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YEAR 2000 COMPUTING CHALLENGE

Readiness Improving, But Critical Risks Remain

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Mr. Chairman and Members of the Committee:

I am pleased to appear today to discuss progress being made in addressing the Year 2000 computing challenge and to outline actions needed to ensure a smooth conversion to the next century. While our country is considered among the leaders in addressing this issue, the fact remains that both public and private organizations still face a daunting task in providing reasonable assurance that it will truly be business as usual beginning on January 1, 2000, and continuing throughout this pivotal transition year.

The federal government—with its widespread dependence on large-scale, complex computer systems to deliver vital public services and carry out its massive operations—faces an especially enormous and difficult task. Unless adequately confronted, Year 2000—or Y2K—computing problems could lead to serious disruptions in key federal operations, ranging from national defense to benefits payments to air traffic management.

Consequently, in February 1997, GAO designated the Year 2000 computing problem as a high-risk area. Our purpose was to stimulate greater attention to assessing the government's exposure to Year 2000 risks and to strengthen planning for achieving Year 2000 compliance for mission-critical systems. Fortunately, the past 2 years have witnessed marked improvement in preparedness as the government has revised and intensified its approach to this problem.

Significant challenges, however, remain—and time is running out. In particular, complete and thorough Year 2000 testing is essential to providing reasonable assurance that new or modified systems will be able to process dates correctly and not jeopardize agencies' ability to perform core business operations. Moreover, adequate business continuity and contingency plans must be successfully completed throughout government.

The scope of the Year 2000 problem extends well beyond federal operations; it spans the entire spectrum of our national as well as global economy. Accordingly, in concert with our recommendations, the President's Council on Year 2000 Conversion has been reaching out to the private sector, state and local governments, and to other countries to increase awareness. Working with these entities, the Council also has begun to assess the readiness of various sectors, including power, water, telecommunications, health care, and emergency services.

At this juncture, however, a comprehensive picture of the nation's readiness is lacking. A great deal more needs to be done—both domestically and internationally—to effectively determine readiness and prepare necessary contingency plans. Such actions are imperative to ensure that technology-dependent services continue to operate reliably after the turn of the century, with minimal disruption.

The Federal Government Has Enhanced Its Approach

Since February 1997, action to address the Year 2000 threat has intensified. In response to a growing recognition of the challenge and urging from congressional leaders and others, the administration strengthened the government's Year 2000 preparation and expanded its outlook beyond federal agencies. In February 1998, the President took a major step in establishing the President's Council on Year 2000 Conversion. He established the goal that no system critical to the federal government's mission experience disruption because of the Year 2000 problem, and charged agency heads with ensuring that this issue receives the highest priority attention.

Further, the President tasked the Chair of the Council with

- being chief spokesperson on Year 2000 issues in national and international forums;
- overseeing Year 2000 activities of federal agencies;
- providing Year 2000 policy coordination of executive branch activities with state, local, and tribal governments; and
- promoting appropriate federal roles with respect to private-sector activities.

Among the initiatives the Chair has implemented in carrying out these responsibilities are attending monthly meetings with senior managers of agencies that are not making sufficient progress, establishing numerous working groups to increase awareness of and gain cooperation in addressing the Year 2000 problem in various economic sectors, and emphasizing the importance of federal/state data exchanges.

OMB, for its part, has tightened requirements on agency reporting of Year 2000 progress. It now requires that beyond the original 24 major departments and agencies that have been reporting, 9 additional agencies (such as the Tennessee Valley Authority and the Postal Service) report quarterly on their Year 2000 progress, and that additional information be reported from all agencies. OMB has also clarified instructions for

agencies relative to preparing business continuity and contingency plans. Further, OMB places each of the 24 major agencies into one of three tiers after receiving its quarterly progress report, determined by OMB's judgment of whether evidence of the agency's reported progress is sufficient.

Several agencies have reported substantial progress in repairing or replacing systems to be Year 2000 compliant. For example, in October 1997 we had reported that the Social Security Administration (SSA) had made significant progress in assessing and renovating mission-critical mainframe software, although certain areas of risk remained.[1] Accordingly, we made several recommendations to address these risks, including the development of business continuity and contingency plans. SSA agreed; in July 1998, we reported that actions to implement these recommendations had either been taken or were underway.[2]

As federal agencies have more fully realized the complexities and extent of necessary Year 2000 activities, their costs have correspondingly risen. As figure 1 illustrates, the government's 24 major departments and agencies' Year 2000 cost estimates more than tripled from February 1997 through November 1998.

