THE DISTRICT OF COLUMBIA'S YEAR 2000 COMPLIANCE CHALLENGE

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON THE DISTRICT OF COLUMBIA

AND THE

SUBCOMMITTEE ON GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY

OF THE

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

AND THE

SUBCOMMITTEE ON TECHNOLOGY

OF THE

COMMITTEE ON SCIENCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

OCTOBER 2, 1998

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THE DISTRICT OF COLUMBIA'S YEAR 2000 COMPLIANCE CHALLENGE

FRIDAY, OCTOBER 2, 1998

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON THE DISTRICT OF COLUMBIA, JOINT WITH THE SUBCOMMITTEE ON GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY, COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT, AND THE SUBCOMMITTEE ON TECHNOLOGY, COMMITTEE ON SCIENCE,

Washington, DC.

The subcommittees met, pursuant to notice, at 1:35 p.m., in room 2318, Rayburn House Office Building, Hon. Tom Davis of Virginia (chairman of the Subcommittee on the District of Columbia) presiding.

Present: Representatives Davis of Virginia, Morella, Norton, Kucinich, Maloney of New York, Gutknecht, Rivers, and Barcia.

Staff present: Peter Sirh, staff director; Ellen Brown, clerk; Anne Barnes and Bob Dix, professional staff members, Subcommittee on the District of Columbia; J. Russell George, staff director and chief counsel; Matthew Ebert, clerk; Mason Alinger, staff assistant, and John Bouker, minority counsel, Subcommittee on Government Management, Information, and Technology; and Benjamin Wu, professional staff member; and Mike Bell, clerk, Subcommittee on Technology.

Mr. DAVIS of Virginia. Good afternoon. Welcome.

Today, I'm honored and pleased to be holding this important oversight hearing dealing with the District of Columbia's Y2K challenge with my two distinguished colleagues, Mr. Horn, who's chairman of the Subcommittee on Government Management, Information, and Technology, and Connie Morella, the chairwoman of the Subcommittee on Technology.

Congressman Steve Horn and Congresswoman Connie Morella provide extraordinary leadership in their subcommittees. They've also accepted the challenges as members of the District of Columbia Subcommittee, and of cochairing the House Y2K Task Force. Both Mr. Horn and Mrs. Morella have conducted numerous field hearings around the country, a number of which I have been privileged to attend. Few people in the country understand the magnitude and complexity of this national and international issue more than these dedicated leaders.

I also want to welcome my distinguished colleague from the District of Columbia Subcommittee, Ms. Norton, and acknowledge her continued leadership on behalf of the people of the District of Columbia.

The year 2000 computer problem presents an enormous challenge for this Nation. It's a management issue of the magnitude that may never have confronted public agencies, private businesses, or the American people ever before. The problem is not new. The requirement to address this matter has been known for years. However, many decisionmakers mistakenly believe that affected systems and devices would be sufficiently replaced with new technology in advance of the dates when the year 2000 issues would become a reality.

Simply put, many computers and other electronic devices are programmed to use only two digits to represent each year. As a result, many computer systems will not be able to differentiate between the year 2000 and the year 1900. In the 1970's and 1980's, it was common practice to program computers using two-digit dates to save costly computer storage space. Even in the 1990's, old habits are regularly demonstrated. Two-digit dates abound in mainframe, client/server, desktop, and process control systems. Programmers and managers making decisions to continue to use two-digit dates obviously failed to recognize, or acknowledge, the magnitude of the issues that the year 2000 problem would create.

In fact, it has only been recently that an increased recognition and attention has been given to the fact that process controllers with embedded computer chips also present a significant year 2000 challenge. This is because microprocessors have been programmed with the same two-digit year, and are therefore subject to the same failure potential.

Government agencies face a unique Y2K problem. Not only does the year 2000 matter require a plan for remediation and testing of all critical systems and processes, but it must be done in a manner so as to insure that there is a continued and uninterrupted delivery of services.

The District of Columbia, as is the case with other local and State governments, is responsible for ensuring the health, safety, and economic vitality of its residents. To accomplish this, efforts must be taken to minimize the risk of failures in both the government and business environments, which include contingency planning for possible failures. Many of these activities are interdependent, and in far too many instances, the recognition level of the potential ramifications is inadequate.

Given the complexities of the issue itself, the unique nature of the relationship between the District of Columbia and the Federal Government, and the important economic role of the District of Columbia within the Washington metropolitan region, our attention is drawn in a special way to the Y2K challenges that confront the District. The regional compacts which exist among various governmental entities requires us to examine these matters in a more comprehensive fashion. Examples include the D.C. Water and Sewer Authority and the Metropolitan Washington Area Transit Authority.

Regional agreements dealing with emergency response and emergency preparedness, along with several health and human service activities, just reinforce the need to work together to insure, to the extent possible, that none of these important public services are jeopardized. Additionally, the transportation and public safety ac-

tivities which are critical to the ability of the Federal agencies to function efficiently, must be maintained.

On March 18, 1998, I requested that the U.S. General Accounting Office conduct a review of the District of Columbia's effort to ensure compliance with the year 2000 challenge. I was concerned then, and I remain concerned, about the ability of the District of Columbia to meet the Y2K challenge in an effective and timely manner.

I might add that Dr. Barnett called to our attention early when she uncovered, and came right up to us and talked to us, and instead of hiding it, or trying to cover it up, said, we have a problem. And that has lured us to try to get as much help for the city as we can as we move forward. Part of the solution is recognizing the problem. So, I commend you for that.

On June 17, 1998, the GAO reported to our subcommittee that the District of Columbia faces serious problems in ensuring that vital services are not disrupted by the year 2000 challenge. Two other previous reviews of the District of Columbia Y2K status, one conducted by KPMG as part of the fiscal year 1997 financial statement audit report and one conducted in January 1998 by the District of Columbia inspector general, found significant deficiencies in the District's readiness mechanisms to address the Y2K challenge.

The District has responded to the subcommittee's request and GAO's inquiry, by taking a number of important actions that I hope we will hear about in some detail today. There are, however, significant risks which are the result of the late entry of the District into these necessary preparations, because many of their efforts will be conducted simultaneously. While many entities conduct a comprehensive system assessment, which are followed by the development and implementation of a remediation plan, and then by testing activities, the District is confronted by the enemy of time and will have no choice but to pursue much of the remediation and testing efforts simultaneously. This, of course, potentially has explosive ramifications which could threaten not only the ability of the District of Columbia to provide uninterrupted services, but also the ability, among other things, of the Federal work force to get to their places of employment.

Our subcommittee has worked closely with the new chief technology officer and the city's new chief management officer to identify these impediments, and will continue to do that.

I'm going to ask unanimous consent that the rest of my statement be included in the record.

[The prepared statement of Hon. Thomas M. Davis follows:]

SUBCOMMITTEE ON THE DISTRICT OF COLUMBIA

Honorable Tom Davis
Chairman

OVERSIGHT HEARING

Oversight Hearing on the Status of the District of Columbia's Year 2000 Compliance Effort

October 2, 1998
1:30 p.m.

Room 2318
Rayburn House Office Building

OPENING STATEMENT

Good afternoon and welcome. Today, I am particularly honored and pleased to be joined by two of my distinguished colleagues, Mr. Horn, Chairman of the Subcommittee on Government Management, Information and Technology, and Mrs. Morella, Chairwoman of the Subcommittee on Technology, in sponsoring this important oversight hearing dealing with the District of Columbia's Y2K challenge. Congressman Steve Horn and Congresswoman Connie Morella provided extraordinary leadership in their subcommittees, and also accepted the challenge of co-chairing the House Y2K Task Force. Mr. Horn and Mrs. Morella have conducted numerous field hearings around the Country, a number of which I have been privileged to attend. Few people in this country understand the magnitude and complexity of this national and international issue more than these dedicated leaders.

I also want to welcome my distinguished colleague from the D. C. Subcommittee, Mrs. Norton, and acknowledge her continuing leadership on behalf of the citizens of the District of Columbia.

The Year 2000 computer problem presents an enormous challenge for this Nation. It is a management issue of the magnitude which may never have confronted public agencies, private businesses or the citizens of American people ever before. The problem is not new. The requirement to address this matter has been known for years. However, many decision makers mistakenly believed that affected systems and devices would be sufficiently replaced with new technology sufficiently in advance of the dates when the Year 2000 issues would become a reality.

Simply put, many computers and other electronic devices are programmed to use only two digits to represent each year. As a result, many computer systems will not be able to differentiate between the year 2000 and the year 1900. In the 1970's and 1980's, it was common practice to program using two-digit dates to save costly computer storage space. Even in the 1990's, old habits are regularly demonstrated: two-digit dates abound in mainframe, client/server, desktop, and process control systems. Programmers and managers making decisions to continue to use two-digit dates obviously failed to recognize, or acknowledge, the magnitude of the issues that the Year 2000 problem would create.

In fact, it has only been recently that an increased recognition and attention have been given to the fact that process controllers with embedded computer chips also present a significant Year 2000 challenge. This is because microprocessors have been programmed with the same two-digit year and are therefore subject to the same failure potential.

Government entities face a unique Y2K challenge. Not only does the Year 2000 matter require a plan for remediation and testing of all critical systems and processes, but it must be done in a manner so as to insure that there are a continued and uninterrupted delivery of services. The District of Columbia, as is the case with other local and state governments, is responsible for ensuring the health, safety and economic vitality of all of its residents. To accomplish this, efforts must be taken to minimize the risk of failures in both the government and business environments, which included contingency planning for possible failures. Many of these activities are interdependent, and in far too many instances, the recognition level of the potential ramifications is inadequate.

Given the complexity of the issue itself, the unique nature of the relationship between the District of Columbia and the federal government, and the important role of the District of Columbia within the Metropolitan Washington region, our attention is drawn in a special way to the Y2K challenges that confront the District. The regional compacts which exist among various governmental entities require us to examine these matters in a more comprehensive fashion. Examples include the D. C. Water and Sewer Authority, and the Metropolitan Washington Area Transit Authority. Regional agreement dealing with emergency response and emergency preparedness, along with several health and human services activities, reinforces the need to work together to insure to the extent possible that none of these important public services are jeopardized. Additionally, the transportation and public safety activities which are critical to the ability of the federal agencies to function efficiently, must be maintained.

On March 18, 1998, I requested that the United States General Accounting Office conduct a review of the District of Columbia's efforts to ensure compliance with the Year 2000 challenge. I was concerned then, and I remain concerned today, about the ability of the District of Columbia to meet the Y2K challenge in an effective and timely manner.

On June 17, 1998, the GAO reported to our Subcommittee, that the District of Columbia faces serious problems in ensuring that vital services are not disrupted by the Year 2000 challenge. Two other previous reviews of the D. C. Y2K status, one conducted by KPMG as part of the fiscal year 1997 financial statement audit report and one conducted in January 1998 by the D. C. Office of the Inspector General, found significant deficiencies in the District's preparedness effort to address the Year 2000 challenge.

The District has responded to the Subcommittee's request and GAO's inquiry, by taking a number of important actions, about which I hope we will hear in some detail today. There are significant risks which are the result of the late entry by the District into this effort in any meaningful way, because many of their efforts will be conducted simultaneously. While many entities conduct a comprehensive system assessment, which followed by the development and implementation of a remediation plan and then followed by testing activities, the District is confronted by the enemy of time, and will have no choice but to pursue much of the remediation and testing efforts simultaneously. This potentially has explosive ramifications which could threaten not only the ability of the government of the District of Columbia to provide uninterrupted services but also the ability, among other things, of the Federal workforce to get to their places of employment.

My Subcommittee has worked closely with the new Chief Technology Officer and the City's Chief Management Officer to identify any impediments to the District's ability to achieve successful results in addressing this challenge, and I believe that with the commitment of the Control Board, the City Council, and others, that we can collectively improve the potential for a positive result, while minimizing the risk of a less desirable outcome. Following today's hearing, we will look at the results and progress to clearly understand the status of the District's Y2K plan development and implementation, and then pursue an oversight strategy that will keep us all informed of their progress. Utilities, communications, health services, transportation and public safety, are but a handful of the areas that will require specific strategies and oversight.

I anticipate that early in 1999, we will conduct another oversight hearing to examine the status of these efforts. I look forward to the testimony of our witnesses today and hope that we all are able to learn much from this hearing so that we can effectively move forward.

Mr. DAVIS of Virginia. I'm going to yield now to my colleague, Ms. Norton, for any statement she may make.

I have to go vote on the House floor, so I'm going to yield to Ms. Norton who may chair the meeting while I go over to the House floor. Then Mr. Barcia can make a comment, and we'll continue the testimony. When we get back, we can get right to the questions, so we don't have to delay the hearing.

We have read your comments in advance and have questions prepared. Please take your time, and read your statements for the permanent record. If you want to abbreviate it, you can do that also; the whole statement will be in the record.

Ms. Norton.

Ms. NORTON. Thank you, Mr. Chairman. I want to thank the chairs of the three subcommittees participating today, Tom Davis, Connie Morella, and Stephen Horn, for working together for this hearing on the District's progress in meeting the year 2000, or Y2K, computer and technology challenge.

While the District certainly does not need a new problem to fix, ironically, the Y2K problem has come at an opportune time. The District is in the throes of taking down every system and rebuilding it's government from the ground up. Thus, the city will need brandnew computers and other technology in any case, and should be able to seize the opportunity to build in Y2K remedies as a part of ongoing and indispensable management reforms. At the same time, Y2K problems that could bring additional disruption to services are the last thing that a city, just emerging from insolvency and serious service delivery problems, needs.

Even so, the city is by no means in a class by itself on fixing the Y2K problem. All governments, including the Federal Government, are behind, and State and local governments even more so. I have no reason to believe that the District is even the worse case. That is a very small comfort, however. As the millennium comes, it won't matter much who was ahead and who was behind to the victims of an incomplete or faulty Y2K process.

I'm pleased that the Authority and the city are using monthly progress reports to track implementation, and that the District of Columbia Subcommittee has been assured in writing that Y2K compliance will be in place by June 1999. The District appears to have first-rate assistance in place, although I am concerned at the widely divergent estimates of cost. The District has accepted responsibility for it's late start, and appears to be quickly catching up.

I expect today's hearing to help clarify many of the unresolved issues, and to be helpful to all concerned. Thank you, Mr. Chairman.

[The prepared statement of Hon. Eleanor Holmes Norton follows:]

ELEANOR HOLMES NORTON
DISTRICT OF COLUMBIA

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

SUBCOMMITTEES
SURFACE TRANSPORTATION
PUBLIC BUILDINGS AND ECONOMIC DEVELOPMENT

Congress of the United States
House of Representatives
Washington, D.C. 20515

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

SUBCOMMITTEE
RANKING MINORITY MEMBER, DISTRICT OF COLUMBIA

CIVIL SERVICE

CO-CHAIR
CONGRESSIONAL CAUCUS FOR WOMEN'S ISSUES

STATEMENT OF CONGRESSWOMAN ELEANOR HOLMES NORTON AT JOINT SUBCOMMITTEE OVERSIGHT HEARING ON THE DISTRICT OF COLUMBIA'S YEAR 2000 COMPLIANCE CHALLENGE
October 2, 1998

I want to thank the Chairs of the three Subcommittees participating today, Tom Davis, (Subcommittee on the District of Columbia), Connie Morella (Subcommittee on Technology), and Stephen Horn (Subcommittee on Government Management, Information and Technology) for working together for this hearing on the District's progress in meeting the Year 2000 or Y2K computer and technology challenge. While the District certainly does not need a new problem to fix, ironically, the Y2K problem has come at an opportune time. The District is in the throws of taking down every system, and rebuilding its government from the ground up. Thus, the city will need brand new computers and other technology in any case and should be able to seize the opportunity to build in Y2K remedies as a part of ongoing and indispensable management reforms.

