Special Commission (UNSCOM) Biological Weapon Inspections
former Deputy Commander, USAMRIID

Responses to Questions from Chairman Daniel Akaka:

1. **In your testimony, you state that Iraq has developed the capability to obtain and/or manufacture critical requirements, and that there was no restriction to prevent Iraq from developing such capability. What restriction could prevent this activity?** Other than the munitions themselves, equipment and supplies used for a biological weapons research and development program are all dual-use items that could have utility for acceptable peaceful purposes. Therein is one of the major difficulties in monitoring to prevent the illicit application for non-peaceful purposes. Preventing the acquisition of such items from foreign or domestic sources is probably not possible because of the dual use nature of the items. UNSCOM attempted to monitor both the importation of dual-use components as well as the indigenous production of such items.

For import items, SCR 1017 was proposed and passed by the UN Security Council; this resolution is generally known as the export/import mechanism. This resolution called for notifications by Iraq to UNSCOM when ordering and receiving specific items cited in the appropriate annexes. It also called for all UN member states to notify UNSCOM when such orders were received and shipped. This would then enable the monitoring teams to look for such items when they arrived into Iraq. Unfortunately far too much such equipment and supplies were acquired without notifications by either Iraq or compliant UN member States. Even UN organizations such as the UN Food and Agriculture Organization would sometimes ignore the Export and Import Regime and order for and ship to Iraq dual-use items without notification. Additionally, there was a very active black market using the very porous borders of Jordan, Syria and Turkey. Had the Regime been obeyed by all parties it would not have prevented the acquisition of the items but should have and I believe would have subjected such items to active monitoring. Unfortunately, there are no implementable penalties for non-compliance by UN member States (other than for Iraq and any penalties against Iraq would need the support of all P5 members of the UN Security Council).

For indigenous production of dual-use equipment and supplies, Iraq was required to notify UNSCOM of such production capabilities and UNSCOM attempted to monitor such facilities. However, Iraq was not particularly cooperative in this respect and thus it was dependent on UNSCOM learning about such production. Frequently, UNSCOM learned of such production only through intrusive document search inspections which became increasingly difficult to carry out because of lack of support by certain P5 members of the UN Security

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Council. If UNMOVIC inspectors are allowed into Iraq I would expect the level of support by the UNSC and cooperation by Iraq to be less than was given to UNSCOM.

2. **Charles Duelfer, a fellow former biological weapon inspector, stated in testimony before the Senate Armed Services Committee that the biggest challenge confronting Iraqi biological and chemical weapons prospects is advances in warheads and munitions. Do you believe that this is where Iraq will dedicate its energy and resources, or will it continue to improve the agents they have?** Probably both areas. Money never was and is unlikely to be an obstacle to Iraq. The personnel involved in munitions development are not the same scientists involved with agent development and production. For military BW application, better weapons systems are undoubtedly on Iraq's wish list and are likely to being actively pursued. But Iraq is also likely pursuing better agent products to fit the munitions being developed. Additionally, Iraq's "covert" program would be seeking specific agents for specific applications. I believe this covert program is the greatest threat to the US by Iraq.

3. **You discussed the "supergun" several times in your testimony. Could you describe this weapon in more detail and its uses in WMD, specifically in biological warfare?** In the 1980s Iraq contracted with John Bull, a missile scientist, to develop a long range "gun" to fire projectiles from inside Iraq for much further distances than more conventional artillery guns. This has been named the "super gun." Iraq had two versions of the supergun, 350mm and 1,000mm calibre. The Iraqi SuperGun program was developing long-range projectiles for both 350mm and 1,000mm calibre weapons. The drawings of various designs for the 350mm device depict a projectile with a guidance and control section, control surfaces on the fins and a payload of around 20 kg. Plans existed for a 1,000mm calibre weapon that would have had a longer range, and a payload greater than 100 kg. Iraq denies that there was any connection between the BW program and that of the SuperGun. However, this project, like the BW and CW programs, was managed solely by the Military Industrial Commission. Like the BW project, no objective or planning has been acknowledged. The development of this weapon system was well advanced, with several sites being used and plans prepared for new and more versatile weapons. The intended purpose of this weapon was not revealed by Iraq.