There are too many uncertainties to determine whether this cost escalation trend has ended. One of the most essential ongoing tasks, testing, could consume additional resources; experience is showing that testing is taking between 50 and 70 percent of a project's time and resources. In addition, agencies may find that the planning and possible implementation of business continuity and contingency plans could increase costs. As a result of these factors, the Congress needs to continue to keep apprised of agencies' Year 2000 efforts and their associated costs.

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[1]Social Security Administration: Significant Progress Made in Year 2000 Effort, But Key Risks Remain (GAO/AIMD-98-6, October 22, 1997).

[2]Social Security Administration: Subcommittee Questions Concerning Information Technology Challenges Facing the Commissioner (GAO/AIMD-98-235R, July 10, 1998).

Figure 1: Federal Government's Estimated Year 2000 Costs (Dollars in Billions)

Billion

Feb-97	$2.5
May-97	$2.7
Aug-97	$3.8
Nov-97	$3.9
Feb-98	$4.7
May-98	$5.0
Aug-98	$6.3
Nov-98	$7.2
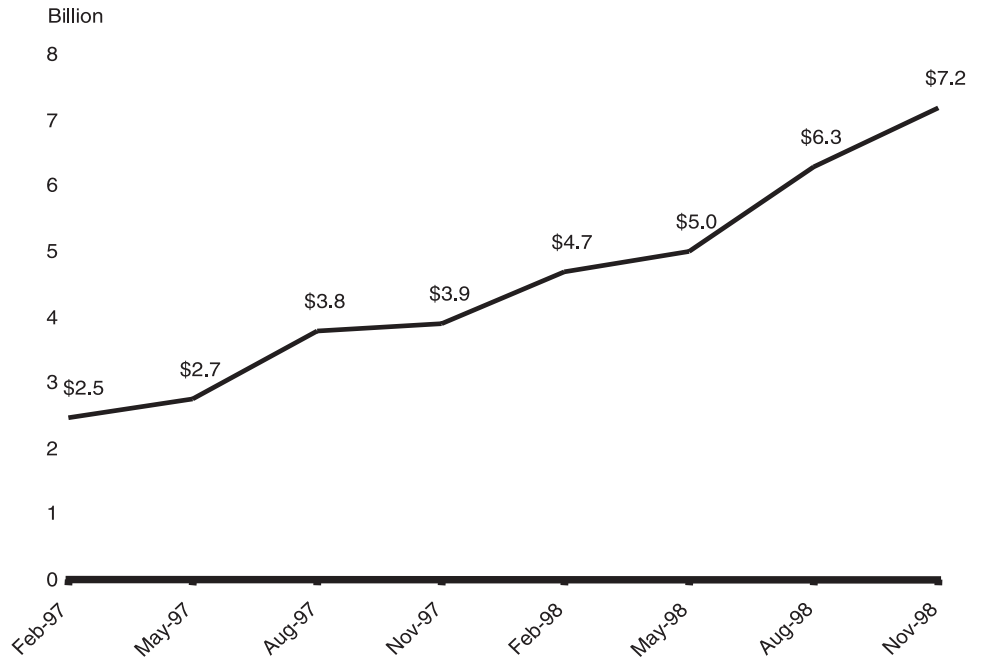
Note: The August 1998 figure of $6.3 billion and the November 1998 figure of $7.2 billion are the totals of all individual submissions from the 24 major departments and agencies that were generally submitted on August 14th and November 13th, respectively. In its summaries of the agency reports, OMB reported the government's total estimated Year 2000 costs as $5.4 billion and $6.4 billion, respectively. For the August 1998 costs, OMB did not include all costs in its estimate because, for example, it was still reviewing some of the estimates provided by the agencies. For the November 1998 costs, OMB did not provide explanations in its report for the discrepancies between the agency reports and its estimates for 15 of the 18 agencies with differences.