At the same time, Y2K problems that could bring additional disruption to services are the last thing that a city that is just emerging from insolvency and has serious service delivery problems needs. Even so, the city is by no means in a class by itself on fixing the Y2K problem. All governments, including the Federal government, are behind, and state and local governments, even more so. I have no reason to believe that the District is even the worst case.

That is a very small comfort, however. As the millennium comes, it won't much matter who was ahead and who was behind to the victims of an incomplete or faulty Y2K process. I am pleased that the Authority and the city are using monthly progress reports to track implementation, and that the D.C. Subcommittee has been assured in writing that Y2K compliance will be in place by June 1999. The District appears to have first-rate assistance in place, although I am concerned at the widely divergent estimates of cost. The District has accepted responsibility for its late start and appears to be quickly catching up. I expect today's hearing to help clarify many of the unresolved issues and to be helpful to all concerned.

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Mr. DAVIS of Virginia. Thank you. We're also pleased to have the gentleman from Michigan, Mr. Barcia. Would you like to make an opening comment?

Mr. BARCIA. Thank you very much. As the ranking member of the Subcommittee on Technology, I want to join my colleagues in welcoming everyone to this afternoon's hearing. And while today's hearing is ostensibly about the District of Columbia government's efforts to address the Y2K challenge, I believe this hearing really highlights the challenges that all municipal, local, and State governments face in making their computer systems Y2K compliant. While the GAO testimony paints a grim picture for the District, what I found most disturbing in the GAO testimony was that, based on the limited data available on the status of local and State governments, we believe that the District's year 2000 status is not atypical.

Today's hearing should focus on the need for State and local governments to give the Y2K issue their highest priority. It doesn't matter if Federal agency systems are Y2K compliant, if all the State and local governments, which exchange electronic data on everything ranging from food stamp assistance to disability benefits to driver registration, are not compliant. The worst case scenarios painted by the witnesses' testimony is not limited to the District, but one that can happen in all of our communities across the country.

I hope that we don't use this hearing today to beat up on the District's shortcomings, but take the opportunity to inform ourselves about the problems that cities and towns across the Nation face, and examine possible solutions that they can use.

And I thank the intent, Mr. Chairman. I appreciate this effort, as my great colleague, Ms. Norton, already expressed. We need to work together in partnership with these local units of government to mitigate and reduce the kind of problem that we're going to have come January 1, 2000. I also want to just briefly thank our witnesses for appearing before the subcommittee today, and I hope that they will broaden their comments and recommendations, so that they can be used by city officials across this country. Thank you very much, Mr. Chairman.

[The prepared statement of Hon. Gil Gutknecht follows:]

OPENING STATEMENT OF CONGRESSMAN GIL GUTKNECHT
TECHNOLOGY SUBCOMMITTEE HEARING ON Y2K

OCTOBER 2, 1998

THANK YOU MADAM CHAIRMAN FOR SCHEDULING THIS VERY IMPORTANT HEARING. AS WE ALL KNOW, THE YEAR 2000 COMPUTER PROBLEM IS GETTING CLOSER AND CLOSER, AND AS MUCH AS SOME PEOPLE WANT TO, WE CAN'T RESCHEDULE IT. BEFORE THIS COMMITTEE STARTED HOLDING HEARINGS ON THIS ISSUE, NOBODY REALLY UNDERSTOOD OR CARED ABOUT THE Y2K PROBLEM. I CREDIT CHAIR MORELLA AND CHAIRMAN HORN FOR THEIR OUTSTANDING EFFORTS TO BRING THIS ISSUE TO THE FOREFRONT.

AFTER I READ THE HEARING CHARTER, I BECAME SERIOUSLY CONCERNED THAT THE GOOD CITIZENS OF THIS CITY ARE GOING TO FACE CRITICAL PROBLEMS ON JANUARY 1, 2000. WHILE I AM INFORMED THAT THE DISTRICT HAS MADE SIGNIFICANT PROGRESS, I'M CONCERNED THAT DUE TO THE LATE STARTING DATE, CITIZENS OF THIS GREAT CITY MIGHT FACE DISRUPTION OF ESSENTIAL PUBLIC SERVICES. I HOPE THIS IS NOT THE CASE.

ONCE AGAIN, THANK YOU MADAM CHAIRMAN FOR CALLING THIS MEETING TODAY AND I LOOK FORWARD TO HEARING THE WITNESSES TODAY INFORM US ON THE PROGRESS WASHINGTON, DC IS MAKING IN THEIR BATTLE AGAINST THE Y2K COMPUTER PROBLEM.

Mr. DAVIS of Virginia. Thank you very much. I'm going to call our panel of witnesses forward to testify. Mr. Jack Brock, the Director of Information Management Issues, Accounting and Information Management Division, U.S. General Accounting Office; Mrs. Constance Newman, the vice chairman of the D.C. Financial Responsibility and Management Assistance Authority; Dr. Camille Barnett, the chief management officer, government of the District of Columbia; Ms. Suzanne Peck, the chief technology officer, government of the District of Columbia.

As you know, it's the policy of this subcommittee that all witnesses be sworn before they can testify. If you'd rise with me, and raise your right hands.

Do you solemnly swear the testimony you're about to give to be the truth, the whole truth, and nothing but the truth?

Mr. BROCK. I do.

Ms. NEWMAN. I do.

Ms. BARNETT. I do.

Ms. PECK. I do.

Mr. DAVIS of Virginia. Thank you very much. You can be seated. I'd ask unanimous consent that any written statements be made part of the permanent record.

John Koskinan had wanted to be with us today, but his official duties required him to be in New York this afternoon. To give an example of his travel requirements, Mr. Koskinan was in Japan for 2 days earlier in the week. He will continue to actively work with the President's Council on the Year 2000 Conversion. I know Mr. Koskinan and his colleagues have been good allies of this city by working together on so many other endeavors. The administration has been partners with this subcommittee in trying to reshape the District of Columbia.

I'm going to turn over the gavel to Ms. Norton, who is going to run the hearing until we come back from two votes, and then we'll be back in time to hear you finish. Thank you.

Ms. NORTON [presiding]. Mr. Chairman, I now announce that a District appropriation is hereby passed. [Laughter.]

Mr. DAVIS of Virginia. You won't get any argument from me. [Laughter.]

Ms. NORTON. Nor does this subcommittee have any jurisdiction, I might add. But we'd ask you to proceed—whichever of you is inclined to go first—GAO, I think, has to go first.

STATEMENTS OF JACK BROCK, DIRECTOR, INFORMATION MANAGEMENT ISSUES, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE; CONSTANCE NEWMAN, VICE CHAIRMAN, DISTRICT OF COLUMBIA FINANCIAL RESPONSIBILITY AND MANAGEMENT ASSISTANCE AUTHORITY; CAMILLE BARNETT, CHIEF MANAGEMENT OFFICER, GOVERNMENT OF THE DISTRICT OF COLUMBIA; AND SUZANNE PECK, CHIEF TECHNOLOGY OFFICER, GOVERNMENT OF THE DISTRICT OF COLUMBIA

Mr. BROCK. Thank you very much, Ms. Norton. I'd like to emphasize a point that was made by you, and other members of the subcommittees, is that we're not here to beat up on the District. They

started late, that's a fact. They're working very hard, and that's also a fact.

What we hope to do today is illuminate the problem; allow a great understanding, and not only of the members of these subcommittees, but also residents of the District, as well as other cities and municipalities that face this very same problem. It was mentioned—this is not an atypical problem; it is not atypical. Every organization that has systems and processes that rely on date, has this problem. We believe very strongly that cities and State governments are behind others in addressing the problem.

Where the impact that many, many citizens of the United States will feel January 1, 2000, is not with some large scale business failing or something like that—that might occur later—but will actually be in the provision of local services. And the District, like other municipalities and States, deals with hospitals, police emergency provisions, a whole range of provisions of power, water, a range of services that includes payroll, pensions, the list goes on and on. It's a very complex environment that they operate in, and for many cities, they don't have the resources to do large scale renovation in terms of staff, or money, or whatever. So it's a serious problem.

The failure, however, to address the problem has some serious ramifications, and that failure can result in inconvenience; that failure can result in a loss of revenue; or more importantly, that failure can result in a threat to human safety and well-being.

I'd like to just very briefly go over the status of the District, and refer the Members to the chart that's on your left. The District is over 1 year behind in getting started. I think there's no real dispute over that. There was a late start. Until recently, earlier in the summer, the District had no full-time office, they had no full-time manager, there was no real identification of mission-critical systems or processes, no reporting mechanisms, and very little assessment of what the issues were.

Since that time, the District has taken some very good steps to move forward. They have a full-time program office, they have a new chief technology officer, they have a very capable contractor. And as a result, they moved forward. They've identified 336 critical applications. They have reported that 84 of these applications are now compliant—or were compliant—that 135 had been remediated, but not tested, and that 117 remain to be remediated. This represents a substantial workload of over 9 million lines of code. Additionally, the District is piloting a contingency planning model on the 911 system, a very critical system, as well as the water and sewer system, and the lottery board. And finally, they're testing a strategy for remediating non-IT assets, which is also being applied on the water and sewer system.

So this is a good start. I'd like to spend a few minutes though going over what's missing. What's missing to date is a complete inventory of all critical business functions—not just systems, but business functions that may, in fact, involve many computer systems and applications in order to provide a service.

They have not finished assessing the IT infrastructure. By that I mean all the data centers, the local area networks, the wide area networks, the infrastructure that these applications have to run on, nor have they identified all of the non-IT assets and the assess-

ment of those. And by that we mean elevators, other functions that use embedded chips, radio systems, things like that.

They have not yet provided testing guidance to the agencies, and this is required when the agencies do the unit acceptance test of any systems that have been remediated. And they have not yet identified all the needed resources that are needed for completing the remediation and testing.

Until the District completes its current assessment, it won't have a real good picture of where it stands, how long it's going to take to complete the renovation, how much it's going to cost, or to really develop good business continuity planning.

And finally, something that is distressing to us, and I understand that action is being taken on this. According to the Y2K office, three agencies within the District have chosen not to participate. Until this changes within these three agencies, no one can be certain as to the impact this might have on city operations. Similarly, participation and coordination between the Y2K program office and some agencies has not been as good as desired. And again, this was reported to us by the Y2K office.

I'd like to conclude my statement by really addressing what we believe is needed in order for the District to move forward. The District needs to make some significant changes in it's approach to achieve a reasonable level of assurance that critical operational processes will continue to work after the century date change. We've identified in the statement today, four steps.

First, it's unlikely the District will be able to remediate all of its systems. We believe that it's critical that the District prioritize its key business operations and focus on those first. And this consensus should not reside within the Y2K office of the contractor, but it needs to be a shared consensus among all the stakeholders who both operate city programs and who are recipients of the benefits of those programs.

To this point, we recommend that the District, in parallel with its current Y2K efforts, identify and rank the most critical business operations and systems that support those operations by October 31 of this year. Second, the District should use this ranking to determine, by November 30, the priority in which supporting systems that support those business operations should be renovated and tested. And the continuity of operations and contingency plans for these processes and systems should be initiated at the same time. This is recognition that you can't do everything, so focus the first attention on the most critical operations, and those critical operations need to be identified in a very short timeframe.

The second step, for those systems that may not fall in this first priority, but are still necessary or appropriate for the city to continue, which may not complete remediation or make complete remediation, but not be adequately tested, it's also essential that contingency plans of operation be developed for these processes as well. And by that we mean that when you develop contingency plans, the reason it's important to do them early is that contingency plans in themselves aren't simple. Sometimes they require funding, sometimes they require operational workarounds that require special approval or permission to implement, sometimes they involve a completely new way of doing business.

Third, because of the dependencies within the District, and around the District—the District is not an island that's by itself—it really requires the interaction of the surrounding counties and cities in order to operate in a reasonable fashion. It supports the Nation's Capitol, it supports the Chief Executive Office, it supports the Congress, and it supports the Judiciary Branch. It's important for all of these functions operated by the city be ready. It's also important for the city to be ready, that the Federal Government be ready, and that the surrounding municipalities be ready.

So far, we haven't seen the high level of attention and cooperation that we would like to see among all the jurisdictions that share the area to move forward on this. And again, we recommend in this case, that the District immediately develop an aggressive outreach program to first identify the dependencies that it has, and then determine the remediation if necessary that's required to minimize risk of the year 2000 failure.

And finally, our last point, is that efforts to address the problem must have the continued top level commitment from the chief management officer, and the department and agency heads, the mayor's office, and the control board. That establishing a program office, hiring the contractor, establishing the various boards—these were all good first steps—but they need to continue.

The key stakeholders within this need to own the processes. This is not a technical problem; this is a management problem. And the managers have to own the solutions, they have to support the solutions, they have to make the resources available to implement the solutions. This is a critical step. This is the problem that we've seen in many agencies across government, where the processes, once implemented, are assumed to be a technical solution and management withdraws until the crisis is looming.

This completes my testimony, Ms. Norton, and at the end of the statements, would be pleased to address any questions.

[The prepared statement of Mr. Brock follows:]

Mrs. Chairwoman, Mr. Chairmen, and Members of the Subcommittees:

Thank you for inviting me to participate in today's hearing on the District of Columbia's Year 2000 problem. As you know, the District of Columbia, like other local and state governments, is extremely vulnerable to Year 2000 problems due to its widespread dependence on computer systems to deliver vital public services and carry out its operations. If the problems are not addressed in time, systems supporting important functions such as public safety, revenue collection, traffic control, payroll, and pensions may be unable to operate. Today, I will discuss the Year 2000 risks facing the District, its progress to date in fixing systems, and our concerns with the District's remediation strategy.

Until this past June, the District had made only limited progress in addressing the Year 2000 problem. It lacked both the structure and the resources necessary to address the issue. Since June, the pace of the District's Year 2000 effort has picked up considerably. The District hired a contractor to assist in remediating systems, established a Year 2000 program management office, assigned more resources, and began a more aggressive strategy to compensate for lost time. These actions will substantially improve its ability to complete the difficult tasks that lay ahead. But because the District is so far behind in addressing the problem, the risk that critical processes could fail is greatly increased. As a result, it is vital that the District promptly identify its most important operations, determine which systems supporting

these operations can be fixed before the Year 2000 deadline, and ensure that business continuity and contingency plans are developed for systems that will not be renovated on time.

To prepare for this testimony, we evaluated the District's efforts to address risks associated with the Year 2000 date change and compared these efforts to criteria detailed in our Year 2000 Assessment Guide,[1] Business Continuity and Contingency Planning Guide,[2] and Testing Guide.[3] We interviewed District officials responsible for overseeing the Year 2000 effort, including the Chief Management Officer and her deputy, the Acting Chief Technology Officer, the Year 2000 Program Manager, the Chief Procurement Officer, and Office of Inspector General officials. We reviewed and analyzed the District's request for contractor assistance in assessing, renovating, and testing city systems. We also attended two hearings held by the District of Columbia Council in May and July 1998 on the status of the city's Year 2000 efforts. Finally, we interviewed officials from Public Technology, Inc., the International City/County

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[1]Year 2000 Computing Crisis: An Assessment Guide (GAO/AIMD-10.1.14). Published as an exposure draft in February 1997 and finalized in September 1997, the guide was issued to help federal agencies prepare for the Year 2000 conversion.