A long range delivery system, with its guided projectile, capable of delivering relatively modest pay-loads suggests the use of very potent warheads, such as CW or BW agents, or perhaps radioactive material. The range and payload delivery of the 1,000mm gun are of a similar order to those of the Al-Hussein. Thus the supergun could be used to deliver BW agent-filled projectiles up to a few thousand miles from the relative security of its own borders. It would be principally a threat to its neighbors.

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Dr. Richard Spertzel
former head of UN Special Commission (UNSCOM) Biological Weapon Inspections
former Deputy Commander, USAMRIID

Response to Questions from Senator Pete Domenici

1 Since the President's State of the Union address in which he labeled Iraq as part of the "axis of evil," we have seen the Iraqi's engage the U.N. on the possibility of resuming inspections. Yet in the March 1, 2002, edition of the Washington Times we also see reports that Saddam is girding for war with the United States.

Clearly, Saddam has never desired to be a legitimate part of the world community, so there is no reason to think his new overtures are sincere now.

How do you reconcile these conflicting actions, and could they be read to mean that Iraq is close to reconstituting one of its weapons of mass destruction programs and is attempting to buy more time to make it operational?

Iraq has seemingly continued to send mixed signals to the world concerning return of inspectors to Iraq. Yet, this may be an illusion based on a rosy reading of what Iraq is saying. Iraq will indicate that it is willing to consider the return of inspectors (as Iraq did in meetings with Kofi Annan); but Iraq also caveats its statements with: unconditional lifting of sanctions; inspection of all countries of the Middle East (meaning Israel for which there is no UN mandate); cessation of no fly zones; etc. Thus there may be no actual conflict in Iraq's actions.

Clearly Iraq is stalling for time to fend off any U.S. and U.K. attack. This stalling may or may not be based on its WMD status. Rather, it may be based on gaining time to continue its international diplomatic efforts to forestall any attack by The United States and United Kingdom. In biology Iraq has not ceased in its BW efforts and undoubtedly has ample supply of a few agents. I cannot speak to its nuclear capability.

2. It is my understanding that only the lack of a sufficient source of fissile material remains as Iraq's most significant obstacle to being able to produce a nuclear weapon.

What is the likelihood that Iraq can import such material and what other critical components might it try to acquire to revive its chemical or biological weapons programs?

I can only speak to the biological weapons aspect. Iraq already has adequate fermenter capability to meet its needs for regional use of BW weapons as well as for any terrorist utility. For longer range consideration of BW use, Iraq would have to improve its long range missile capability. The borders of Iraq are so porous that acquiring whatever critical components it might lack for BW or CW would not be a hindrance.

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Responses to Questions from Senator Jean Carnahan:

1. **Iraq is the only country in the last several decades to use weapons of mass destruction - specifically chemical weapons. However, Iraq is also a supplier of weapons of mass destruction to other countries.**

In your estimation, which do you see as a greater threat: ; that Saddam Hussein would use some form of weapons of mass destruction; ; that Iraq would continue to facilitate other countries' mass destruction efforts; or ; that Iraqi weapons of mass destruction capabilities might be provided to a terrorist organization? Iraq considered the possession of BW Weapons as a "power weapon." the possession of which would lead its neighbors to "see events its way." If it suited Iraq's purpose du jour, Iraq would certainly use whatever WMD at its disposal. During the Gulf War (1991). the field commanders had the authority to use whatever weapons including WMD at their disposal if communications were lost with Baghdad. To my understanding that was never the case with the United States or the Soviet Union. However, I believe the greatest threat to the United States arising from Iraq's BW program is in terrorist application, either from just being made available to terrorist organizations or more direct involvement by Iraq. The attractiveness to Iraq in providing BW weapons material to terrorist organizations is the difficulty in finding a smoking gun that would indicate Iraq's involvement.