Source: February 1997 data are from OMB's report Getting Federal Computers Ready for 2000, February 6, 1997. May 1997 through May 1998 data are from OMB's quarterly reports. The August and November 1998 data are from the quarterly reports of the 24 major federal departments and agencies.

Many congressional committees have played a central role in addressing the Year 2000 challenge by holding agencies accountable for demonstrating progress and by heightening public appreciation of the problem. As you know, the Senate formed a Special Committee on the Year 2000 Technology Problem, under the chairmanship of Senator Bennett, which held hearings on the readiness of key economic sectors, including power, health care, telecommunications, transportation, financial services, emergency services, and general business. The House called on the Subcommittee on Government Management, Information and Technology of the Committee on Government Reform and the Subcommittee on Technology of the

Committee on Science to co-chair the House's Year 2000 monitoring.[3] These committees and others have held many hearings to obtain information on the Year 2000 readiness of federal agencies, states, localities, and other important nonfederal entities, such as the securities industry.

The Congress also passed important Year 2000 legislation. In October 1998, it passed—and the President signed—the Year 2000 Information and Readiness Disclosure Act. Its purposes include (1) promoting the free disclosure and exchange of information related to Year 2000 readiness and (2) lessening the burdens on interstate commerce by establishing certain uniform legal principles in connection with the disclosure and exchange of information related to Year 2000 readiness. In addition, the Congress passed (and the President signed) the Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999, which included $3.35 billion in contingent emergency funding for Year 2000 conversion activities.

GAO's Efforts to Help Meet the Challenge

As you know, GAO has been very active in working with the Congress as well as federal agencies to both strengthen agency processes and to evaluate their progress in addressing these challenges. To help agencies mitigate their Year 2000 risks, we produced a series of Year 2000 guides. The first of these, on enterprise readiness, provides a systematic, step-by-step approach for agency planning and management of its Year 2000 program.[4] The second, on business continuity and contingency planning, provides a structured approach to helping agencies ensure minimum levels of service through proper planning.[5] Our third guide sets forth a disciplined approach to Year 2000 testing.[6] Federal agencies and other organizations have used these guides widely to help organize and manage their Year 2000 programs.

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[3]We will also be testifying today before the House Government Reform and Science Committees on actions needed to address the Year 2000 computing issue.

[4]Year 2000 Computing Crisis: An Assessment Guide (GAO/AIMD-10.1.14, issued as an exposure draft in February 1997 and in final form in September 1997).

[5]Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD-10.1.19, issued as an exposure draft in March 1998 and in final form in August 1998).

[6]Year 2000 Computing Crisis: A Testing Guide (GAO/AIMD-10.1.21, issued as an exposure draft in June 1998 and in final form in November 1998).

In addition, we have issued over 70 reports and testimony statements detailing specific findings and made over 100 recommendations related to the Year 2000 readiness of the government as a whole and of a wide range of individual agencies.[7] These recommendations have been almost universally embraced.

Our recommendations have centered on the following.

- **Project planning.** We have recommended better organizational planning and management oversight—including systems inventorying and analysis—in a number of programs and entities.
- **Priority-setting.** With over 2,600 mission-critical systems still needing to be made Year 2000 compliant, it is important to establish priorities. Resources need to be focused on those business processes and supporting systems that could threaten national security, the economy, the health and safety of Americans, or their financial well-being.
- **Data exchanges.** To remediate their data exchanges, agencies must (1) identify those that are not Year 2000 compliant, (2) reach agreement with exchange partners (such as states) on the date format to be used, (3) determine if data bridges and filters are needed and, if so, reach agreement on their development, (4) develop and test such bridges and filters, and (5) test and implement new exchange formats.
- **Testing.** Agencies should perform thorough testing of their systems, including end-to-end testing of multiple systems supporting a major business function.
- **Business continuity and contingency planning.** Given the interdependencies among agencies, their business partners, and the public infrastructure, it is imperative that contingency plans be developed for all critical core business processes and supporting systems, regardless of whether these systems are owned by the agency.

In addition to our work at federal agencies, we have promoted Year 2000 awareness and solutions—both in the United States and abroad—by publishing our guides and reports and making them available on our World Wide Web site. I also discussed the Year 2000 issue with the leadership of audit organizations from around the world at a recent international conference. I subsequently wrote to these leaders to draw greater attention to this issue, and to share with them our recent publications.