[2]Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD-10.1.19). Published as an exposure draft in March 1998 and finalized in August 1998, this guide provides a conceptual framework for helping organizations to manage the risk of potential Year 2000-induced disruptions to their operations. It discusses the scope and challenge and offers a structured approach for reviewing the adequacy of agency Year 2000 business continuity and contingency planning efforts.

[3]Year 2000 Computing Crisis: A Testing Guide (GAO/AIMD-10.1.21, Exposure Draft, June 1998). This guide addresses the need to plan and conduct Year 2000 tests in a structured and disciplined fashion. The guide describes a step-by-step framework for managing, and a checklist for assessing all Year 2000 testing activities, including those activities associated with computer systems or system components (such as embedded processors) that are vendor supported.

Management Association, the National Association of State Information Resources Executives, the National Governors' Association, and the Regional Council of Governments to evaluate the progress of other state and local governments. We performed our work in Washington, D.C., between March and September 1998, in accordance with generally accepted government auditing standards.

YEAR 2000 RISKS FACING THE DISTRICT OF COLUMBIA

Addressing the Year 2000 problem in time will be a formidable challenge for the District of Columbia. The District government is composed of approximately 80 entities, responsible for carrying out a vast array of services for a diverse group of stakeholders. These services include municipal, state, and federal functions, such as street maintenance and repairs, economic development and regulation, trash pick-up, water and sewer services, educational institutions, hospital and health care, public safety, and correctional institutions. Each of these services is susceptible to the Year 2000 problem.

The Year 2000 problem is rooted in the way dates are recorded and computed in automated information systems. For the past several decades, systems have typically used two digits to represent the year, such as "97" representing 1997, in order to conserve on electronic data storage and reduce operating costs. With this two-digit

format, however, the year 2000 is indistinguishable from 1900, or 2001 from 1901. As a result of this ambiguity, system or application programs that use dates to perform calculations, comparisons, or sorting may generate incorrect results.

The District has a widespread and complex data processing environment, including a myriad of organizations and functions. There are four major data centers located throughout the city, each serving divergent groups of users, running multiple applications, and using various types of computer platforms and systems. Most of the District's computer systems were not designed to recognize dates beyond 1999 and will thus need to be remediated, retired, or replaced before 2000.

To complicate matters, each District agency must also consider computer systems belonging to other city agencies, other governments, and private sector contractors that interface with their systems. For example, the Social Security Administration exchanges data files with the District to determine the eligibility of disabled persons for disability benefits. Even more importantly, the District houses the most critical elements of the federal government. The ability of the District to perform critical government services after the century date change is not only essential to District residents but also important to the continuity of operations of the Executive, Congressional, and Judicial offices housed here.

In addition, the Year 2000 could cause problems for the many facilities used by the District of Columbia that were built or renovated within the last 20 years and contain embedded computer systems to control, monitor, or assist in operations. For example, water and sewer systems, building security systems, elevators, telecommunications systems, and air conditioning and heating equipment could malfunction or cease to operate.

The District cannot afford to neglect any of these issues. If it does, the impact of Year 2000 failures could potentially be disruptive to vital city operations and harmful to the local economy. For example:

- Critical service agencies, such as the District's fire and police departments, may be unable to provide adequate and prompt responses to emergencies due to malfunctions or failures of computer reliant equipment and communications systems.
- The city's unemployment insurance benefit system may be unable to accurately process benefit checks as early as January 4, 1999.[4]

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[4]Because of benefit year date calculations used in determining claimant eligibility, many state unemployment systems are at risk of Year 2000 failures as early as January 1999. For example, if a claim is filed January 4, 1999, it will have a benefit year ending date of January 3, 2000. If a state's benefits system has not been repaired, it may fail as early as January 1999 because it would not properly recognize dates beyond 2000. Because the District had not yet procured a contractor to remediate its unemployment system, GAO and the Department of Labor's Inspector General recently reported that the system was at a high risk of failing. (Year 2000 Computing Crisis: Progress Made at Department of Labor, But Key Systems at Risk (GAO/T-AIMD-98-303, September 17, 1998)).

- The city's tax and business systems may not be able to effectively process tax bills, licenses, and building permits. Such problems could hamper local businesses as well as revenue collection.
- Payroll and retirement systems may be unable to accurately calculate pay and retirement checks.
- Security systems, including alarm systems, automatic door locking and opening systems and identification systems, could operate erratically or not all, putting people and goods at risk and disabling authorized access to important functions.

To address these Year 2000 challenges, GAO issued its Year 2000 Assessment Guide to help federal agencies plan, manage, and evaluate their efforts. This guide provides a structured approach to planning and managing five delineated phases of an effective Year 2000 program. The phases include (1) raising awareness of the problem, (2) assessing the complexity and impact the problem can have on systems, (3) renovating, or correcting, systems, (4) validating, or testing, corrections, and (5) implementing corrected systems. GAO has also identified other dimensions to solving the Year 2000 problem, such as identifying interfaces with outside organizations specifying how data will be exchanged in the Year 2000 and beyond and developing business continuity and contingency plans to ensure that core business functions can continue to be performed even if systems have not been made Year 2000 compliant.

LIKE THE DISTRICT, OTHER LOCAL AND STATE GOVERNMENTS ARE FACING FORMIDABLE YEAR 2000 CHALLENGES

Based on the limited data available on the status of local and state governments, we believe that the District's Year 2000 status is not atypical. For example, a survey conducted by Public Technology, Inc. and the International City/County Management Association in the fall and winter of 1997, found that of about 1,650 cities that acknowledged an impact from Year 2000, nearly a quarter had not begun to address the problem.

In addition, state governments are also reporting areas where they are behind in fixing Year 2000 problems. For example, as we recently testified before the Subcommittee on Government Management, Information and Technology, House Committee on Government Reform and Oversight,[5] a June 1998 survey conducted by the Department of Agriculture's Food and Nutrition Service, found that only 3 states reported that their Food Stamp Program systems Year 2000 were compliant and only 14 states reported that their Women, Infants, and Children Program were compliant. Moreover, four states reported that their Food Stamp Program systems would not be compliant until the last quarter of calendar year 1999, and five states reported a similar compliance time frame for the Women, Infants, and Children Program.

[5]Year 2000 Computing Crisis: Severity of Problem Calls for Strong Leadership and Effective Partnerships (GAO/T-AIMD-98-278, September 3, 1998).

DESPITE SLOW START, THE DISTRICT IS ACTING TO ADDRESS THE YEAR 2000 PROBLEM

Until June 1998, the District had made very little progress in addressing the Year 2000 problem. It had not identified all of its mission-critical systems, established reporting mechanisms to evaluate the progress of remediation efforts, or developed detailed plans for remediation and testing. In addition, it lacked the basic tools necessary to move its program forward. For example, it had not assigned a full-time executive to lead its Year 2000 effort, established an executive council or committee to help set priorities and mobilize its agencies, or identified management points-of-contact in business areas.

Since this past June, the District has recognized the severity of its situation and taken a number of actions to strengthen program management and to develop a strategy that is designed to help the city compensate for its late start. For example, to improve program management, the District has hired a new chief technology officer, appointed a full-time Year 2000 program manager, established a Year 2000 program office, and continued to use its chief technology officer council to help coordinate and prioritize efforts.

The District also contracted with an information technology firm to assist in completing the remediation effort. To accomplish this in the short time remaining, the District and

the contractor plan to concurrently (1) remediate and test system applications, (2) assess and fix the information technology (IT) infrastructure, including the data centers, hardware, operating systems, and telecommunications equipment, (3) assess and correct noninformation technology assets, and (4) develop contingency plans. So far, the District has done the following.

- Developed an inventory of information technology applications. Of the 336 applications identified, the District and its contractor determined that 84 are deemed Year 2000 compliant, 135 have already been remediated but still need to be tested, and 117 need to be remediated and tested. According to the District, over 9 million lines of code still need to be remediated.
- Initiated pilot remediation and test efforts with the pension and payroll system. The system has been converted and the conversion results are being readied for system users to review. The District expects to complete the pilot by December 31, 1998.
- Adopted a contingency planning methodology which it is now piloting on the 911 system, the water and sewer system, and the lottery board system. It expects to complete the first two pilots by October 31, 1998, and the remaining one during the first quarter of fiscal year 1999.
- Developed a strategy for remediating non-IT assets which is now being tested on the water and sewer system. This is also expected to be done by October 31, 1998. After this effort is completed, the District and the contractor will begin

to assess and remediate non-IT equipment at agencies providing critical safety, health, and environmental services.

THE DISTRICT IS STILL SIGNIFICANTLY BEHIND IN ADDRESSING THE YEAR 2000 PROBLEM

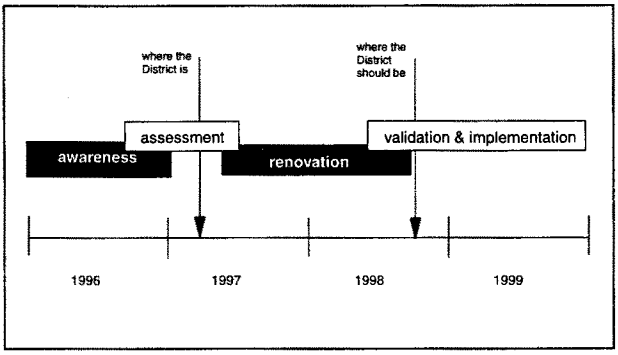
The District's recent actions reflect a commitment on the part of the city to address the Year 2000 problem and to make up for the lack of progress. However, the District is still significantly behind in addressing the problem. As illustrated in the following figure, our Assessment Guide recommends that organizations should now be testing their systems in order to have enough time to implement them. They should also have business continuity and contingency plans in place for mission-critical systems to ensure the continuity of core business operations if critical systems are not corrected in time.

By contrast, the District is still in the assessment process--more than 1 year behind our recommended time table. For example, it has not

- identified all of its essential business functions that must continue to operate,
- finished assessing its IT infrastructure and its non-information technology assets,

- provided guidance to its agencies on testing, and
- identified resources that will be needed to complete remediation and testing.

Figure 1: The District's Year 2000 Status Compared to GAO's Recommended Year 2000 Schedule



Until the District completes the assessment phase, it will not have reliable estimates on how long it will take to renovate and test mission-critical systems and processes and to develop business continuity and contingency plans. Nor will the District be able to provide a reliable estimate of the costs to implement an effective Year 2000 program.

Further, the District has had some problems in completing the assessment phase. For example, according to program office officials, three agencies--the Court System,

Superior Court, and Housing Authority--have refused to participate in the program office's assessment activities. Agencies also do not consistently attend program office meetings and do not always follow though on their assessment commitments, such as ensuring that program office and contractor teams have access to agency personnel and data. Program office officials attributed these problems to the office's limited authority and the lack of mandatory requirements to participate in the Year 2000 program. Failure to fully engage in the Year 2000 program can only increase the risks the District faces in trying to ensure continuity of service in key business process areas.

ESSENTIAL STEPS NEEDED TO MITIGATE INCREASED RISKS

District officials acknowledge that the city is not able to provide assurance that all critical systems will be remediated on time. We agree. Therefore, to minimize disruptions to vital city services, it will be essential for the District to effectively manage risks over the next 15 months.

First, because it is likely that there will not be enough time to remediate all systems, the District must identify and prioritize its most critical operations. This decision must collectively reside with the key stakeholders involved in providing District services and must represent a consensus of the key processes and their relative priority. The

results of this decision should drive remediation, testing, and business continuity and contingency planning and should provide increased focus to the efforts of the Year 2000 office and its contractor. To this point, we recommend that the District, in parallel with its current Year 2000 efforts, identify and rank the most critical business operations and systems by October 31, 1998. The District should use this ranking to determine by November 30, 1998, the priority in which supporting systems will be renovated and tested. Continuity of operations and contingency plans for these processes and systems should also be initiated at this time if such action is not already underway.

Second, for systems that may not complete remediation but that are still important to city operations, managers will need to develop contingency plans for continued operations. It is essential that such plans be developed early to provide stakeholders as much time as possible to provide resources, develop "workarounds," or secure legislative or administrative approvals as necessary to execute the plans.

Third, because of the dependencies between the District and the surrounding local and federal government entities, the District will need to work closely with those bodies to both identify and prepare appropriate remedial steps and contingency plans to accommodate those dependencies. We recommend that the District immediately develop an outreach program to first identify its dependencies and then determine the remediation required to minimize the risk of Year 2000 failure.

Finally, efforts to address this problem must have continued top-level commitment from the Chief Management Officer and the department and agency heads, the Mayor's office, and the Control Board.[6] Establishing a program office and hiring a contractor with significant expertise is a good first step. However, the key stakeholders need to "own" the process, i.e., participate in critical decision-making on program direction, provide resources and support for the program, and ensure that all District agencies and offices fully participate in the process.

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To conclude, we believe the District's Year 2000 program needs an absolute commitment from its leadership to make the most of the short time remaining. By addressing the steps outlined above, the District can better ensure a shared understanding of the key business processes that must be remediated, a shared understanding of the risks being assumed in establishing priorities for remediation, testing, and business continuity and contingency planning, and a shared commitment to provide the resources required to address those priorities.

[6]The District of Columbia Financial Responsibility and Management Assistance Authority, also known as the District of Columbia Control Board, was established in April 1995 by Public Law 104-8. The Board's responsibilities include improving the District's financial planning, budgeting, and revenue forecasting as well as ensuring the most efficient and effective delivery of city services. The Board is also responsible for conducting investigations to determine the fiscal status and operational efficiency of the District government.

Mrs. Chairwoman and Mr. Chairmen, this concludes my statement. I will be happy to answer any questions you or Members of the Subcommittees may have.

(511130)

JACK L. BROCK, JR.

Jack Brock is Director, Governmentwide Information Systems, at the U.S. General Accounting Office. Mr. Brock is responsible for information management evaluations at the Department of Defense, State, Treasury, and Justice, as well as developing guidance for improving performance in such areas as performance management, investment controls, and computer security.

Currently, Mr. Brock is heavily involved in evaluating the readiness of federal agencies to successfully address the issues associated with the year 2000. He is responsible for reviews at Treasury, Defense, Justice, NASA, State, and other federal agencies. Additionally, Mr. Brock is reviewing the year 2000 readiness of the banking industry, telecommunications, retail and manufacturing, and international sectors.

Mr. Brock joined the General Accounting Office in 1973 after receiving his MPA from the University of Texas at Austin. He is also a graduate of the Harvard Business School Program for Management Development.

Ms. NORTON. Thank you very much, Mr. Brock.

Mrs. Newman.

Ms. NEWMAN. Good afternoon, Congresswoman Norton. I am representing the, as you call it, control board. We like to be referred to as the Authority—we think that is a softer way to describe ourselves. [Laughter.]

The District government and the Authority are paying considerable attention to making sure that the computer systems are Y2K compliant, especially those that support critical service delivery operations.