2. **It has been more than three years since the UN weapons inspectors left Iraq. It seems unlikely that the Iraqis would allow UN inspectors to return unless they had successfully hidden their weapons of mass destruction activities. I'd like to know if you agree with that assessment and if so, what, then, would be accomplished by sending inspectors back in?** The situation by which Iraq would allow inspectors to return is very complex. Certainly Iraq will not allow inspectors back unless it believes the inspectors cannot find anything incrimination. This could be because Iraq believes it has successfully hidden its program but could also relate to the conditions for the inspectors return. If the inspectors are hamstrung by restrictions and limitations to the extent that the inspections are according to the dictum of Iraq and hence a sham, then Iraq has nothing to lose by allowing inspectors to return. As I have testified, unless the inspectors have the full support (and not just lip service) of all P5 members of the UN Security Council and have authority to conduct unannounced inspections, anywhere, anytime in Iraq inspectors have no chance of success. I believe this authority and support is most unlikely to be forthcoming.

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In addition, what do you see would be the ramifications to our national security posture if UN inspectors do NOT return to Iraq to root out and eliminate Saddam Hussein's weapons of mass destruction programs? For the reasons cited above and elsewhere I believe the return of the inspectors to Iraq has little relation to our national security posture because I believe they will not be allowed to be effective in finding and eliminating Iraq's WMD programs. Beginning circa October 1996 UNSCOM had ever-lessening support and backing by the UNSC; from October 1997, UNSCOM had virtually no support from the Council. When we were in Iraq, we inspectors felt that we were alone with no support; Iraq was aware of the lack of support and exploited this lack of support to continually thwart the inspectors. Iraq is in a stronger position of support at the UN today than it was in 1998.

If inspectors are allowed back into Iraq, what would the definition of success be? According to some P5 members, success would be "Iraq's cooperation." Iraq is skillful in feigning cooperation which would be a sufficient allusion for some UN member States to insist sanctions be lifted. In reality nothing was accomplished and Iraq could and would retain its pet weapons.

When would we (and by "we" I refer to the UN) know we were done? As long as the ruling regime is determined to obtain, develop and retain WMD monitoring inspections would never be complete. The effectiveness of monitoring, no matter what conditions existed upon their return, would diminish with time and eventually become irrelevant.

3 **Science and Technology seem to advance by leaps and bounds on a daily basis. I would think that in the past several years our experts might have learned something new in terms of means to detect hidden stores of biological agents, for example.** Biological agents are odorless, colorless and tasteless. Thus technology to detect hidden stores will be far more difficult to develop than for chemical agents.

With your extensive experience, can you explain to the Subcommittee if there are any new technologies that are being developed that could assist UN monitors in uncovering proof positive of Iraq's weapons' programs. There are no technologies at the present time that could be provided to BW inspectors to locate hidden stashes of BW weapons.

What are we lacking today, in terms of different means to detect signatures of weapons of mass destruction production and development? Again, speaking only to the BW weapons aspect, there are no methodologies to detect an unknown BW production and development site. Thus in this respect everything is lacking. If it is a dual-use monitored site for which unannounced inspections were conducted then technologies such as polymerase chain reaction could be used to detect illicit work on weapons agents. However, with sufficient notice and careful clean up by knowledgeable personnel, nothing may be found. Detection and monitoring of illicit BW activities is extremely difficult under the best of circumstances.

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Appendix

Background:

Iraq used chemical weapons (CW) against Iran during the Iran-Iraq war in the 1980's and against its own people in the Anfal campaigns of the late 1980's. UNSCOM reports indicate that Iraq had plans to use CW in the Gulf War until it was deterred by the threat of retaliation from the U.S.-led coalition.

In April 1991 the United Nations Security Council established the cease-fire conditions for the conflict in the Persian Gulf. Iraq accepted U.N. Security Council Resolution (UNSCR) 687, which required the destruction or neutralization of 1) all nuclear, chemical, and biological weapons, and 2) all ballistic missiles with a range over 150 km (90 miles). UNSCR 687 prohibits Iraq from future development, production, or use of such weapons. The U.N. Special Commission (UNSCOM) was created to monitor and verify Iraqi compliance with disarmament requirements.

U.N. inspections between 1991 and 1998 dismantled much of Iraq's missile holdings and WMD production capabilities. Operation Desert Fox in December 1998 struck Iraq's remaining missile production capabilities. During seven years of inspections, the Iraqi government made many declarations concerning the volume and disposition of its chemical weapon and biological weapon (CBW) programs. In March 1998 an independent international panel of experts judged Iraq's 1997 CBW declarations to be "incomplete, inadequate, and technically flawed."