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[7]A list of reports and testimony on the Year 2000 problem is attached to this statement. It can also be found on the Internet at GAO's World Wide Web site at *www.gao.gov/y2kr.htm.*

Serious Risks Remain

While much has been accomplished and real progress has been made in addressing the Year 2000 problem, both risks and challenges remain. Our reviews of federal Year 2000 programs have found uneven progress; some major agencies are significantly behind schedule and are at high risk that they will not correct all of their mission-critical systems in time. As the time remaining diminishes, it becomes increasingly difficult to ensure that all mission-critical systems will be compliant in time.

Figure 2 shows OMB's assessment of agencies' Year 2000 progress on the basis of their November 1998 quarterly reports.

Figure 2: OMB's Assessment of Agencies' Year 2000 Progress (November 1998)

TIER 1:   <u>Agencies Demonstrating Insufficient Evidence of Progress</u>

- *Defense*
- *Energy*
- *HHS*
- *State*
- *Transportation*
- *AID*

TIER 2:   <u>Agencies Showing Evidence of Progress But About Which OMB Has Concerns</u>

- *Agriculture*
- *Commerce*
- *Education*
- *Justice*
- *Labor*
- *Treasury*
- *OPM*

TIER 3:   <u>Agencies Making Satisfactory Progress</u>

- *HUD*
- *Interior*
- *VA*
- *EPA*
- *FEMA*
- *GSA*
- *NASA*
- *NSF*
- *NRC*
- *SBA*
- *SSA*

We have made detailed recommendations to agencies responsible for some of the government's most essential services. For example:

- The Department of Defense (DOD) and the military services face the threat of significant problems.[8] In April 1998 we reported that the department lacked complete and reliable information on systems, interfaces, other equipment needing repair, and the cost of its correction efforts.[9] We found that these and other problems seriously threatened the department's chances of successfully meeting the Year 2000 deadline for its mission-critical systems. Further, taken together, the problems in Defense's Year 2000 program made failure of at least some mission-critical systems and the operations they support almost certain unless corrective actions were taken. We have recommended numerous improvements for critical matters such as data exchanges, testing, and contingency planning; DOD concurred with these recommendations and agreed to implement them.
- We reported[10] that although the Health Care Financing Administration (HCFA) had made improvements in its Year 2000 management, the agency and its contractors were severely behind schedule in repairing, testing, and implementing the mission-critical systems supporting Medicare. Given the magnitude of the task and the risks and limited time remaining, in September 1998, we concluded that it was highly unlikely that all Medicare systems would be compliant in time to ensure uninterrupted delivery of benefits and services. To improve the prospects for success, we recommended that HCFA (1) rank its remaining Year 2000 work on the basis of an integrated project schedule, (2) ensure that all critical tasks are prioritized and completed in time to prevent unnecessary delays, (3) define the scope of an end-to-end test of the claims process and develop plans and a schedule for conducting such a test, (4) develop a risk management process, and (5) accelerate the development of business continuity and contingency plans. HCFA has agreed to implement these recommendations.

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[8]Defense Computers: Year 2000 Computer Problems Put Navy Operations At Risk (GAO/AIMD-98-150, June 30, 1998), Defense Computers: Army Needs to Greatly Strengthen Its Year 2000 Program (GAO/AIMD-98-53, May 29, 1998), Defense Computers: Year 2000 Computer Problems Threaten DOD Operations (GAO/AIMD-98-72, April 30, 1998), and Defense Computers: Air Force Needs to Strengthen Year 2000 Oversight (GAO/AIMD-98-35, January 16, 1998).

[9]GAO/AIMD-98-72, April 30, 1998.

[10]Medicare Computer Systems: Year 2000 Challenges Put Benefits and Services in Jeopardy (GAO/AIMD-98-284, September 28, 1998).

- As we reported in August 1998,[11] the Federal Aviation Administration (FAA) had made progress in managing its Year 2000 problem and had completed critical steps in defining which systems needed to be corrected and how to accomplish this. The agency had acted upon several of our recommendations from earlier in the year, including making final a Year 2000 strategy and setting priorities.[12] However, with less than 17 months to go, FAA still had to correct, test, and implement many of its mission-critical systems. Accordingly, FAA must determine how to ensure continuity of critical operations in the event that some systems fail.