The Authority's role in this matter is to provide oversight, and to ensure that the required resources are available and appropriately applied toward addressing the Y2K problem. We have really received, and continue to receive, regular briefings from the chief management officer and the chief technology officer. I will say that I personally spend time with them, and have done so more in the last couple of months, to understand exactly how they are planning to address this problem.

We have, you should also know, considered this problem as a management reform project. What this does is it allows the Authority to direct necessary resources based upon the recommendations of the chief management officer and the chief technology officer.

We are being very honest about the fact that we did get a late start. There's no question about that. But we understand that this requires that we put in place an aggressive schedule and a schedule that requires that certain steps that would normally be sequential are now undertaken simultaneously. This, we know, is not the optimum strategy, but we believe we have no choice at this time. The Authority will continue to monitor the manner in which the management is handling this matter.

You will hear more about this, but I just want to raise the point with you, that early last summer the city contracted with IBM to perform the assessment of the District's Y2K compliance, and to provide recommendations on necessary remediation. Contrary to what I heard earlier, the assessment is complete. Now it is true, that it just happened. The assessment is complete. And I think you will hear much more about this from the chief technology officer.

I just want to put in a plea too—we understand that Congress is considering emergency appropriation of $3.35 billion to aid government agencies in achieving Y2K compliance. We would like very much for your support to have the District government considered.

In my prepared testimony—I will not go through it now—I wanted to provide some positive information about exciting opportunities for improving technology utilization. I will not take up your time with that, right now but it is in the testimony.

In conclusion, the information technology aspect of management reform is a very critical area that is receiving, as it should, the attention of the Authority. Y2K remedies are certainly among the most crucial and time-sensitive matter that must be addressed by the District government at this time. We are all aware of the risks associated with failing to address the Y2K problems with the time, and attention, and leadership of the government.

We at the Authority commit to you that we take these problems seriously, and will continue to conduct rigorous oversight of the re-

mediation, the testing, as well as the important contingency planning.

And I too am available for questions at the end of the other statements.

[The prepared statement of Mrs. Newman follows:]

Good afternoon Chairman Davis, Chairman Horn, Chair Morella, Congresswoman Norton, and members of the Committee:

I am Constance Newman, Vice Chair of the District of Columbia Financial Responsibility and Management Assistance Authority. The Authority is pleased to appear today to offer testimony on the District of Columbia government's efforts to ensure effective computer operation in the Year 2000.

The District government and the Authority are paying considerable attention to making sure that all computer systems are Year 2000 ("Y2K") compliant, especially those which support critical service delivery operations.

The Authority's role in this matter is to provide oversight and to ensure that the required resources are available and appropriately applied toward addressing the Y2K problem. The Authority has received regular briefings from the Chief Management Officer and the Chief Technology Officer on the status of the District's Y2K plan. We have approached Y2K as a management reform project. This allows the Authority to direct the necessary resources, based upon the recommendations of the Chief Management Officer and the Chief Technology Officer. The Chief Management Officer and the Chief Technology Officer are here today and they will provide additional details.

As we have previously reported to the District got a very late start in addressing the Y2K problem. An aggressive schedule of work was necessitated by the late start. This schedule requires that certain steps that would normally be done sequentially, are undertaken simultaneously. This is not the optimum strategy, but we have no choice. The Authority will carefully monitor this strategy.

Early last summer, the city contracted with IBM to perform an assessment of the state of the District's Y2K compliance and to provide the necessary remediation. The assessment process is now complete. In her testimony, the Chief Management Officer will discuss the additional needs for Y2K. We understand that the Congress is considering an emergency appropriation of $3.25 billion to aid government agencies in achieving Y2K compliance. We hope that we can count on your support for a portion of that Federal program for the District of Columbia government to help us close the gap.

In addition to the Y2K efforts I want to bring to the committee's attention some exciting opportunities for improving technology utilization as it relates to service delivery. These opportunities are logical extensions of currently approved management reform technology infrastructure projects, and are necessary to build a unified District-wide communications system with shared data access capabilities. The successful completion of these projects will dramatically increase the District's ability to improve services to citizens, reduce costs, and expand revenue opportunities. The projects will take four years to implement and have a payback period of four years or less. In other words they will pay for themselves during the period of implementation, or sooner.

In addition, the Chief Technology Officer and the Chief Management Officer plan to create a Unified Communications Center to serve the police, Fire and Emergency Medical Services and the communications requirements of the Emergency Preparedness Department. Also as part of the Unified Communications Center, the District will establish a 311 number for citizen non-emergency calls. This will increase service delivery.

In conclusion, the information technology aspect of management reform is a very critical area. Year 2000 remedies are certainly the most crucial and time sensitive matters that must be addressed, but it is not the only information technology project that the District is addressing.

Mr. Chairmen, this concludes my prepared statement. I will be pleased to answer any questions.

Constance Berry Newman-Member

Constance Berry Newman became Under Secretary of the Smithsonian Institution in July, 1992. She was Director of the Office of Personnel Management from June 1989 to June, 1992. For more than 20 years she managed public and private organizations. Among her major management positions were: Assistant Secretary of the United States Department of Housing and Urban Development, Director of VISTA, and President of the Newman & Hermanson Company. She was also commissioner and Vice-Chair of the Consumer Product Safety Commission.

From 1987 to 1988, Ms. Newman worked for the Government of Lesotho as a Cooperative Housing Foundation consultant to advise the ministry of Interior regarding the establishment of a housing corporation to receive World Bank funding.

During her public career which began in 1961, Ms. Newman worked both as a career public servant and a political appointee with four Presidential appointments, three of which were confirmed by the Senate.

Ms. Newman was a Woodrow Wilson Visiting Fellow from 1977 to 1988, and a member of the Adjunct Faculty at the Kennedy School, Harvard University from 1979 to 1982. She has received an Honorary Doctor of Laws from her Alma Mater, Bates College, Amherst College and Central State University. In addition to receiving an A.B. from Bates College, she received a Bachelor of Science in Law degree from the University of Minnesota Law School. In 1985, she received the Secretary of Defense Medal for Outstanding Public Service. At present she serves on the Board of Trustees of The Brookings Institution, the National Academy of Public Administration, and is a member of the Board of Governors of the Center for Creative Leadership. In addition, Ms. Newman is a member of the Board of Trustees of the Brookings Institution and member of the District of Columbia Financial Responsibility and Management Assistance Authority.

Ms. NORTON. Thank you very much, Mrs. Newman.

Ms. Barnett.

Ms. BARNETT. Thank you, Ms. Norton. It's a pleasure to be here. I'm Camille Cates Barnett, the chief management officer for the District of Columbia. And I'm here to give you an update on our year 2000 activities.

Let me begin by telling you where we are with several initiatives, and also commenting on our working with governments and other entities in the region, and also how we're gathering information from the private sectors, vendors and suppliers in particular.

Once again, I'll confirm that the District is behind. Until last June, the District had made limited progress in addressing the year 2000 problem, principally because of resource and organizational issues. But since June, we have moved very quickly to engage a private contractor to assist in establishing a program, management office, and to begin the process of system discovery, assessment, remediation, and testing. We've also established our District CTO leader and our Y2K team. The head of that team is with us today. And all of these people are working together and aggressively to address these problems.

As has been mentioned earlier this afternoon, the District is not unusual. We're like about 70 percent of the other municipalities in coming late to this year 2000 challenge. However, just because we're similar to other places, doesn't mean that we aren't as vulnerable, because we are. We're vulnerable to several problems.

The District has distinct challenges in the year 2000 arena. Our organization has over 75 agencies responsible for service delivery to a very diverse group of stakeholders. As you know, our services included not only municipal services, but also State and Federal activities, and each one is susceptible to year 2000 problems. Our data processing environments are also complex and widespread. And as been mentioned, we are also in the process of implementing major new technology systems. Our environment is further complicated by our relationship to other city agencies, governments, and private sector vendors.

Our risks are complicated as well, involving public safety systems, water and sewer systems, telecommunication systems, security systems, and administrative, financial, and educational management systems. We're addressing the year 2000 projects in a parallel fashion. That is, doing several things at once, rather than taking the time to do them in sequence. We are testing and remediating IT software applications, assessing noninformational technology assets, structuring business continuity and contingency plans, and assessing our technology infrastructure.

Let me also take this opportunity to discuss the IT application assessment phase of the project, and our first completed milestone, which was August 28, 1998. We have developed an IT inventory of mission-critical systems. The District has identified 336 information technology application systems, 84 of which are year 2000 compliant; 177 that will require remediation and testing; and 135 that will require testing only. Since July, we have underway several pilot efforts in the area of testing and remediation, contingency planning, and evaluation of non-IT assets.

We are significantly behind, and we have much more to do to address the known risks and impediments that could affect our progress through fiscal year 1999.

First, we must continue to prioritize at a rapid pace. We have reviewed with the agency managers, and have determined the number of IT mission-critical systems involved in each of these projects. Schedules for this remediation will detail the IT application, given the number of systems and the allocated budgets funded by the chief technology office.

Second, agencies who cannot be accommodated in the schedule, will be required to have extensive contingency plans and support to develop them.

Third, the District must work closely with local, and regional, and Federal offices to involve them in appropriate actions and planning to decrease the risk of their dependency on affected assets. We will be working with the President's Council for Y2K and the Metropolitan Council of Governments to facilitate this kind of communication, and position the District to be the benefactor of their past work and plans in the Y2K area.

Fourth, the District must aggressively assist the agencies in defining data exchanges and interfaces among and between themselves, and with their business partners.

The fifth item is financing. Initial funding for the Y2K problem in the District of Columbia is approximately $22 million, and that will not be adequate to carry on the vendor support activities within the technology office. We now have completed the assessment stage, and so we have detailed additional requirements of $47 million for information technology and expenses. And additionally, as we complete the discovery process, we anticipate our embedded chip expenses to fall within the range of $40 to $70 million. We are seeking your support for efforts to obtain the additional funds.

To address the risks posed by failure in the private sector vendor and supply chain environments, we have established a vendor and supplier management program. This includes the creation of a large data base of information which we will gather from various sources, including our own inventories and assessments, the results of vendor and supplier surveys, and shared information from groups like the Council on Governments. We'll use this information to evaluate the readiness status of agencies and their assets.

In conclusion, I would like to thank the members of these various committees, and the various branches of the Federal Government, who have helped the District accelerate very quickly it's applications of Y2K remediation. I'd also particularly like to thank Suzanne Peck, our chief technology officer, and also Mary Ellen Hanley, who is here with us, who is our year 2000 program manager, for their help in developing and implementing this plan.

We realize that to do this will take top level commitment, not only from me and my office, but from all of the agency heads, the Authority, the mayor's office, and city council, and we commit to you to remain focused and visible for this remediation process. We understand the seriousness of these issues, and we are committed to it's resolution.

Thank you.

[The prepared statement of Ms. Barnett follows:]

Madam Chairwoman, Chairmen and Members of the Subcommittees:

I am Dr. Camille Cates Barnett, Chief Management Officer for the Government of the District of Columbia, since January of 1998. I appreciate the opportunity to present the Y2K initiatives that are being aggressively carried out in the District.

Overview

Let me begin by telling you where we are with the Y2K initiatives, how we are working with other governmental entities in the region, and how we are gathering information from our private sector vendors and suppliers.

Until this past June, the District had made limited progress in addressing the Y2K problem due to resource and organizational issues. Since June, we have moved quickly to engage a private contractor to assist in establishing a program management office and to begin the process of system discovery, assessment, remediation and testing. We have also established a District CTO Leader and a Y2K team, all of whom are working aggressively with the contractor to address our problems.

We are like about 70% of the nation's municipalities in coming late to Y2K challenges. Consequently we are vulnerable to the problems as well. The District also has distinctive challenges in the Y2K arena. Our organization has over 75 Agencies, responsible for service delivery to a diverse group of stakeholders. Our services include municipal, state and federal activities, and each is susceptible to Year 2000 problems. Our data processing environments are complex and widespread. We are also in the process of implementing major new technology systems. Our environment is further complicated by our relationship to other city agencies, governments and private sector vendor systems.

Our risks are complicated as well, and involve public safety systems, water and sewer systems, telecommunication systems, security systems, and administrative, financial and educational management systems. We are addressing the Y2K projects in a parallel fashion; testing and remediating IT software applications; assessing non-informational technology assets; structuring business continuity and contingency plans; and assessing technology infrastructures.

Y2K Initiatives and Relationships

Let me take this opportunity to discuss the IT application assessment phase of the project; our first completed milestone was on August 28, 1998. We have developed an IT inventory of mission-critical systems. The District has identified 336 IT application systems, 84 of which are Year 2000 ready; 117 that will require remediation and testing; and 135 that will require testing only. Since July, we have underway several pilot efforts in the area of testing and remediation; continuity and contingency planning and evaluation of non-IT assets.

We are significantly behind, and have much more to do to address known risks and impediments that could affect our progress through FY 1999.

First, we must continue the prioritization process at a rapid pace. We have reviewed priorities with Agency managers and have determined the numbers of IT mission-critical systems involved in the project. Schedules for remediation will detail the IT applications, given the number of systems and allocated budgets funded by the Chief Technology Office (CTO).

Second, Agencies who can not be accommodated in the schedule will be required to have extensive contingency plans and support to develop them.

Third, the District must work closely with local, regional and federal offices to involve them in appropriate actions and planning to decrease the risk of their dependency upon affected assets. We will be working with the President's Council for Y2K and the Metropolitan Council of Governments to facilitate this kind of communication and position the District to be the benefactor of their past work and plans in the Y2K arena.

Fourth, the District must aggressively assist the Agencies in defining data exchanges and interfaces among and between themselves, and with their business partners.

Fifth, financing. Initial funding of $21.8 million will not be adequate to carry on vendor support activities within the Technology Office. We have detailed additional requirements of $47 million for information technology expenses and additionally, as we complete the discovery process, we anticipate our embedded

chip expenses to fall within a range of $40 to $70 million. We are seeking your support for our efforts to obtain the additional funds.

To address the risks posed by failure in the private sector vendor and supplier chain environments, we have established a vendor and supplier management program. This includes the creation of a large database of information which we will gather from various sources, including our own inventories and assessments, the results of vendor and supplier surveys and shared information from groups like the Council on Governments. We will use this information to evaluate the readiness-status of the Agencies and their assets.

Conclusion

I would like to end my statement by giving recognition and thanks to the many branches of government and individuals who have helped us quickly accelerate from ground zero. The Congress has already provided important support for our efforts. I thank each of you, Chairman Tom Davis, Congresswomen Eleanor Holms Norton and Connie Morella, and Congressman Stephen Horn, along with the Chairs of the participating Subcommittees. I also wish to thank the Office of Management and Budget, which has reached out to the entire Metropolitan area to improve our capability to successful solve the Y2K challenge, and the U.S. Department of the Treasury for their technical and Management assistance.

I also want to thank members of the Council and Financial Authority for their help and support in addressing these critical issues, including establishing and funding a new Office of Technology. I also want to specifically thank our new Technology Officer, Suzanne Peck and our new Y2K Program Manager, Mary Ellen Hanley.

We realize that our top level commitment from the Chief Management Office, the Department and Agency heads, the Control Board and the Mayor's Office must remain focused, visible and continuous, for our Y2K initiatives to go forward successfully.

Ms. NORTON. Thank you very much, Ms. Barnett.

Ms. Peck.