Since Operation Desert Fox, Iraq has refused to allow U.N. inspectors into Iraq. Although U.N. Security Council Resolution 1284, adopted in December 1999, established a follow-on inspection regime to the UNSCOM in the form of the U.N. Monitoring, Verification, and Inspection Committee (UNMOVIC), there have been no U.N. inspections. Moreover, the automated video monitoring system installed by the U.N. at known and suspect WMD facilities in Iraq, has been dismantled by the Iraqis. Having lost this on-the-ground access, it is difficult for the U.N. or the U.S. to assess accurately the current state of Iraq's WMD programs.

Iraq is currently under U.N. sanctions that controls its imports, determines how it uses its oil revenues, and prohibit the sale or transfer of weapons and dual-use technology to Iraq. Iraq retains significant capabilities to design and build long-range missiles, and biological and nuclear weapons. Although UNSCOM and the International Atomic Energy Agency (IAEA) succeeded in destroying much of it capabilities, and virtually all of its fissile material production facilities, Iraq has retained the capability and is permitted to build missiles with ranges of 150 km or less. Iraq has exploited this situation to develop facilities which can rapidly be converted to the production of longer-range missiles. Iraq continues to try to import dual-use components that can be used in the production of nuclear weapons, and much of its biological weapons equipment has never been found. Iraq has rebuilt key portions of its chemical production infrastructure for industrial and commercial use.

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Iraq and al Qaeda:

Iraq is one of seven countries designated by the U.S. State Department as a state sponsor of terrorism, mostly of Palestinian groups such as Hamas and Palestine Islamic Jihad. The State Department's annual report, "Patterns of Global Terrorism – 2000," does not list al Qaeda as one of the groups Baghdad supports.

The Pentagon set up a unit shortly after September 11th to scan years of highly classified intelligence reports to find links between groups supported by Iraq and Bin Laden's al Qaeda network. In a January 24, 2002, press report, officials said the Pentagon investigation of "linkage" is turning up ties between radical groups in the Middle East who are supported by Hussein and al Qaeda. However, these connections may be run through business fronts rather than through the government. Iraqi intelligence runs several business fronts.

This effort is stirring debate inside the administration because it goes against the intelligence community's long-held contention that most terror groups work independently of each other, and "there is a looming battle between the Pentagon and State and CIA over the issue of how elaborate the linkages are among terrorist organization and between terror organizations and states."[1]

The CIA has no evidence that Iraq has engaged in terrorist operations against the United States in nearly a decade, and the agency is also convinced that President Hussein has not provided chemical or biological weapons to al Qaeda or related terrorist groups, according to several American intelligence officials.[2] Director of Central Intelligence Tenet testified Wednesday, February 6, 2002, before the Senate Select Committee on Intelligence, that Hussein has been reluctant to use terrorism for fear of being detected, and focuses most of his resources on finding ways to evade trade and economic sanctions.

Undersecretary of State John Bolton told CNN on Thursday, January 24, 2002 that "I don't have any doubts that al Qaeda was pursuing nuclear, biological and chemical warfare capabilities ... It underlines just how serious the threat of the use of these weapons of mass destruction could be, and why it's such an important part of the global campaign against terrorism." Investigations are continuing into the information recovered from al Qaeda camps in Afghanistan and into how close the group was to gaining nuclear and biological capabilities.

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[1] Scarborough, R., 'U.S. Seeks Al Qaeda Link to Iraq', *Washington Times*, 14 January, 2002, p. 1.

[2] Risen, J., 'Terror Acts by Baghdad Have Waned', *New York Times*, 6 February 2002, p.A10

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Overview of Iraqi Nuclear, Biological, Chemical and Missile Programs:

Nuclear: Iraq had a comprehensive nuclear weapons development program prior to the Gulf War. The nuclear weapon infrastructure suffered considerable damage from Coalition bombing and IAEA dismantlement. However, Iraq retains scientists, engineers (about 7,000), and nuclear weapon design information.

Iraq has ratified the Non Proliferation Treaty (NPT) but has not signed the Comprehensive Test Ban Treaty (CTBT).