Such examples underscore the difficulties confronting agencies in making up for lost time; Year 2000 testing alone is consuming between 50 and 70 percent of a project's time and resources. Thorough testing is essential to providing reasonable assurance that new or modified systems can process dates correctly and will not jeopardize an organization's ability to perform core business functions after the change of century.

Even for agencies that are making good progress, other critical issues must be successfully resolved; these include data exchanges, telecommunications, and embedded systems.[13] First, should the government's hundreds of thousands of data exchanges not be Year 2000 compliant, data either will not be successfully exchanged or invalid data could cause the receiving computer systems to malfunction or produce inaccurate computations. Second, the government depends heavily on the telecommunications infrastructure; reliable services are made possible by a complex web of highly interconnected networks supported by national and local carriers and service providers, equipment manufacturers and suppliers, and customers. Third, the century change could cause problems for the many embedded computer systems used to control, monitor, or assist in operations.

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[11]FAA Systems: Serious Challenges Remain in Resolving Year 2000 and Computer Security Problems (GAO/T-AIMD-98-251, August 6, 1998).

[12]FAA Computer Systems: Limited Progress on Year 2000 Issue Increases Risk Dramatically (GAO/AIMD-98-45, January 30, 1998) and Year 2000 Computing Crisis: FAA Must Act Quickly to Prevent Systems Failures (GAO/T-AIMD-98-63, February 4, 1998).

[13]Embedded systems are special-purpose computers built into other devices. Examples include systems in elevators, heating and air conditioning units, and biomedical devices, such as cardiac defibrillators, and cardiac monitoring systems, which can record, process, analyze, display, and/or transmit medical data. (See Year 2000 Computing Crisis: Compliance Status of Many Biomedical Equipment Items Still Unknown (GAO/AIMD-98-240, September 18, 1998).)

If issues such as these are not adequately addressed, the impact of Year 2000 failures could disrupt vital government operations. Moreover, federal agencies depend on data provided by their business partners, as well as on services provided by the public infrastructure (power, water, transportation, and voice and data telecommunications). One weak link anywhere in the chain of critical dependencies can cause a cascading effect of major shutdowns of business operations. Consequently, it is imperative that contingency plans be developed for all critical core business processes and supporting systems, regardless of whether these systems are owned by the agency. Without such plans, when unpredicted failures occur, agencies will lack well-defined responses, and may not have enough time to develop and test alternatives.

The Nation as a Whole Faces Significant Year 2000 Challenges

Our nation's reliance on the complex array of public and private enterprises having scores of system interdependencies at all levels accentuates the potential repercussions a single failure could cause. It is essential that Year 2000 issues be adequately addressed in arenas beyond the federal government: state and local governments, the public infrastructure, and other key economic sectors.

State and local governments are responsible for the implementation of many national programs—such as food stamps and Medicaid—while also providing vital local and regional services. Accordingly, Year 2000-induced failures could result in payment delays felt at the local level, or in the interruption of key public services such as law enforcement, traffic management, and emergency and health services. For example, our survey of the state systems used in federal welfare programs revealed that the majority of them were not yet Year 2000 compliant.[14] Failure to complete Year 2000 conversion could result in billions of dollars in benefits payments not being delivered. In an attempt to prevent this for Medicaid systems, HCFA recently hired a contractor to independently verify and validate state systems.

The public infrastructure, including critical areas such as power, water, and telecommunications, is particularly important because most, if not all,

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[14]Year 2000 Computing Crisis: Readiness of State Automated Systems to Support Federal Welfare Programs (GAO/AIMD-99-28, November 6, 1998). The survey was conducted in July and August 1998 and included the following welfare programs: Medicaid; Temporary Assistance for Needy Families; Women, Infants, and Children; food stamps; child support enforcement; child care; and child welfare. Forty-nine states, the District of Columbia, and three territories responded to our survey.

major enterprises rely on these essential elements for daily functioning. Other key economic sectors include health, safety, and emergency services; banking and finance; transportation; and manufacturing and small business.