Ms. PECK. Thank you very much, Ms. Norton. My name is Suzanne Peck, and I'm the chief technology officer for the District of Columbia. I'll cover the areas of financial and human resources, of contingency planning, and of the timelines our Y2K remediation and testing activities.

No District initiative has more importance than Y2K. From the congressional level and from the Financial Authority level, and from senior District management perspectives, this effort has first call on all of our resources and first call on our urgency.

We've projected a remaining IT expense for the District of $40 to $60 million. Additionally, we are now in discovery on the non-IT expense portion, I will tell you today, that directionally, we probably have an expense of equal magnitude—I would compute between $40 and $70 million for non-IT expenses. Combined, that adds to a possible total expense for the District of between $80 and $130 million. Of that amount, as Dr. Barnett has said to you, we have funded about $22 million, and have spent about $8.5 million of that $22 million. This leaves us with a potential total remaining funding requirement of between $67 and $117 million.

In terms of our human resource focus, the focus is on our Y2K team, and our citywide departmental resources. The District's team is led by a senior Y2K program manager and by staffers who provide program oversight and functional service area coordination. Our expandable IBM team is currently at about 50 persons, and that team is staffed by functional specialists in both IT and non-IT infrastructures and assessments, in conversion, in testing, in end-user and vendor management, and in contingency planning. Citywide, departmental resources are being made available on a priority basis to this effort. Their challenges are to develop and implement contingency plans and to lead departmental support efforts. Making these resources available to Y2K places a substantial strain within the District on daily activities, and often requires the suspension of normal activities in District departments. And where those suspensions of normal work are required they are currently, at the direction of senior management in the District, being done.

In terms of contingency planning, the District's Y2K project is 120 days old. Our most important task over the next 15 months is to effectively manage the risk of disruption to essential city services. As the GAO member testified, Y2K is not an IT problem; it is a management problem; it is a business problem; and it extends not only within our city boundaries, it extends without our city boundaries as well.

We have identified and prioritized the most critical systems in every District agency, and have a prepared document with that prioritization. Again, as the GAO witness testified, those systems prioritizations must be extended to be operational prioritizations as well.

We are now very, very focused on contingency plans in all of our approximately 75 agencies. Because what we don't know is which of the operations in the 75 agencies will fail. What we do know is that some of them will fail, and we must be ready for that failure with alternative operations.

Our contingency planning model is straightforward. We're identifying the mission-critical business processes in each agency, including their supply chains and business partners, and putting plans in place for manual workarounds in the short run against those failures. As an example, for 911 emergency operations, which have already been initially tested, our contingency operations dispatch emergency vehicles approximately 30 to 60 seconds later than normal operations.

Again, as the GAO witness said, and I concur absolutely, the success of contingency planning depends on a very substantial commitment from resources from the agencies themselves. We can't do, in the chief technologist's office, contingency planning for the agencies. It must be done by the agencies and those agencies must take responsibility for their critical business processes.

We can help them, however, in many ways. We are building for them contingency planning kits, we are training agency personnel on contingency planning activities, and we are developing a contingency planning support desk. Our three pilot agencies for contingency planning are 911, water and sewer, and the lottery. These contingency plan pilots began in September of this year, and they will be completed by December of this year.

Lessons that we learn in these agencies, including the identification of critical business processes that are linked to critical systems, which we have already identified—those lessons we will take forward from the initial 3 agencies to the remaining 72 agencies. And we expect to complete the contingency plans for all 75 agencies by April 1999.

In terms of timelines for Y2K remediation and testing, GAO judges, and we concur, that we are about a year behind their recommended timetable. We have, however, completed our IT assessment. We expect to complete our non-IT assessment in December. We've identified all required IT remediation resources. We'll begin to provide testing guidance to agencies shortly, but we have not yet completed the identification of all the required resources at the departmental level. That will take the completion of our non-IT assessment.

Dr. Barnett mentioned that the District's system inventory consists of 336 systems. We began the remediation and test of the first of those systems in July 1998, and we will end the last mission-critical system work around the first of November 1999. In the intervening 15 months, we have several concurrent operating teams remediating other systems of the 336 which are mission-critical and require our first priority for remediation.

I repeat again, what the GAO witness said, because I think it's important. Of the 336 systems which we have, 84, or 25 percent of them, are currently Y2K compliant; 117, another 35 percent, require a full remediation and test; and the remaining 45 percent have already been remediated in their departments and require testing only.

Nine million lines of code, 20,000 programs, and an IBM automated remediation tool set that currently is remediating about 50 percent of those code lines on an automated basis, but still requiring 50 percent of those 9 million lines of code to be hand remediated; that's our challenge.

Before closing, I'd like to take a few truly not whining, but educational, minutes for the committee members to describe the environmental context in which we operate on a day-to-day basis. Y2K projects fail by molehills, not by mountains. I'd like to give you three examples of the types of problems we struggle with every day in the District. Problems we're solving quickly, but which every next day are replaced by other problems that need to be solved.

The first example: Initially, three agencies refused to accept the services of the District's Y2K project, and a fourth elected to receive only very limited services. It has taken a direct order from the Financial Authority to bring these agencies under the District's Y2K project tent.

Second, led by the chief procurement officer, every senior officer in the District strongly supports streamlined financial and procurement processes for the District. Historic inefficiencies run deep, however, and urgent Y2K activities often provide the discovery and tactical repair situation that allow District-wide procurement process improvements to be made, but they are made at the time expense of Y2K, the driving activity that has discovered the problems.

Third, because of the lack of IT investment in the District for several years, the test team is often unable to find written documentation. At one agency, day-to-day business activities have so overwhelmed the agency, that they were initially unable to provide adequate process descriptions to the Y2K team. Only when senior management insisted they suspend their normal work were the descriptions received. We're expecting to encounter similar situations at other agencies.

In closing, I'd like to recognize the chairman and members of the Financial Authority, senior members of Congressman Davis' staff, and GAO staffers assigned to the District Y2K, for their financial responsiveness, for their timely and collegial advice, and for their consultative expertise in strengthening the District's rapid recovery effort in Y2K.

Thank you.

[The prepared statement of Ms. Peck follows:]

Mrs. Chairwoman, Mr. Chairmen, and Members of the Subcommittees:

My name is Suzanne Peck, and I'm the Chief Technology Officer for the Government of the District of Columbia. I appreciate the opportunity to appear before your Subcommittees and to continue this testimony on Y2K. I'll cover the areas of financial and human resource availability, contingency planning, and time lines for Y2K remediation and testing.

Resource Availability (Financial and Human) Required to Address the Y2K Challenge

No District initiative has more importance than Y2K. From Congressional, Financial Authority, and District Government management perspectives, this effort has first urgency and first call on our financial and human resources. We've projected a remaining $40-$60MM District-wide expense for Y2K IT systems. Directionally, I expect a similar order-of-magnitude expense, $40MM-$70MM, to be attached to the city's needs (now in discovery) for departmental-level imbedded chip replacements – adding to a possible total of $80-$130MM. This number does not include departmentally-absorbed contingency planning, or re-training costs. Of this amount, $21.8MM has been funded, and $8.5MM spent. This leaves an additional funding requirement of $27MM-$47MM for systems expenses, and of possibly $40MM-$70MM for imbedded chip replacement expenses, to a potential total remaining funding requirement of $67-$117MM.

Our human resources focus is on the Y2K team and on citywide departmental resources. The District's 8-person Y2K team is led by a senior Y2K program manager and staffed by program oversight and functional service area professionals. The 50-person IBM team whom they lead is staffed by functional specialists in IT and non-IT infrastructures and assessments, conversion, testing, end-user and vendor management, and contingency planning. Citywide departmental resources are being made available on a priority basis to aid in system testing, to develop and implement contingency plans, and to lead departmental Y2K training efforts. Making these departmental resources available for Y2K places substantial strain on the departments, and sometimes requires suspension of their normal work.

Contingency Planning

The District's most important task over the next 15 months is to effectively manage the risk of disruption to essential city services. Y2K is not simply an IT problem; it's a business problem which extends beyond city boundaries. Having identified and prioritized the most critical operations in every city agency, we're now focused on contingency plans for these agencies.

We don't know which of the city's 75 agencies will *still* fail after remediation and test, but we're sure that a handful *will* fail. Consequently the mission-critical business processes of every agency about which Mrs. Newman spoke must be *ready* for failure and alternative operation.

Our departmental contingency planning model is straightforward. We're identifying the mission-critical business processes of each agency (including those of their supply chains and business partners) and deconstructing them into subprocesses and tasks. We're mapping the tasks into the assets required to support them. Then we're putting plans in place to conduct these mission-critical tasks through manual workarounds in the short run. For 911 emergency operations for example, which have already been initially tested, contingency operations dispatch emergency vehicles approximately 30-60 seconds later than normal operations.

The success of our contingency planning model depends on a *substantial* commitment of resources from the agencies. Contingency planning cannot be done *to* or *for* an agency. It must be done principally *by* the agency. Key stakeholders must *"own"* their critical business processes.

We're identifying responsible managers and support staff in each agency to establish and test their contingency plans. They'll be guided by our Y2K contingency team's expertise and plan templates. We're developing contingency planning kits, training agency personnel in contingency planning activities, and developing a contingency planning support desk. Our three pilot agencies are the Office of Emergency Preparedness ("911"), the Water and Sewer Authority (WASA), and the Lottery. These pilots began in September, 1998, and will be completed by the end of December, 1998. Lessons we learn in these agencies will be applied fairly simultaneously to the remaining 72 agencies. We expect to complete contingency plans for all agencies in April, 1999.

While the goal of our planning is business continuity, in the District we'll realize a disaster recovery planning benefit as well in our contingency planning activities. Currently only 2 of the District's largest 56 agencies have full-blown disaster recovery plans. A natural consequence of Y2K contingency planning is the emergence of elementary disaster recovery plans for the remaining 54 agencies as well.

Time Lines for Y2K Remediation and Testing

In terms of Y2K remediation and testing, the GAO judges we're about a year behind their recommended timetable. We've completed our IT assessment. We expect to complete our non-IT assessment in December. We've identified all required IT remediation resources. We'll begin to provide testing guidance to agencies shortly, but have not yet completed the identification of all required department-level testing resources.

As Dr. Barnett mentioned, the District's systems inventory consists of 336 systems. Remediation and test of pilot systems in the first of 4 functional service areas began on July 6, 1998. Remediation and test of the last system in the 4th functional service area is planned for November 1, 1999. In the intervening 15 months, operating teams will concurrently remediate/test other systems of the 336 which require it.

Of the 336 systems, 84 (25%) are currently Y2K ready; 117 (35%) require remediation and test; and 135 (45%) have already been remediated by their departments and require testing only.

Approximately 9 million lines of code requiring remediation were produced from our 2-month IT assessment. That's good news. We were expecting much more. Conversely, because we've conducted the assessment much more rapidly than normal (and through agency personnel interviews and surveys, without automated validation of agency-supplied data), we also expect to discover additional code lines as remediation and testing proceed.

As I mentioned, code requiring remediation is distributed across 117 business applications, consisting of about 20,000 programs, in 14 different agencies. For District applications, IBM's automated tools have been remediating, on average, approximately 50% of the code electronically.

After remediation, these applications will be tested according to the standard IBM Year 2000 Transformation Methodology. This methodology consists of regression testing, 20th century testing, 21st century testing, and a limited form of end-to-end testing.

The remediation test pilot we chose was the Pension and Payroll System from the Office of Payroll and Retirement Systems (OPRS). It consists of 750,000 lines of code. That code was successfully renovated and returned to OPRS on September 22, 1998, as scheduled in the project plan.

In addition to the 14 remediation agencies, 26 other agencies have 135 business applications, consisting of at least 7000 programs, which have been previously remediated by the agencies themselves, and only require testing. The schedule for this work is currently being built.

Before closing, I'd like to take a few educational minutes for the subcommittee members, to describe the environmental context within which we're working. Y2K projects fail by molehills, not mountains. I'd like to give you three examples of the types of problems we struggle with every day in the District on Y2K; problems we're solving quickly to achieve overall project success, but which every "next day" are replaced with others to be solved.

1. Initially, three agencies refused to accept the services of the District's Y2K project, and a fourth elected to receive only very limited services. It's taking a direct order from the Financial Authority to bring these agencies under the District's Y2K project tent.

2. Led by the Chief Procurement Officer, every senior city officer strongly supports streamlined financial/procurement processes for the District. Historic inefficiencies run deep however, and urgent Y2K activities often provide the discovery and tactical repair situations that allow District-wide procurement process improvements to be made - but at the time expense of Y2K.

3. Because of the lack of IT investment in the District for several years, the test team is often unable to find written documentation about how applications work. This requires end user staff to verbally describe how application process flows work. At one agency, day-to-day business activities have so overwhelmed agency staff that they were initially unable to provide adequate process descriptions. Only when senior management insisted they suspend their normal work were the descriptions received. We're expecting to encounter similar situations at other agencies.

In closing, I'd like to recognize the Chairman and members of the Financial Authority, senior members of Congressman Davis' staff, and GAO staffers assigned to District Y2K for their financial responsiveness, their timely and collegial advice, and their consultative expertise in strengthening the rapid recovery effort of the District's Y2K program.

Suzanne Peck
Chief Technology Officer

Before her appointment as Chief Technology Officer for the District of Columbia, Suzanne Peck worked on technology-related issues for over 25 years. Ms. Peck has developed expertise in a number of areas, including conceiving and building electronically-based technology enterprises, improving customer service and operational performance and providing and executing strategic vision.

For the past 16 years, Ms. Peck has held senior management responsibility for information technology efforts in a variety of firms. She has served in positions such as Vice President for Regional Technology Operations and Marketing, Systems and Computer Technology Corporation; Chief Executive Officer, Transys; Senior Vice President for Technology and New Business Activities, Student Loan Marketing Association (Sallie Mae); and Vice President for Merchant Banking System, Bankers Trust Company. She has contributed to the expansion and strengthening of existing businesses and has helped to establish start-ups.

Ms. Peck graduated cum laude from the College of Notre Dame of Maryland and received an M.B.A. with distinction from the Wharton School of Finance and Commerce.

Ms. Peck is a Lecturer on Total Quality Management at the University of Virginia and sits on the Board of Directors for the Concerto Soloists, based in Philadelphia.

Mr. DAVIS of Virginia [presiding]. Thank you very much.

We're going to start the questioning with Mrs. Morella, who is the chairman of the Technology Subcommittee on Science. Mrs. Morella, if you want to make any opening statement or you may include it in the record. Otherwise, we'll go right to the questions.

Mrs. MORELLA. Thank you, Mr. Chairman. I would like to ask, with unanimous consent, to make an opening statement. I'll try to make it very briefly.

Mr. DAVIS of Virginia. So ordered.

Mrs. MORELLA. I apologize for being late because of the two votes and conversations that ensued following them.

But I'm pleased to be here today. And as both vice chair of the District of Columbia Subcommittee and chair of the Technology Subcommittee of the Science Committee, I'm pleased to join with my distinguished colleagues, Mr. Davis of Virginia, the chair of the District of Columbia Subcommittee, and I know that Mr. Horn of California, if not here now, is here in spirit—he's been very much involved—as well as with Ms. Norton, who's always been very much of a leader with District of Columbia issues.