On January 30, 2002 an IAEA team completed inspections of safeguarded nuclear material at the Tuwaitha facility in Iraq. The inspections were carried out under Iraq's safeguards agreement with the IAEA per ratification of the NPT. IAEA conducted similar safeguards inspections in Iraq in January 2000 and January 2001. The team's activities were limited to verifying stocks of low-enriched, natural, and depleted uranium sealed under IAEA safeguards. These activities were not related to the inspections in Iraq mandated by U.N. Security Council; these inspections, which grant IAEA broader inspections rights, ceased in December 1998 and have not resumed. IAEA Director General Mohamed ElBaradei said, "a number of questions and concerns remain regarding Iraq's past nuclear program, and it remains important to clarify them." He said that IAEA stands ready at short notice to resume its inspection activities in Iraq under UNSCR 687, 1284 and related resolutions.

Biological: Iraq produced and weaponized significant quantities of biological warfare agents prior to the Gulf War. After four years of denial, Iraq admitted to biological warfare effort in 1995 after Iraqi defectors forced the acknowledgment. According to UNSCOM, Iraq imported 34 tons of growth media for producing biological agents during the 1980's, of which 4 tons remain unaccounted for. Information released by the U.N. and U.S. and British governments indicates, prior to the Gulf War, Iraq produced 8,400 liters of anthrax, 19,000 liters of botulinum toxin, and 2,200 liters of aflatoxin.

Iraq claims to have destroyed all biological warfare agents. Iraq has offered no proof and their claim has been rejected by both UNSCOM and western intelligence agencies. It is believed that Iraq may retain undetermined amounts of Ebola virus, bubonic and pneumonic plague bacteria, and the toxin ricin

Iraq has acknowledged that prior to the Gulf War it manufactured 100 botulinum bombs, 50 anthrax bombs, and 7 aflatoxin bombs. In addition, 25 missile warheads were filled with biological agents.

As a condition of the 1991 Gulf War cease-fire agreement, Iraq signed and ratified the Biological Weapons Convention.

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Chemical: Prior to the Gulf War, Iraq produced 3.9 tons of VX persistent nerve agent and unspecified amounts of the nerve agent Sarin and the blister agent mustard gas. Since 1991, UNSCOM inspectors in Iraq have overseen the destruction of 40,000 chemical munitions, 690 metric tons of chemical warfare agents, 3,000 metric tons of CW precursor chemicals, and 490 pieces of CW production equipment.

Iraq has rebuilt some of its chemical production infrastructure allegedly for commercial use. UNSCOM discovered evidence of VX nerve agent in missile warheads in 1998, despite Iraqi denials for seven years that it had not weaponized VX. Essential CW production equipment remains unaccounted for. The fate of about 31,600 chemical munitions, 550 mustard gas bombs, and 4,000 tons of chemical precursors, remains unknown.

Iraq has not signed the Chemical Weapons Convention.

Missile: UNSCOM inspectors have overseen the destruction of 819 Russian-supplied SCUD ballistic missiles, 19 mobile missile launchers, and 30 CBW missile warheads. British intelligence believes that up to 10 SCUD missiles capable of carrying CBW warheads remain hidden and UNSCOM could not account for 40-70 CBW-capable missile warheads.

Iraq continues to pursue development of short range ballistic missile (SRBM) systems. Authorized pursuit of U.N.-permitted missiles allows Iraq to develop technological improvements and infrastructure that could be applied to a longer-range missile program. Development of the liquid propellant Al-Samoud SRBM is maturing and a low-level operation capability could be achieved in the near term. The solid-propellant missile development program may now be receiving a higher priority.

Iraq has continued working on its L-29 unmanned aerial vehicle (UAV) program, which involves converting L-29 jet trainer aircraft originally acquired from Eastern Europe. Iraq may have been conducting flights to test system improvements. These refurbished aircraft are believed to have been modified for delivery of chemical or biological warfare agents.

Policy Options:[3]

Several different policy options have been discussed by experts. These include:

1. **Broad Containment** – the existing U.S. policy consists of a four part strategy to prevent Iraq from threatening vital U.S. interests. These four parts are: weapon inspections, sanctions, no-drive and no-fly zones, and the threat of use of force. This policy has

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[3]P. Clawson, "Iraq Strategy Review: 5 Options for U.S. Policy."