These sectors are critical, yet the nation has not had a complete picture of their readiness. Accordingly, in our April 1998 report,[15] we recommended that the President's Council on Year 2000 Conversion develop such a comprehensive picture, to include identifying and assessing risks to the nation's key economic sectors—including risks posed by international links. We also recommended that the Council use a sector-based approach and establish the effective public-private partnerships necessary to address this issue.

The Council adopted a sector-based focus and has been initiating outreach activities since it became operational last spring. More recently, in October 1998, the Chair directed the Council's sector working groups to begin assessing their sectors. The Chair, in turn, plans to issue periodic public reports summarizing these assessments. The assessments will be used to help prepare contingency plans and aid in crisis management, in which the Council will respond to disruptions that may arise in critical services. The first such report, issued on January 7, 1999, summarizes information collected to date by the working groups and various trade associations.[16] The Council acknowledged that readiness data in certain industries were not yet available and, therefore, were not included in the report.

The Council's report is a good step toward obtaining a picture of the nation's Year 2000 readiness. However, the Council must remain vigilant and closely monitor and update the information in the sectors where information is available and obtain information for those where it is not. Particular attention should be paid to the public infrastructure, including critical areas such as power, water, and telecommunications, since most, if not all, major enterprises rely on these essential elements for daily functioning. Other key economic sectors include health, safety, and emergency services; banking and finance; transportation; and manufacturing and small business. In addition, with the advent of

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[15]Year 2000 Computing Crisis: Potential for Widespread Disruption Calls for Strong Leadership and Partnerships (GAO/AIMD-98-85, April 30, 1998).

[16]First Quarterly Summary of Assessment Information (The President's Council on Year 2000 Conversion, January 7, 1999).

electronic communication and international commerce, the United States is also critically dependent on international Year 2000 readiness. Completing these activities is absolutely vital to adequately understanding the full range of national and international risks.

International concerns are underscored by a September 1998 report by the Organization for Economic Co-operation and Development.[17] This report stated that (1) while awareness is increasing, the amount of remediation still required is daunting, (2) significant negative economic impact is likely in the short term, although much uncertainty exists about the extent of Year 2000-induced disruptions, (3) governments face a major public management challenge requiring acceleration of their own preparations and stronger leadership, and (4) stronger international cooperation is essential, especially in conjunction with cross-border testing.

In addition to addressing domestic Year 2000 issues, the United States has attempted to promote international dialogue on the problem. In June 1998, the United Nations General Assembly adopted a resolution on the global implications of the Year 2000 issue. The resolution recognized that effective operation of governments, companies, and other organizations was threatened by the century change, and coordinated efforts were required to address it. The resolution went on to request that all member countries attach a high priority to raising the level of awareness and to consider appointing a nationwide coordinator to tackle the problem.

The Chair of the President's Council also has met with the United Nations and other international bodies, and helped organize a December 1998 National Y2K Coordinators' meeting attended by over 120 countries, hosted by the United Nations' Working Group on Informatics. This meeting should help encourage the establishment of regional coordinating mechanisms and foster greater international dialogue on the Year 2000 issue.

In conclusion, considerable progress has been made in addressing the Year 2000 challenge. It is clear that federal agencies have now made the Year 2000 a top priority. It is equally clear, however, that much more needs to be

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[17]The Organization for Economic Co-operation and Development surveyed its member countries and reviewed existing studies and media reports on the Year 2000 problem and issued a report on its findings, The Year 2000 Problem: Impacts and Actions (September 1998). The organization's 29 member countries are Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

done. It is critical that agency priorities continue to be set, rigorous testing be completed, and thorough business continuity and contingency plans be prepared. Further, aggressive and sustained action must continue in assessing and mitigating national and international risks in both the public infrastructure and key economic sectors.

Such efforts require federal leadership, effective public-private partnerships, and international cooperation. Congressional leadership and oversight of the Year 2000 issue have been instrumental in raising awareness and spurring needed action; such continued leadership on the part of the Congress will be crucial. For our part, we will continue to support the Congress' oversight efforts by evaluating the effectiveness of the federal government's Year 2000 actions and advancing constructive suggestions for mitigating the risk of serious Year 2000 disruption.

Mr. Chairman, this concludes my statement. I will be pleased to respond to any questions that you or other members of the Committee may have at this time.