In the past 2½ years, since we first began, we've embarked on a review of how the Federal Government will be impacted by the Y2K problem. And unfortunately, it's given us cause. However, our first assessment of the Federal year 2000 efforts, in March 1996, when we determined that the government was not moving forward with the necessary dispatch to correct the problem in a timely and effective manner. We've been working very closely with the administration to make sure that the Federal Government will continue to operate without interruption.

And as a result, a great deal of progress has been made. First, we require the creation of a national Federal strategy. Subsequently, we've met our Federal oversight responsibilities by creating greater Y2K accountability and directing the government to strengthen it's quarterly reporting requirements by including a summary of costs to date, reviewing agency validation schedules, and ensuring successful interfaces with systems external to the Federal Government, including State and local governments, as well as private sector systems.

Yet, I'm still very concerned that, with little more than a year to go before the new millennium, critical government information systems may still be in jeopardy of not meeting the January 1, 2000 deadline, the date conversion. And the problems which plague the Federal efforts include the failure to adequately champion the year 2000 problem as a national priority, and not providing the critical leadership and coordination to business operation partners in both the public and private sectors.

Information systems experts have reported that the Y2K fix is rooted in management and oversight, not in the lack of technology available to address the problem. And unfortunately, valuable time has been lost waiting for management to embrace the magnitude and the consequences of this issue.

With congressional oversight over the District of Columbia, the hope was that the problems affecting the Federal Government would not be replicated in the local government. Unfortunately, we're being informed by the General Accounting Office that the

District is facing tremendous year 2000 challenges to ensure that vital services will not be disrupted. GAO suggests that the District has made only limited progress in addressing the year 2000 problem, and has lacked both the structure and the resources necessary to address the issue. And this is very troubling, which is why we have this hearing.

It appears the very same Y2K triage the Federal Government is now undergoing must also be performed here in the District. If that's the case, then the District must focus also it's attention and resources on the management and oversight of the most critical date-sensitive information and infrastructure systems, prioritizing, renovation, repair, and replacement systems that can meet the deadline.

The District must also accelerate the development of business contingency plans for those mission-critical systems that can't meet the deadline, in order to ensure the uninterrupted delivery of government critical services.

Management officials in the District, as well as the new mayor, must give the year 2000 problem a greater profile to aggressively promote century date change awareness for both information, technology information systems, and sensitive infrastructure applications. Officials should monitor, coordinate, and prove oversight over the progress over all governmentwide century date exchange conversion initiatives, with the primary goal of maintaining critical systems operations into the new millennium.

A couple of other points—the District also needs to identify to Congress, in advance, any allocation of extra resources of funding for any Federal agency critical mission programs. And someone in the District management structure should be identified and authorized to directly access and take control of any critical agency system that is in jeopardy of not meeting that January 1, 2000 deadline.

I really think that with this distinguished panel discussing it, with District of Columbia leadership, that I think we can, working together, prevent deficiencies and correct any year 2000 problem.

All of that being said in the way of a digest of the situation, I think one of our concerns is this whole concept of interoperability. And we can talk about any system as working exceedingly well, but it's like the hipbone connected to the thighbone, and you've got that interoperability. You also have, and maybe this has been mentioned in some of the testimony, but you have the embedded chips problem too. And I don't know whether you've all addressed it, but if you would like to comment on what is being done with regard to interoperability, and whether or not you're looking at the embedded chips. If you start off, that would be great.

[The prepared statement of Hon. Constance A. Morella follows:]

Opening Statement of
Congresswoman Connie Morella
Chair, Technology Subcommittee
House Science Committee

Oversight Hearing on the Status of the District of Columbia's Year 2000 Compliance Effort

Joint Hearing with the Government Reform and Oversight
Subcommittees on the District of Columbia and
Government Management, Information and Technology
Friday, October 2, 1998

As both the Vice Chair of the District of Columbia Subcommittee and the Chair of the Technology Subcommittee, I am pleased to join with my distinguished colleagues, Mr. Davis of Virginia, the Chair of the District of Columbia Subcommitee, and Mr. Horn of California, in holding this important hearing on the ability of our Nation's Capital City in meeting the challenges of the Year 2000 problem.

In the past 2 ½ years since we first began, we have embarked on a review of how the Federal Government will be impacted by the Y2K problem – and unfortunately, it has given us pause.

However, since our first assessment of the Federal Year 2000 efforts in March 1996 when we determined that the government was not moving forward with the necessary dispatch to correct the problem in a timely and effective manner, we have been working closely with the Administration to ensure that the Federal Government will continue to operate without interruption.

As a result, a great deal of progress has been made.

First, we required the creation of a National Federal Strategy.

Subsequently, we have met our Federal oversight responsibilities by creating greater Y2K accountability and directing the government to strengthen its quarterly reporting requirements by: including a summary of costs to date; reviewing agency validation schedules; and ensuring successful interfaces with systems external to the Federal Government – including state and local governments, as well as private sector systems.

Yet I am still very concerned that with little more than a year to go before the new millennium, critical government information systems may still be in jeopardy of not meeting the January 1, 2000 deadline for date conversion.

The problems which plague the Federal efforts include: the failure to adequately champion the Year 2000 problem as a national priority and not providing the critical leadership and coordination to business operation partners in both the public and private sectors.

Information systems experts have reported that the Y2K fix is rooted in management and oversight, not in the lack of technology available to address the problem.

Unfortunately, valuable time has been lost waiting for management to embrace the magnitude and consequences of this issue.

With Congressional oversight over the District of Columbia, the hope was that the problems affecting the Federal Government would not be replicated in the local government.

Unfortunately, we are being informed by the General Accounting Office that the District is facing tremendous Year

2000 challenges to ensure that vital services will not be disrupted.

GAO suggests that the District has made only limited progress in addressing the Year 2000 problem and has lacked both the structure and the resources necessary to address the issue.

This is very troubling.

It appears the very same Y2K triage the Federal Government is now undergoing must also be performed here in the District.

If that is the case, then:

- The District must focus all of its attention and resources on the management and oversight of the most critical date sensitive information and infrastructure systems, prioritizing renovations, repair, and replacement of systems that can meet the January 1, 2000 deadline.

- The District must also accelerate the development of business contingency plans for those mission critical systems that cannot meet the Y2K deadline, in order to ensure the uninterrupted delivery of government critical mission-related services.

- Management officials in the District, as well as the new mayor, must give the Year 2000 problem a greater profile to aggressively promote century date change awareness for both information technology systems and sensitive infrastructure applications.

- Officials should monitor, coordinate, and provide oversight over the progress of all government-wide century date change conversion initiatives, with the primary goal of maintaining critical systems operations into the new millennium.

- The District also needs to identify to Congress, in advance, any allocation of extra resources or funding for any federal agency critical mission programs.

- Additionally, someone in the District management structure should be identified and authorized to directly access and take control of any critical agency system that is in jeopardy of not meeting the January 1, 2000 deadline because of ineffective management action.

These are some of the actions required by District management officials.

With the strength, expertise, and management capabilities, of the District leadership, such as the distinguished panel before us today, I am confident that together we can overcome any previous deficiencies in correcting the Year 2000 problem.

Ms. PECK. Yes, I'd be delighted.

Mrs. MORELLA. Thank you, Ms. Peck.

Ms. PECK. There are, if you look financially, two almost co-equal parts to the Y2K problem; one is the IT systems portion and the other is the embedded chip portion. Embedded chips are ubiquitous. They are everywhere. They are in elevators; they are in HVAC systems; they are in alarm systems; they are in cameras; they are in water systems, telephones, pagers, security systems, call and accounting systems. They are in pumping stations; they are in traffic lights.

In order to deliver city services to the District, absolutely, financially, and from a citizen perspective, we have an equivalent problem in embedded chips that we have to the systems themselves. And our focus is equally on both of those problems.

As I mentioned before, we have completed an assessment of our systems activities and of the size and magnitude of our systems challenge. We are now in process, to be completed by December—2½ months from now of a total assessment, District-wide, of our embedded chip challenge, and of the activities and replacements we will have to make in those areas in order that all of the city services maintain themselves in year 2000.

Embedded chips are a heavy focus activity—one of the principal two.

Mrs. MORELLA. Are you also coordinating any interoperability—are you working with the private sector also?

Ms. PECK. Yes, we are very fortunate in having IBM as our partner in Y2K, because given the enormous scope of other Y2K work they have done, they have built a very, very substantial inventory of vendors of all types of embedded chip equipment. So in terms of having an inventory and a dictionary of vendors who are Y2K compliant, and of us not having to go through all the equipment we have and make those discoveries ourselves of the individual vendors, we simply can go many, many times to the IBM inventory and discover that equipment either is Y2K compliant or is not compliant. That is for the equipment itself, so we are very far ahead of the game in having that inventory.

We also have our own District-wide inventory which we are keeping, through which we are making our own discoveries of equipments that are or are not Y2K compliant, and of the exact interoperability functionality that you've spoken to. So we are building those data bases now, so that everything that we discover is kept and is reusable for us.

Mrs. MORELLA. So you feel somewhat confident that you're going to be able to make the deadline, and have your contingency plans, and we'll have a seamless kind of continuation of services.

Ms. PECK. I have been reporting, Madam Chairwoman, for some time, even at the very beginning of this project, that citizens, taxpayers, businesses, tourists—the end-users of our city services—would see only very slight effects of any failure that we had in Y2K. And I've reported that for this reason—contingency planning.

Because we don't know which of our agencies will fail. We only know that no matter how much we do in Y2K, we can't be perfect. We don't know which of the agencies will fail; we know that some will. Because of that, the development and the implementation of

very, very precise contingency plans, alternate manual plans in every agency has been a principal focus of ours.

What will happen January 1, or any of the other Y2K susceptible failure dates, is that end-user services will continue to be provided. If there is chaos, if there is inefficiency in any agency because there has been a Y2K failure, it will be within that agency as they operate on their manual contingency plan, rather than against their normal automated operations. So we may well have inefficiencies within particular agencies, for a modest number of days, within a particular agency. But because of the contingency plans, that should not be visible to external receivers of the services.

Mrs. MORELLA. The chairman's been very generous with his time, and so I'm going to yield back and ask questions later.

Mr. DAVIS of Virginia. Thank you. Let me recognize our ranking member, Ms. Norton.

Ms. NORTON. Thank you, Mr. Chairman. I want to begin by congratulating the District with some invisible sign of your progress on the Y2K problem, because I'm holding in my hand a driver's license which I recently had to have renewed, which has an expiration date 1/3/01. And my executive assistant, Sheila Bunn, has a grand slam. She has one that says 7/11/00. So I know that you're doing something right, and I congratulate you on it, and I'm sure it's——

Mr. DAVIS of Virginia. The pictures still aren't very good, but you get the rest of it. [Laughter.]

Ms. NORTON. Moving right along. [Laughter.]

Let me begin with Mr. Brock. I was interested to read your report and testimony, and somewhat surprised by some of what you report. I've also read of what the GAO has found with respect to the Nation generally, and the Federal Government in particular. A survey, for example, that showed that of 1,650 cities, nearly a quarter had not begun to address the Y2K problem. Your finding that all of the States, and it's apparently 50 States, have indicated they will not be able to renovate all of their systems in time, and therefore are focusing on the mission-critical systems.

While, if you know me, you know I'm not interested in giving a pass to the District, but rather, in prodding them and congratulating them as they move, I would like to get some sense of where the District stands. Because given the testimony here today, one might even believe that the District is now responding more rapidly to the problem than many cities, and even many States.

Could you evaluate the District—I'm still a teacher—I still teach a course at Georgetown Law Center, so I have to confess that I do still mark on the curve. I'm trying to find out, relatively speaking, where the District stands. Because too often, the District is everybody's worst case scenario, when that really may not be a fair assessment.

Mr. BROCK. First of all, Ms. Norton, we have never looked at another city or State, so it would be impossible to say where the District ranks in comparison with other cities and States. However, we have information from a number of sources that indicates that States and cities are generally behind other sectors—not just the Federal sector, but other private sectors as well.

An advantage the District has—sometimes they may view it as a curse, but in this case I think it's an advantage—is there is visibility into their process. And as a result, there's an opportunity to not only examine the status of the District, but also to provide assistance, advice, and consultative services in terms of improving their process, and I think that's exactly what's been happening.

So in that case, the District has an opportunity through this visible government process, of airing it's problems and airing it's solutions, and giving people an opportunity to buy in. Some of the other locations, cities, et cetera, governmental entities across the Nation, aren't involved in that. And I think, as a result, there's a great deal of uncertainty.

One of the things that we've urged the President's Y2K Conversion Council is to take a more active role in outreach to cities, local, State governments, et cetera, to provide them with some of the information, an impetus that they might need to be ready. For example, we're completing a review on the Bureau of Prisons, and discussing where they are in terms of Y2K readiness. But to us, the real issue is the State and local governments that house most of the prisoners in the country, and the Bureau has been neglectful in working with their counterparts in the State and local governments to give them advice on what needs to be done, so there will not be a problem.

So again, I apologize for the length of the answer. It's impossible to put the District on a curve, but I think it is possible to say that now there's a visible process, so you're better able to gauge the progress and develop a level of comfort as to where they are.

Ms. NORTON. I take it you haven't looked at the regional entities in Maryland and Virginia, as part of your evaluation of the District's process?

Mr. BROCK. We have not. We've only read some of the material they've put together, and some of the publications they put out. But it seems to me from reading those materials, that while thought is being given to it, I don't see a lot of concrete solutions about how to address common problems of transportation, commuting, power grid issues, working with local telecommunications, and other vendors as well. This is a whole community. If the District fails, then there's a sense of failure everywhere. If Montgomery County fails, or Fairfax County fails, then there will be that same sense.

Ms. NORTON. And so, in a real sense, you can't really evaluate the District, given the way we are hooked into the suburbs of Maryland and Virginia, with respect to Metro, and phones, and the rest, without looking also at them.

Mr. BROCK. That's correct.

Ms. NORTON. Could I ask you, as well, trying to get a handle on this—particularly, a handle to keep us from the "chicken little" scenario, which I think is running around this issue everywhere—you indicated, and here I'm using your words as I wrote them down, that we're dealing obviously in a city with very complex operating systems. I would venture that they would probably be far more complicated than a Federal agency. And the testimony here has been that the District is willing to take risks to ensure that the work is completed on time, that it is over a year behind, and that

it is going to have to do some of its work in parallel, rather than in sequence.

I'd like you to assess how risky this is. Is this really high risk, is this what everybody else is doing, and is this likely to produce satisfactory results?

Mr. BROCK. Well, Y2K is a very high risk situation. One of the things that any entity would need to do is to assess each of it's business processes—I'm not talking about systems now, but business processes—and make a determination about how critical the underlying IT and non-IT applications are to that process. And if, in fact, a date failure would cause that process to fail, then you're at risk of having a key business process fail. Which is one of the reasons you need to develop a contingency plan, even if you think you've remediated the problem.

That's why we're urging the District to focus on key business processes and the underlying systems.

Ms. NORTON. Mr. Brock, I want to know something more specific. And that is, how risky it is to do the work in parallel, rather than in sequence? Is that so risky—so much more risky—and is that what most folks are having to do now?

Mr. BROCK. No. If you started earlier, you can do it in sequence. I think at this point in time, the District is taking appropriate action to do things in parallel. That's about the only option they have.

Ms. NORTON. And that's being generally done throughout the country, isn't it?