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proven more durable than expected and has accomplished much with fewer risks and potential costs than alternative policies. Steps that could be taken to reinforce the policy's four key points include:

- Shoring up U.N. weapons inspections by including a more diverse staff and resisting efforts to politicize UNMOVIC;
- Keeping tight restrictions on Iraqi imports and closing the loopholes for oil exports via Iranian waters, Turkey, and Jordan;
- Extending the no-fly and no-drive zones; and
- Developing and announcing a credible policy on when and how force will be used.

2. **Narrow Containment** – acknowledge that the current broader range of constraints on Iraq cannot be sustained and focus instead on restricting Iraqi miliary capabilities. The U.S. would rely on a smaller coalition of states, rather than on the U.N., and focus on the most important restriction on Iraq. This approach would be a fall-back position that could be sustained as long as Hussein is in power if it appears broad containment is unlikely to last much longer. A narrower coalition would be created among states willing to act in the absence of a U.N. imprimatur and to support all necessary measures, including the use of force. The U.S. would need Kuwait's support, though Saudi Arabian, Turkish, and Jordanian support would be extremely beneficial, as well as support from it closest allies, Britain and Japan.

3. **Undermining the current regime** – supporting the Iraqi opposition to weaken if not destabilize the current regime to the point that it is ousted. Support for the opposition would require:

   - Helping to rebuild the opposition by working with the Iraq National Congress (INC), bolstering regional opposition groups (such as Kurdish groups in the North and Shi'i groups in the South) or stimulating creation of a new opposition;
   - Establishing safe havens from which the opposition can operate, using either Kuwait, or with Turkish support, Kurdish northern Iraq;
   - Convincing Hussein's closest advisors and aides to turn against the regime;
   - Providing the opposition with considerable military assistance, including an air umbrella against Iraqi attacks; and
   - Running interference for the opposition in the diplomatic arena while simultaneously keeping Hussein tightly contained.

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- The U.S. might consider an explicit policy of overthrowing Hussein, replacing him with a pluralist, pro-Western opposition.

4. **Deterrence** – preventing Iraqi use of force, without the current level of emphasis on restricting Iraqi military capabilities. By accepting that Hussein is likely to remain in power and that U.N. sanctions can be sustained only at a high political price, the U.S. would deemphasize Iraq as a foreign policy issue. Should Iraq use military force or terrorist against U.S. allied or interests, the U.S. would respond with swift and intense military force. Rather than emphasize a special arms control regime for Iraq, U.S. diplomacy would deal with the Iraqi problem in the context of a global counterproliferation strategy.

5. **Invasion and Occupation** – the most ambitious U.S. option, might require a significant Iraqi provocation and strong congressional and U.S. public support, active cooperation from key regional allies, and at least tolerance from the broader international community.

Complications posed by possibility of chemical or biological weapons:

During the standoff over UNSCOM inspections in late 1997, the question of military action against suspected CBW sites arose. The debate over the advisability of airstrikes highlighted two significant challenges in efforts to eliminate Iraq's CBW arsenal: 1) the great difficulty of locating and destroying CBW stocks through air power alone, and 2) the relative ease of reconstituting a CBW production program after such attacks. Terrorist use would be proportionately easier because of the small amounts of material needed and not needing a sophisticated delivery systems, such as missiles. A third concern regarding airstrikes is the probability that CBW agents would be released in the air as a result of bombing, causing collateral casualties. Factors such as the type of CBW agent, type of munition, target location, population density, wind, humidity, level of sunlight, and temperature will determine the spatial and time extent of the contamination.

Summary of Intelligence Estimates of Iraq Threat

CIA Estimate of Iraqi Threat, per Unclassified Report to Congress on the Acquisition of Technology Relation to Weapons of Mass Destruction and Advanced Conventional Munitions, 1 July Through 31 December 2000, Report of September 2001:

Since Operation Desert Fox in December 1998, Iraq has refused to allow U.N. inspections as required by Security Council Resolution 687. Automated video monitoring system installed by the U.N. at known and suspect WMD facilities in Iraq is no longer operating.