GAO Reports and Testimony Addressing the Year 2000 Problem

Status Information: FAA's Year 2000 Business Continuity and Contingency Planning Efforts Are Ongoing (GAO/AIMD-99-40R, December 4, 1998).

Year 2000 Computing Crisis: A Testing Guide (GAO/AIMD-10.1.21, November 1998).

Year 2000 Computing Crisis: Readiness of State Automated Systems to Support Federal Welfare Programs (GAO/AIMD-99-28, November 6, 1998).

Year 2000 Computing Crisis: Status of Efforts to Deal With Personnel Issues (GAO/AIMD/GGD-99-14, October 22, 1998).

Year 2000 Computing Crisis: Updated Status of Department of Education's Information Systems (GAO/T-AIMD-99-8, October 8, 1998).

Year 2000 Computing Crisis: The District of Columbia Faces Tremendous Challenges in Ensuring That Vital Services Are Not Disrupted (GAO/T-AIMD-99-4, October 2, 1998).

Medicare Computer Systems: Year 2000 Challenges Put Benefits and Services in Jeopardy (GAO/AIMD-98-284, September 28, 1998).

Year 2000 Computing Crisis: Leadership Needed to Collect and Disseminate Critical Biomedical Equipment Information (GAO/T-AIMD-98-310, September 24, 1998).

Year 2000 Computing Crisis: Compliance Status of Many Biomedical Equipment Items Still Unknown (GAO/AIMD-98-240, September 18, 1998).

Year 2000 Computing Crisis: Significant Risks Remain to Department of Education's Student Financial Aid Systems (GAO/T-AIMD-98-302, September 17, 1998).

Year 2000 Computing Crisis: Progress Made at Department of Labor, But Key Systems at Risk (GAO/T-AIMD-98-303, September 17, 1998).

Year 2000 Computing Crisis: Federal Depository Institution Regulators Are Making Progress, But Challenges Remain (GAO/T-AIMD-98-305, September 17, 1998).

Year 2000 Computing Crisis: Federal Reserve Is Acting to Ensure Financial Institutions Are Fixing Systems But Challenges Remain (GAO/AIMD-98-248, September 17, 1998).

Responses to Questions on FAA's Computer Security and Year 2000 Program (GAO/AIMD-98-301R, September 14, 1998).

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

Year 2000 Computing Crisis: Strong Leadership and Effective Partnerships Needed to Reduce Likelihood of Adverse Impact (GAO/T-AIMD-98-277, September 2, 1998).

Year 2000 Computing Crisis: Strong Leadership and Effective Partnerships Needed to Mitigate Risks (GAO/T-AIMD-98-276, September 1, 1998).

Year 2000 Computing Crisis: State Department Needs To Make Fundamental Improvements To Its Year 2000 Program (GAO/AIMD-98-162, August 28, 1998).

Year 2000 Computing: EFT 99 Is Not Expected to Affect Year 2000 Remediation Efforts (GAO/AIMD-98-272R, August 28, 1998).

Year 2000 Computing Crisis: Progress Made in Compliance of VA Systems, But Concerns Remain (GAO/AIMD-98-237, August 21, 1998).

Year 2000 Computing Crisis: Avoiding Major Disruptions Will Require Strong Leadership and Effective Partnerships (GAO/T-AIMD-98-267, August 19, 1998).

Year 2000 Computing Crisis: Strong Leadership and Partnerships Needed to Address Risk of Major Disruptions (GAO/T-AIMD-98-266, August 17, 1998).

Year 2000 Computing Crisis: Strong Leadership and Partnerships Needed to Mitigate Risk of Major Disruptions (GAO/T-AIMD-98-262, August 13, 1998).

FAA Systems: Serious Challenges Remain in Resolving Year 2000 and Computer Security Problems (GAO/T-AIMD-98-251, August 6, 1998).

Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD-10.1.19, August 1998).

Internal Revenue Service: Impact of the IRS Restructuring and Reform Act on Year 2000 Efforts (GAO/GGD-98-158R, August 4, 1998).

Social Security Administration: Subcommittee Questions Concerning Information Technology Challenges Facing the Commissioner (GAO/AIMD-98-235R, July 10, 1998).