Mr. BROCK. It depends on the entity. Some entities that started several years ago, don't have to do that. They can take a more orderly process.

Ms. NORTON. How about the Federal Government?

Mr. BROCK. It varies from agency to agency.

Ms. PECK. Ms. Norton, could I——

Ms. NORTON. By all means, Ms. Peck.

Ms. PECK [continuing]. Answer from my perspective. Normally, things are done sequentially, not concurrently, because there are dependencies that prevent things from being done concurrently. One of the few happy circumstances about Y2K, especially as we came late, is that overwhelmingly, the bulk of the systems and the underlying business processes in the District are independent of each other. So that in terms of risk, while it is risky to do things concurrently because you have a lot going on at the same time, in this case, because the systems are independent of each other, there is much less risk to doing things concurrently. And it is the happy circumstance that we're able to do that.

We do have other advantages, because we have come somewhat late. The team that we have from IBM is a very, very experienced team. They have literally, within reasonable limits, the ability to make that team as large as we need concurrently with very, very well trained and experienced people on Y2K. They've come from other Y2K activities, so we are advantaged.

And so, by lovely circumstance, doing things concurrently—remediating all of our systems relatively concurrently—is less of a risk than it might be in any circumstances where the activities were dependent on each other.

Ms. NORTON. That's a very good job, Ms. Peck, of making lemonade out of lemons—we're late, but there's some advantage in this being late, and I buy that.

Ms. PECK. There are.

Ms. NORTON. No, no, no—I want to go on. Mr. Chairman, I'm going to ask one more question, so you can rotate your rounds, because I have a number of questions.

This question has to do with—it really is for Ms. Peck and Ms. Barnett—it has to do with something in Ms. Peck's testimony, in which she says, "contingency planning cannot be done to or for any agency. It must be done principally by the agency."

So I've got to ask you, given the fact that there's not a lot of confidence in District of Columbia agencies yet, because they're only now themselves being renovated, is this dependency on work within the agency a sign that we may be in more trouble than we would be if our agencies were up and running at the level of excellence we are seeking?

Ms. BARNETT. Let me just say that I agree with Suzanne's statement, that contingency planning, to be effective, has to be done by the people who will ultimately be responsible for carrying out the contingency plan. But we have not structured this in such a way that they have to do it by themselves. So there's a great deal of attention being given to what a contingency plan needs to have, there's technical assistance, as well as——

Ms. NORTON. Is that from IBM?

Ms. BARNETT. Yes. So that I feel confident that through the planning process that we've designed, that it not only will help us on year 2000, but I think that it's also a way that we'll have an expected benefit of having good contingency plans for other kinds of emergencies.

Ms. NORTON. I just want to say, Ms. Barnett and Ms. Peck, there's nobody in the Congress, and I think nobody in the District, that thinks that they're anything like the capacity to assist, with experience, this in our agency—our agencies. Our agencies don't have up and running technological capacity. So unless this were inside the agency, it's essentially being led almost entirely by experienced people.

There can be no confidence anywhere, I think, that there will not be glitches. This is no reflection on the people in the agencies, but if they had not been given over the years the kind of technology that—of the ordinary kind—I can hardly expect them to leapfrog and be able to somehow accommodate this complicated problem without enormous outside help.

Thank you. I'll wait for the next round, Mr. Chairman.

Mr. DAVIS of Virginia. Thank you. Now on June 19 of this year, I wrote to Dr. Brimmer, regarding the status and the oversight issues relating to the District's Y2K challenge. In his response, a cost range to address the challenge was established at $18 to $45 million. That was in June. Does anybody know how that number was determined, and how much has been spent on the effort so far?

Now we're talking about costs of $80 to $130 million. And this is just in a 3-month period. What has accounted for the discrepancy? That is a huge discrepancy over what was in his letter. I think our best guess here is that about $8.5 million has been spent

so far. On what has the $8.5 million been spent? Is there anybody who wants to answer the question?

Ms. PECK. Yes, as we mentioned earlier in the testimony, we are funded at $22 million, of which $8.5 has been spent. In response to your question, where did the original $18 to $45 million come from—I think the answer to all financial questions on Y2K is discovery. That number was a rational number, given the discovery of that time and place, and as we have——

Mr. DAVIS of Virginia. The Federal Government's numbers keep going up—just as a comparison.

Ms. PECK. It is discovery. There is what is known to exist, there is what people suspect to exist, there is what you—in addition to all that discover when you go in. And on top of that, even when you have your entire inventories taken, on a daily basis you make additional discoveries of systems and nonsystems activities that have to be taken care of.

Mr. DAVIS of Virginia. Dr. Barnett, do you want to address that or do you Mrs. Newman?

Ms. NEWMAN. I was just going to say, to be honest, Mr. Chair, at that time, we were really just beginning the process. I think there was an honest effort to give you some answer, but we were really not in a position to be very specific about the assessments, because it had just really started.

Mr. DAVIS of Virginia. When you get your plan in place, then there are no surprises. Or at least along the way, you can track how this comes. That's why it's great to have them. I think Ms. Norton pointed out that all levels of government are struggling with this. The difficulty in the city is—when you came on Dr. Barnett, very little had been done. Isn't that correct?

Ms. BARNETT. That's correct.

Mr. DAVIS of Virginia. You can find out in terms of addressing this issue that the city was just trying to keep it's head above water. This was probably the last priority you could imagine addressing when you're just trying to make sure you're getting the paychecks out on time, and everything else. We recognized it—and I think the first major step is identifying you have a problem, then make an assessment, find solutions, and then test them. We're just a little late.

My concern is there's a limited labor market that does this type of work. The later you begin, the more you have to pay, because you're having to pay a premium for people for not having them on board a year or two earlier. How will you do this? Will you be doing this through bringing people in to city government, or are you just doing it through contractors, and if so, how are the procurements—do you go through the usual procurement process? If you bring somebody in quickly, then somebody says you did a favor for somebody. What's the strategy on that? Any of you want to address that?

Ms. BARNETT. Well, it's a dual strategy. We have set up a year 2000 program office within the chief technology office. We've hired a Y2K program manager; she's here with us today—her name is Mary Ellen Hanley. We're very pleased to have her here.

Mr. DAVIS of Virginia. If she could raise her hand? Thank you. Welcome.

Ms. BARNETT. And so she's here, and she has also now completed the hiring of her core staff for Y2K. So we have on board a full contingent of city——

Mr. DAVIS of Virginia. What's her background?

Ms. BARNETT. Would you like to come and talk about your background?

Mr. DAVIS of Virginia. If you'll just give me your background.

Ms. HANLEY. I've come out of information processing and data center management, and Y2K experience.

Mr. DAVIS of Virginia. OK. Are you fluent in COBOL and all that?

Ms. HANLEY. At one point in my career, I was, yes.

Mr. DAVIS of Virginia. OK.

Ms. BARNETT. In addition to the staff that we have hired, we have on contract IBM. And IBM has the capacity to put on contractors—the number of contractors—that's necessary to respond to the changing conditions. So that's the way that we're handling it.

Mr. DAVIS of Virginia. Kind of mega-contract, and within that vehicle, they have a lot of discretion.

Ms. BARNETT. And when we begin really the balance of the remediation, we'll be breaking that contracting process up into about four different chunks, all supervised by IBM. We've designed this so that we can get the maximum number of talented people on this, but keep it coordinated.

Mr. DAVIS of Virginia. We heard testimony in this room in the Transportation Committee earlier this week by some experts talking about windowing. Do you know what windowing is?

Ms. BARNETT. No.

Mr. DAVIS of Virginia. Windowing is a temporary fix; it is not a permanent fix, where you can take the 28- or 30-year cycles and address the issue on a temporary basis that way, while you are working for a permanent solution. It works in a lot of cases, but it does not work in every case. I am sure your IBM folks are looking at that. I would hope they are looking at that solution. I'd like to hear back from you in terms of whether it is viable for certain pieces of this.

Because we want to get over the hump, and my guess is that in the city's case, we are going to be with this Y2K problem far after the year 2000. These issues will not all be addressed on that day, that little snags will come up here and there over a period of time. Of course, the real problem is not just what you do with the systems, it is the systems that you are interacting with that right now you have no idea how good they are. You can do everything right, but if these systems are not good, then you may need time to test them.

But from the consumer perspective, if they are not getting their paycheck on time, if the traffic lights are not working, if the trains are not running, then they will not care who it is, and will find somebody to blame. And at this point, we just don't want it to be here. That is why we are holding this hearing.

About a year ago, I understand the city administrator's office presented a Y2K compliance plan to department heads, and that funding was identified for preliminary assessment and more de-

tailed evaluation. Any idea what happened to that plan? Do you know?

Ms. NEWMAN. My understanding is that the problem with that plan was that it analyzed the problem by agency and not by priority application.

Mr. DAVIS of Virginia. Fair enough.

Ms. NEWMAN. When you really get down to it, what is important is what are the applications that will affect the public, and what are the ones that will affect the dollars, and then some of the other applications are less important. So to go by agency and say these agencies are more important than the others, does not get you at the problem.

Mr. DAVIS of Virginia. Right, because you're funding low level priorities.

Ms. NEWMAN. You are funding low-level priorities. And my understanding of the city administrator's plan is that the key approach was at the agency level and it did not work.

Mr. DAVIS of Virginia. That's OK, if you have all the time in the world, but we don't.

Ms. NEWMAN. Yes, but we were too late. And I do not even think that if we would have been on time, that would have been the way to approach it.

Mr. DAVIS of Virginia. If you could just trace for me again the current management structure that will ensure communication, coordination, and cooperation among all the critical decisionmakers at the control board, the chief management officer, and the chief technical officer, and the city council. If you could just walk me through how this is being managed. One of the criticisms of the structure we have now is that no one person is in charge. Where does the buck stop?

Ms. NEWMAN. Well, I'm going to let——

Mr. DAVIS of Virginia. Who do we call when things don't go well?

Ms. NEWMAN. As far as the Authority is concerned, the buck stops with the Authority, which is why we are having constant hearings and constant briefings by the chief management officer and the chief technology officer. The chief management officer can describe for you the organization within the administration, but even having said that, ultimately, you will have to call us, and that is one reason why I think we are interfering more than we would normally with them and their process here.

But, Camille, why do you not talk about the committee.

Ms. BARNETT. We have several mechanisms that we've set up to coordinate the various activities and there at various levels in the organization. We have what we call the citywide executive steering committee, which has representatives from the control board and the city council, as well as Suzanne and I sit on that, and key agency heads also are part of that team. Then we have what we call a chief technology officer's steering committee, which are the senior technical people throughout the city organization, that meet regularly. Then there is also a senior functional group, which are essentially agency managers, so those would be the department directors that would be meeting regularly and talking about these. And in each of the departments, there are also coordinating task forces set up that particularly deal with their core businesses.

Mr. DAVIS of Virginia. Do you feel that you have been delegated sufficient authority, Ms. Barnett?

Ms. BARNETT. I think the control board has made it clear that all of the agencies need to be involved in the year 2000 remediation effort together, regardless of their reporting relationship.

Mr. DAVIS of Virginia. But do you feel, as the chief management officer, you are given the appropriate authority here to get everything finished?

Ms. BARNETT. I think so, yes.

Mr. DAVIS of Virginia. OK. Let me recognize Mrs. Morella again, for any additional questions she may have. Thanks.

Mrs. MORELLA. Thank you. You know, we hear about the fact that there's like a cottage industry of lawyers just waiting and in anticipation of lawsuits, and we also know that some States and jurisdictions have passed some laws in anticipation of Y2K-related lawsuits that are like limiting liability type legislation. I just wondered, is there any consideration that the city council or the control board may be looking at any legislation of that nature?

Ms. PECK. Our dependency now is on the Federal legislation that would limit liability if information were given that turns out not to be exactly precise. But that national legislation does not limit liability for an actual event, which the enterprise itself has performed some mistake on.

Ms. NEWMAN. And I would just say that all of the conversations that I have held with Councilwoman Patterson, who is the lead member of the council, have revolved around her concern about getting the services to the people and fixing the problem. I have not had a conversation with her about the liability issue, but I will raise it. I do not think it is at the top of the concern of that committee.

Ms. NORTON. Will the gentlewoman yield? You do know of States that have indeed enacted such laws?

Mrs. MORELLA. Yes.

Ms. NORTON. Could I ask that this be investigated? The District would be the first to be sued for God knows how much, and I'm pleased the gentlelady has raised it, and would like you to look at those laws and see if they are appropriate to the District of Columbia.

Mr. DAVIS of Virginia. Nevada is one State that has put forward laws on this. Obviously, in the gaming industry, a lot of money can be lost if the timing's bad. Would the gentlelady yield to me just a point further.

One of the difficulties is if you put the law out too quickly and you're giving immunity too quickly, then nobody has incentive to fix it. On the other hand, this city having more lawyers per square inch than any other jurisdiction on the planet, it would be a great haven if there is no kind of immunity.

So, whether you're an insurance company, whether you're a hospital, or a bank, there can be great liability problems with this, and it would be appropriate for the city to address them. We'd be happy to work with you, as we look at other States that have enacted similar laws.

In Nevada, as I understand it, it's almost like an act of God if somebody gets hurt on Y2K computers.

Mrs. MORELLA. A number of other States have introduced legislation that's going through the process. Last night, our Federal bill just passed unanimous consent, so at least that's going to help to facilitate the data exchange. It's not strict liability. I would also agree with the chairman that we are to be very cautious we don't fill it out too easily, because then you're going to find entities, whether they're governmental or the private sector, that say, well, we don't have to really push forward.

Ms. NORTON. Would the gentlelady yield one remaining moment. I don't think one would be—I'm not talking about immunity. I'm talking about some kind of capped liability so the District is not sued for $1 billion by somebody. I wouldn't suggest that the District should be immune from its own errors. But the District is the only jurisdiction I know that leaves itself wide open to be sued for the full amount for any and everything. So I think that we need to take special caution.

Mrs. MORELLA. Yes, exactly. But I mean, that's what we're trying to get at. So there can be the honest data exchange, information exchange, so that you don't have every entity feeling like an island where they cannot share, that they're afraid of what they say, they can't get any insurance. And certainly, the District of Columbia to look into that, I think, would be appropriate.

Now we had a hearing the other day, Technology Subcommittee, where we did it from a consumer point of view. It was like, what should consumers know about this. Because my feeling is, somewhere between "Chicken Little," who said, the sky is falling, and "Pollyana," who said, don't worry about anything; everything is OK—but you know you read in the paper about people who panic and someone who says, I'm going to get a vegetable garden, so I won't have to rely on other entities, or I'm going to take my money out of the bank and put it under my mattress.

We did come out with a little flyer on what every consumer should know to prepare for the year 2000 problem. It may be that at some point along the line, the District of Columbia may want to do something. You can certainly look at ours. It was also the Business Software Alliance that helped, and Consumer Electronics Manufacturers Association, and the Information Technology Association of America.

My final question really is, how do you reach out to the private sector in the District of Columbia? I know you've said IBM is helping set this up, but how do you work with the Board of Trade, how about the small companies, how about the electrical utilities? Any of you feel like you'd like to comment on that?

Ms. PECK. We're currently working through council government, through COG. At our most recent meeting last week, Janet Abrams offered to be the liaison and intermediary to several of the local utility companies, because individual enterprises such as ours—and this particular meeting was a meeting of all of surrounding county and municipal entities—all of us having some difficulty currently getting information from utility companies.