UNSCOM reported to the Security Council in December 1998 that Iraq continued to withhold information related to its CW program. Iraq's domestic chemical weapons production capabilities are largely intact. At least 30 facilities have infrastructure that could be reconfigured for weapons production. Iraq has the experience and know-how in large-scale production of chemical weapons agents and sufficient qualified personnel with practical experience in research

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and development on, and the industrial production of, CW agents. It is also thought that Iraq retains a broad array of chemical-weapons-related items such as precursor chemicals, production equipment, filled munitions, and program documentation. UNSCOM estimated that, under current circumstances, Iraq would be able to organize the production of chemical agents through reconfiguration or relocation of available dual-use material within several days or weeks.

In 1995, Iraq admitted to having an offensive BW program. Disclosures submitted to U.N. were incomplete and filled with inaccuracies. UNSCOM had assessed that Iraq continued to maintain a knowledge base and industrial infrastructure that could be used to produce a large amount of BW agents and means of delivery. Iraq has biotechnology research and development capabilities in medical, veterinary, and university facilities. Some of these facilities are staffed likely by former members of Iraq's biological warfare program. Much of the laboratory equipment is dual-use and could be used for biological agent development. With the equipment Iraq is known to possess, 350 liters of weapons-grade anthrax could be produced each week, according to Iraq's own production figures.

Iraq has probably continued low-level theoretical R&D for its nuclear program. A sufficient source of fissile material remains Iraq's most significant obstacle to being able to produce a nuclear weapon.

Pursuit of U.N.-permitted missiles continues to allow Iraq to develop technological improvements and infrastructure that could be applied to longer-range missiles. If economic sanctions against Iraq were lifted, Baghdad probably would increase its attempts to acquire missile-related items from foreign sources, regardless of future U.N. monitoring and long-range missile restrictions.

A July 2001 U.N. Security Council vote failed to approve revised import controls on Iraq drafted by the U.S. and U.K.. Russia, in refusing to do more than extend the current oil-for-food program, was portrayed as reasserting itself internationally, sending a message to the West that it was "starting to think of its own interests." In the Middle East, sanction foes sarcastically railed against both "smart" and "dumb" sanctions and celebrated an Iraqi "victory". Only in Kuwait was there notable editorial support for the U.S./UK initiative.

Useful publications:

GAO Report: "Coalition Warfare: Gulf War Allies Differed in Chemical and Biological Threats Identified and in Use of Defensive Measures," (24-APR-01, GAO-01-13)

GAO Report: "Iraq: U.S. Military Items Exported or Transferred to Iraq in the 1980s,"(Letter Report, 02/07/94, GAO/NSIAD-94-98)

CRS Issue Brief: "Iraq: compliance, sanctions and U.S. policy;"updated Jan. 31, 2002 (product number IB92117)

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CRS Issue Brief: "Iraq-U.S. confrontation,"updated Jan. 18, 2002 (product number IB94049)

CRS Issue Brief: "Iraq: oil-for-food program and international sanctions," updated July 10, 2001 (product number RL30472)

P. Clawsen, "Iraq Strategy Review: 5 Options for U.S. Policy," (summary available at http://www.washingtoninstitute.org/pubs/iraqintro.htm)

A. Cordesman, "If We Fight Iraq: Iraq and its Weapons of Mass Destruction," revised November 26, 2001 (available at http://www.csis.org/burke/fightiraq_mb013102.pdf)

A. Cordesman, "The Military Balance in the Gulf, Part III, Weapons of Mass Destruction," January 23, 2002 (available at http://www.csis.org/burke/mb/GulMilBaliii012302.pdf)

Useful Websites:

Center for Nonproliferation Studies (CNS) http://cns.miis.edu/research/mideast.htm

Wisconsin Project "Iraq Watch" http://www.IraqWatch.org

The Middle East Institute http://www.TheMiddleEastInstitute.org

Infowar.com http://www.infowar.com/wmd/wmd.shtml

Nuclear Control Institute http://www.nci.org/

The Washington Institute for Near East Policy http://www.washingtoninstitute.org/

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UNITED STATES POLICY IN IRAQ: NEXT STEPS

HEARING

BEFORE THE

INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES SUBCOMMITTEE

OF THE

COMMITTEE ON GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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