Year 2000 Computing Crisis: Actions Needed on Electronic Data Exchanges (GAO/AIMD-98-124, July 1, 1998).

Defense Computers: Year 2000 Computer Problems Put Navy Operations at Risk (GAO/AIMD-98-150, June 30, 1998).

Year 2000 Computing Crisis: Testing and Other Challenges Confronting Federal Agencies (GAO/T-AIMD-98-218, June 22, 1998).

Year 2000 Computing Crisis: Telecommunications Readiness Critical, Yet Overall Status Largely Unknown (GAO/T-AIMD-98-212, June 16, 1998).

GAO Views on Year 2000 Testing Metrics (GAO/AIMD-98-217R, June 16, 1998).

IRS' Year 2000 Efforts: Business Continuity Planning Needed for Potential Year 2000 System Failures (GAO/GGD-98-138, June 15, 1998).

Year 2000 Computing Crisis: Actions Must Be Taken Now to Address Slow Pace of Federal Progress (GAO/T-AIMD-98-205, June 10, 1998).

Defense Computers: Army Needs to Greatly Strengthen Its Year 2000 Program (GAO/AIMD-98-53, May 29, 1998).

Year 2000 Computing Crisis: USDA Faces Tremendous Challenges in Ensuring That Vital Public Services Are Not Disrupted (GAO/T-AIMD-98-167, May 14, 1998).

Securities Pricing: Actions Needed for Conversion to Decimals (GAO/T-GGD-98-121, May 8, 1998).

Year 2000 Computing Crisis: Continuing Risks of Disruption to Social Security, Medicare, and Treasury Programs (GAO/T-AIMD-98-161, May 7, 1998).

IRS' Year 2000 Efforts: Status and Risks (GAO/T-GGD-98-123, May 7, 1998).

Air Traffic Control: FAA Plans to Replace Its Host Computer System Because Future Availability Cannot Be Assured (GAO/AIMD-98-138R, May 1, 1998).

Year 2000 Computing Crisis: Potential for Widespread Disruption Calls for Strong Leadership and Partnerships (GAO/AIMD-98-85, April 30, 1998).

Defense Computers: Year 2000 Computer Problems Threaten DOD Operations (GAO/AIMD-98-72, April 30, 1998).

Department of the Interior: Year 2000 Computing Crisis Presents Risk of Disruption to Key Operations (GAO/T-AIMD-98-149, April 22, 1998).

Tax Administration: IRS' Fiscal Year 1999 Budget Request and Fiscal Year 1998 Filing Season (GAO/T-GGD/AIMD-98-114, March 31, 1998).

Year 2000 Computing Crisis: Strong Leadership Needed to Avoid Disruption of Essential Services (GAO/T-AIMD-98-117, March 24, 1998).

Year 2000 Computing Crisis: Federal Regulatory Efforts to Ensure Financial Institution Systems Are Year 2000 Compliant (GAO/ T-AIMD-98-116, March 24, 1998).

Year 2000 Computing Crisis: Office of Thrift Supervision's Efforts to Ensure Thrift Systems Are Year 2000 Compliant (GAO/T-AIMD-98-102, March 18, 1998).

Year 2000 Computing Crisis: Strong Leadership and Effective Public/ Private Cooperation Needed to Avoid Major Disruptions (GAO/ T-AIMD-98-101, March 18, 1998).

Post-Hearing Questions on the Federal Deposit Insurance Corporation's Year 2000 (Y2K) Preparedness (AIMD-98-108R, March 18, 1998).

SEC Year 2000 Report: Future Reports Could Provide More Detailed Information (GAO/GGD/AIMD-98-51, March 6, 1998).

<u>Year 2000 Readiness: NRC's Proposed Approach Regarding Nuclear Powerplants</u> (GAO/AIMD-98-90R, March 6, 1998).

<u>Year 2000 Computing Crisis: Federal Deposit Insurance Corporation's Efforts to Ensure Bank Systems Are Year 2000 Compliant</u> (GAO/T-AIMD-98-73, February 10, 1998).

<u>Year 2000 Computing Crisis: FAA Must Act Quickly to Prevent Systems Failures</u> (GAO/T-AIMD-98-63, February 4, 1998).

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