And council government and Janet, through the President's Y2K Council, have offered to act as liaison organizations for us, and as organizations that would also keep inventories of information for us, and that would capture information for us in a central place,

so that we all didn't individually have to go get this information. That is a tremendous boon to us, and a tremendous benefit to us.

So we are really less attempting to go to each individual interface entity, and we are attempting much more—and I think we will be very successful in using the President's Y2K Council and in using council of government to attract that information to all of the jurisdictions in a singularity.

Mrs. MORELLA. Do you meet with the President's Y2K Council?

Ms. PECK. Yes.

Mrs. MORELLA. How often? Is it a regular, weekly get together meeting?

Ms. PECK. It's a monthly activity.

Mrs. MORELLA. Monthly. And that's working out successfully?

Ms. PECK. Yes, and those are major activities. Usually, we're using them as liaison people when we have difficulty getting to other organizations or when there's information that we have difficulty procuring. They've been very, very successful in providing that intermediary function for us.

Mrs. MORELLA. Well, I'm glad that we had this hearing, Mr. Chairman, because I think it's important that we know what the District is doing. It sounds like they have a late start, but they are on the correct road. I hope you will report back to us periodically, because we have no continuing resolution opportunity for Y2K.

People need to realize that there are going to be inconveniences. I mean, I know we're not going to be ready totally, so we're going to have to have contingency plans. People have to know there will be some inconveniences, but mission-critical systems will be taken care of.

So, I thank you, and wish you well.

Mr. DAVIS of Virginia. Thank you. I now will recognize the gentlelady from the District of Columbia.

Ms. NORTON. Thank you, Mr. Chairman. Mr. Brock, I believe that you testified that three agencies were not participating, I take it, in the Y2K. What are those agencies, and why are they not participating?

Mr. BROCK. The three agencies that were identified to us this week that were not participating were the court system, the superior court, and the housing authority. And they've refused to participate in the program office's assessment activities. That means, at that time when the program office was identifying the mission-critical systems, they were not given a list of mission-critical systems.

It was also reported to us that some agencies don't consistently attend all of the management meetings, and don't always follow through on their assessment commitments. And this is another problem across the board, but happened enough that it was a matter of concern.

Ms. NORTON. Ms. Barnett, what's your response on the nonparticipation part of that answer?

Ms. BARNETT. Well, on the areas that were discussed with the housing authority, the superior court, and the D.C. court system, that was discussed with the control board last week at their meeting, and that is the reason that there is an order going from the control board to these agencies to bring them into compliance. I

also think that that order will help us with the follow through on some of the agencies that are not direct reports to me—that's the general area where we've got some compliance problems.

Ms. NORTON. The courts may present a special problem, and I will undertake—first of all, let me ask Mr. Brock, were you given any information as to how they are seeking to comply? I can't believe they're doing nothing.

Mr. BROCK. No, ma'am. We do not know what their remediation efforts are, and it's our understanding that the contractor for the District has very little information on what their remediations are as well.

Ms. NORTON. Because the courts and the President's revitalization plan are now under the Federal Government, my office will seek information on the courts. The housing authority is somewhere in purgatory here. It's a District agency, but it's under the courts. I should think, however, one of the best managers in the city is the receiver, and I would think he would be the first to want to cooperate. I take it—Mrs. Newman, are you seeking to get his cooperation?

Ms. NEWMAN. I think there is a stronger way to put this. We sought the cooperation and now there is a very strong letter going from Authority to the receiver, saying that this is very important for the city that he participate in this. This is not just a favor that we are doing for the receiver. It will be interesting to see his response.

Ms. NORTON. Well, would you let us know within the week, what his response is.

Ms. NEWMAN. I certainly will.

Ms. NORTON. Because if everybody is starting late, we need to know. I can't believe that the housing authority, which has been one of the best agencies has not already begun to do something. And if not, we need to know that right away.

I am interested in knowing whether we are merely fixing existing decrepit computer systems to make them compliant with Y2K, or if Y2K compliance is being pursued within the context of our broader need to upgrade our technology systems. If I can give you an example.

One of the best known in the city is 911—that's a danger to the life and health of every citizen. I know it for a fact. And I know that the reason it hasn't been fixed is because of the computer problem. And of course, as soon as the computer problem and the personnel problem are online, then it will be fixed. Meanwhile, you folks out there who need 911, are on your own.

As you deal with Y2K and 911, do you have a plan for dealing with 911? Are you pasting Y2K on what they've got there?

Ms. PECK. As I mentioned earlier today, about 25 percent of our systems are already Y2K compliant. That's because Y2K compliance can be achieved either by, just as you say, remediating systems, by retiring those systems, or by replacing those systems.

And because, again, the District had for so long not made technology investments, we have taken the opportunity to replace and upgrade to the next generation many of our systems. Included in that general plan of upgrade the 25 percent of the systems being upgraded, are the city's principal financial systems and principal

personnel and payroll systems which have just been upgraded. Additionally, we have very near term plans in place for a very broadly based update of all of our 911 and computer automated dispatch operations.

Ms. NORTON. I know this is very difficult, because obviously, you are faced with overall technology problems, yet you must get the Y2K problem done. I can appreciate that. I just hope you're not put in the position of having to go back over these systems several times, when you've got to meet your deadlines. I understand that.

Mr. BROCK. Ms. Norton, could I add to that, please?

Ms. NORTON. Please, Mr. Brock.

Mr. BROCK. A point that was made earlier by Mr. Davis. The District is using a windowing technique. This is a temporary fix. The District will have to go back and make permanent fixes to these systems or replace them. One of the difficulties of the compressed schedule they have, and the contractor made this clear to us, is that poorly functioning systems that are remediated will continue to function poorly. The Y2K, the date problem, is fixed, but any inefficiencies in those systems aren't being addressed. So for systems not being replaced, but merely being repaired, to the extent those systems work great, they'll continue to work great; to the extent that those systems weren't very efficient, they will continue to be inefficient.

Ms. NORTON. To me, given their deadline problems, is it within their capacity to upgrade an entire system, or are they driven to having to deal with the windowing technique, or other such short term fixes?

Mr. BROCK. It would depend on the complexity of the application. But I think at this point in time, it's very risky to start replacing systems, given the lead time necessary to procure the system, to install it, to test it, to make sure that it's ready.

Ms. NORTON. Yes, I can understand that. The District has such an overall technology problem, that Congress mandated the Authority to work with the city to reform all it's technology functions when we did the revitalization plan. I'd like to know whether this emergency, as it were, has essentially displaced all other work to upgrade the technology of the city.

Ms. PECK. As I came to the city 120 days ago, here's what I found. Usually in technology—and again, I will use the word sequentially—you are invited to do things sequentially. First, to stop the bleeding and stabilize the technology. Then to lay into place the technology infrastructure for the enterprise. Then to lay in all of the applications which the enterprise needs. And finally, to globally integrate all of those applications.

As I found the District, technologically, 120 days ago, the dance to which we were invited was not sequential—it was concurrent. All of those activities from the lowest "stop the bleeding activity," to the most global, integration activity, a portion of each of those had to be carved out and done simultaneously.

Certainly, overwhelmingly, Y2K was the largest "stop the bleeding," stabilization activity that we had, and the most important. But there were many other stabilization activities, and there are many other stabilization activities which are going on simultaneously with that.

If we are ever to be the Nation's capital in technology, there are many activities which I have authorized at the infrastructure level, at the applications level, and at the integration levels as well which must be completed. All of them must be done simultaneously, with Y2K standing at the top of the heap, having our first call on resources.

Ms. NORTON. Well, my question Ms. Peck is, are they being done at the same time that Y2K is being worked on?

Ms. PECK. Yes, yes—concurrently.

Ms. NORTON. So that systems in various agencies are being technologically renovated and overhauled at the same time that you're working on the special Y2K problem?

Ms. PECK. Yes, yes. The Y2K team is absolutely free-standing and independent. It is focused, it is large, it is well organized, it is well managed, and it is experienced. And it is a clump working on Y2K, and there are other clumps doing the other activities, as well—all simultaneously.

Ms. BARNETT. Let me add to that. The principal place where we have new technology applications are in our management reform project, and they are moving ahead. As Suzanne has said, we have to do both of these things at once. There is more technology work going on in the District than I have seen ever in any organization. There's a substantial amount of it. And the idea is to get it done together, and to get it done on time.

Ms. NORTON. One final question, Mr. Chairman, if I may. As you may know, I'm focused on the next 2 years, when home rule is to return to the District. The subcommittee—has been concerned all along that the District manages to get things done, but we have seen very little in the way of plans, so that one knows that the city moves on a plan, timetable, and functional basis. Over and over again, that has been a concern.

It becomes an urgent concern because I do not want to be put in the position 2 years from now that somebody jumps up in my face on the House floor, and demands to know why XYZ hasn't been done, or indeed what has been done. So, that while I think we can all take heart at what you've said today, I have to ask that you show—and I know the chairman expects to have a hearing on management reform—that you show the committee what your management plan is for accomplishing the total renovation of the city government. I cannot say enough.

I try to move ahead of where I think the Congress is going to be, about how it is impossible to overhaul a government that was in the state ours was in, just doing it as quickly as you can.

And even with respect to Y2K, that is the impression we're being left. It's being done, it's being done as quickly as you can, but not that there have been systemic plans with timelines that have been met, until you go on to the next one, or you didn't meet the timeline, but you set a new one. The people who get things done in the world either get them done that way, or they get them done out of their hip pocket.

The District is a hip pocket jurisdiction, and we very frankly, on this subcommittee, have not seen—while we see lots of progress in the District—you don't insight confidence from the subcommittee, because we don't see the plans.

I've got to ask, Ms. Barnett, what is the status of the overall management reform of the District of Columbia government, which is the outstanding problem if we are to get home rule back?

Ms. BARNETT. I think we've made good progress this year. We have good progress on our management reform projects that have been approved by the Congress, as well as the local mayoral council and control board. And so those projects are underway. In addition, I think that we have improved services outside of these management reform projects that people are seeing as real improvements in their services.

So, I think we have begun to see some momentum there, and I think particularly when we get our technology applications and some of these things that are underway but not completed, we will see some really substantial results in management reform.

The Authority expects to give a full report to Congress, as required, at the end of this month, on progress in all areas, including very specific progress on each of the management reform projects, as well as all operational improvements in the government.

Ms. NEWMAN. Congresswoman Norton, the highest concern of the Authority now is to ensure that the delivery of services is improved. Whether that is through the management reform vehicles, or better management without using the resources of the management reform. But on a meeting by meeting basis, the chief management officer has to report to us on improvements in service delivery and on building a stronger management team and work force team.

In addition, she has to show us how she is investing in the work force. It is not just putting money in to deal with resource problems, but to build the capacity which you are concerned about, of the city to govern itself because its work force is prepared. We are all very serious about this, and I think that the chief management officer may, by the end of the term with us, be sick of us, because at each meeting, she has to report what is happening in management reform.

Ms. NORTON. I'm pleased to hear that. I just want you to know that improvements have typically been made in the city government. It hasn't been a government that hasn't made improvements. They have always been episodic, and it has always reverted to type. And what the subcommittee expects, and what the Congress expects, is that the District government will be taken apart and put back together again.

Perhaps the most incisive comment I've heard came from the police chief, when we asked him why weren't the PSA's quite working in some places. And, he said, it was because they took the notion of community policing and fastened it onto the existing system.

You are dealing with a system—this is not a city where you need to have some improvements in services. While I'm sure that the services differ, some are much better than others, there is no way for us to assure that when the control board goes away, it won't just all revert to where it was, unless somebody has diagnosed it, and said OK, this is an opportunity to take the whole thing apart, junk it, and start again. And I am not sure we see that happening, because I think you're under such pressure to simply improve what we have.

But if all reverts to type when the control board is gone, there will be hell to pay. And while that methodical way of doing it is very, very frustrating, it's the only way to assure that a government that has been built like tops, given to us by the Federal Government in putrid shape, then of course, we did what all governments do—they simply build on what they have. Well, finally that broke down.

And what the subcommittee expects is that it will all go away, and we begin again. That doesn't mean that every part of it goes away, but it does mean that agencies will be consolidated, that systems will be taken apart, and repaired, put back together again, that the government will look totally different from what it did. And the government does not look much different from the way it did when the government went down—it's got the same number of agencies, it's kind of the same ball of wax. And I don't want to simply encourage you to make it look different for differences sake, but I do want to say that we're looking for dramatic changes in every respect in the government.

I want to say to you, finally—I think it's Mrs. Newman, or no maybe you, who talked about a report—I'd like to see the government reverse the report notion, and start with the plan. In which case, the report will probably be unnecessary. If you start with a plan that says this is what we intend to do, this is by which we intend to do it, you give that to people who want to know what you've been doing. I think that is far more informative than doing a report after the fact. Because we don't have anything to measure that by. Is that good or is that bad? Is that what you intended to do, or not?

Thank you, Mr. Chairman.

Mr. DAVIS of Virginia. I just have a couple of questions. Have the public school systems been an active participant in the planning and implementation strategies?

Ms. PECK. Yes.

Mr. DAVIS of Virginia. Finally, in the reauthorization of the Federal transportation bill, the Congress appropriated approximately $7 million for the Washington Geographic Information System, the WGIS program. We believe this is a critical program that will dramatically assist the District of Columbia in areas, such as land use planning and 911 emergency response.

What is the status of this WGIS program? What are you doing to ensure that it's Y2K compliant, and are there any impediments to moving forward with the WGIS program immediately? And if so, what are they, and what are we doing to address these obstacles?

Ms. PECK. I believe GIS is extraordinarily important for the city as well, and we are taking those funds with National Capitol Planning we've formed a consortium and are basically going to build something called planimetric maps for this region. Those maps will allow the identification of many, many different elements of topology that can be linked to government services, so that we will know, for example, where all the streets are, where all the alleys are, where all fire hydrants are, we will know where to locate child services.

Mr. DAVIS of Virginia. I know what it's going to do. But is this being delayed or is this being implemented immediately? My un-

derstanding is that, now that we have it we may go way out and re-bid it again, and that that would delay the implementation.

Ms. PECK. No, no. Absolutely, there will be a re-bid. There will be a re-bid because, since the first bid, just like prices of computers, the prices of those planimetric mapping services have come way, way down, and the original bid is absurd now. And so, we're going to——

Mr. DAVIS of Virginia. What's the delay going to be in doing that, because it's been delayed here on funding.

Ms. PECK. It's going to be short. There's going to be a bid process. We will be well advantaged, both financially and in terms of the work to be done, to have that re-bid done. I am breathless to have the bid redone. I am breathless for the work to be done.

Mr. DAVIS of Virginia. Well, we would rather see it in finality. It took 2 years to get the thing funded up here. Just to tell you what's happened with it. We couldn't get it funded. We had hold ups at this level of appropriations and everything else, and there were all kinds of problems. So, we're really eager to get this thing moving.

Ms. PECK. I'm with you.

Mr. DAVIS of Virginia. All right, I want to thank all of you. Without objection, all written statements submitted by witnesses will be made part of the permanent record. The record will remain open for 10 days. The subcommittee will continue consideration of this matter, and may ask for further written responses from the witnesses.

These proceedings are closed. Thank you.

[Whereupon, at 3:28 p.m., the subcommittees adjourned subject to the call of the Chairs.]

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