

Testimony

Before the Committee on Government Reform, House of Representatives

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YEAR 2000 COMPUTING CRISIS

Readiness Improving But Much Work Remains to Ensure Delivery of Critical Services

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Mr. Chairman and Members of the Committee:

Thank you for inviting us to participate in today's hearing on the Year 2000 problem. According to the report of the President's Commission on Critical Infrastructure Protection, the United States—with close to half of all computer capacity and 60 percent of Internet assets—is the world's most advanced and most dependent user of information technology. Should these systems—which perform functions and services critical to our nation—suffer problems, it could create widespread disruption. Accordingly, the upcoming change of century is a sweeping and urgent challenge for public- and private-sector organizations alike.

Because of its urgent nature and the potentially devastating impact it could have on critical government operations, in February 1997, we designated the Year 2000 problem as a high-risk area for the federal government. ² Since that time, we have issued over 90 reports and testimony statements detailing specific findings and numerous recommendations related to the Year 2000 readiness of a wide range of federal agencies. ³ We have also issued guidance to help organizations successfully address the issue. ⁴

Today, I will highlight the Year 2000 risks facing the nation, discuss the federal government's progress and remaining challenges in correcting its systems, identify state and local government Year 2000 issues, and provide an overview of the available information on the readiness of key public infrastructure and economic sectors.

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¹Critical Foundations: Protecting America's Infrastructures (President's Commission on Critical Infrastructure Protection, October 1997).

 $^{{}^2\}underline{\text{High-Risk Series: Information Management and Technology}} \ (\text{GAO/HR-97-9}, \text{February 1997}).$

³A list of these publications is included in appendix II of this statement.

⁴Year 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), which addresses the key tasks needed to complete each phase of a Year 2000 program (awareness, assessment, renovation, validation, and implementation); 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), which describes the tasks needed to ensure the continuity of agency operations; and 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), which discusses the need to plan and conduct Year 2000 tests in a structured and disciplined fashion.

The Public Faces Risks of Year 2000 Disruptions

The public faces a risk that critical services provided by the government and the private sector could be severely disrupted by the Year 2000 computing problem. Financial transactions could be delayed, flights grounded, power lost, and national defense affected. Moreover, America's infrastructures are a complex array of public and private enterprises with many interdependencies at all levels. These many interdependencies among governments and within key economic sectors could cause a single failure to have adverse repercussions in other sectors. Key sectors that could be seriously affected if their systems are not Year 2000 compliant include information and telecommunications; banking and finance; health, safety, and emergency services; transportation; power and water; and manufacturing and small business.

The following are examples of some of the major disruptions the public and private sectors could experience if the Year 2000 problem is not corrected.

- With respect to aviation, there could be grounded or delayed flights, degraded safety, customer inconvenience, and increased airline costs.
- Aircraft and other military equipment could be grounded because the computer systems used to schedule maintenance and track supplies may not work. Further, the Department of Defense could incur shortages of vital items needed to sustain military operations and readiness.⁶
- Medical devices and scientific laboratory equipment may experience problems beginning January 1, 2000, if their software applications or embedded chips use two-digit fields to represent the year.

Recognizing the seriousness of the Year 2000 problem, on February 4, 1998, the President signed an executive order that established the President's Council on Year 2000 Conversion led by an Assistant to the President and consisting of one representative from each of the executive departments and from other federal agencies as may be determined by the Chair. The Chair of the Council was tasked with the following Year 2000 roles: (1) overseeing the activities of agencies, (2) acting as chief spokesperson in national and international forums, (3) providing policy coordination of

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⁵FAA Systems: Serious Challenges Remain in Resolving Year 2000 and Computer Security Problems (GAO/T-AIMD-98-251, August 6, 1998).

 $^{^6\}underline{\text{Defense Computers: Year 2000 Computer Problems Threaten DOD Operations}}$ (GAO/AIMD-98-72, April 30, 1998).

executive branch activities with state, local, and tribal governments, and (4) promoting appropriate federal roles with respect to private-sector activities.

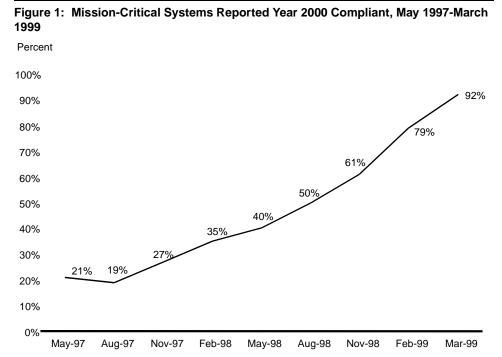
Improvements Made But Much Work Remains

Addressing the Year 2000 problem is a tremendous challenge for the federal government. Many of the federal government's computer systems were originally designed and developed 20 to 25 years ago, are poorly documented, and use a wide variety of computer languages, many of which are obsolete. Some applications include thousands, tens of thousands, or even millions of lines of code, each of which must be examined for dateformat problems.

To meet this challenge and monitor individual agency efforts, the Office of Management and Budget (OMB) directed the major departments and agencies to submit quarterly reports on their progress, beginning May 15, 1997. These reports contain information on where agencies stand with respect to the assessment, renovation, validation, and implementation of mission-critical systems, as well as other management information on items such as business continuity and contingency plans and costs.

The federal government's most recent reports show improvement in addressing the Year 2000 problem. While much work remains, the federal government has significantly increased the percentage of mission-critical systems that are reported to be Year 2000 compliant, as figure 1 illustrates. In particular, while the federal government did not meet its goal of having all mission-critical systems compliant by March 1999, 92 percent of these systems were reported to have met this goal.

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Source: May 1997 through February 1999 data are from the OMB quarterly reports. The March 1999 data are from the President's Council on Year 2000 Conversion and OMB.

While this progress is notable, 11 agencies did not meet OMB's deadline for all of their mission-critical systems. ⁷ In addition, as we testified last week, some of the systems that were not yet compliant support vital government functions. ⁸ For example, among the systems that did not meet the March 1999 deadline were those operated by Health Care Financing Administration (HCFA) contractors. As we testified in February 1999, these systems are critical to processing Medicare claims. ⁹

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 $^{^7}$ The 11 agencies were the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Justice, State, Transportation, and the Treasury and the National Aeronautics and Space Administration and the U.S. Agency for International Development.

⁸Year 2000 Computing Challenge: Federal Government Making Progress But Critical Issues Must Still Be Addressed to Minimize Disruptions. (GAO/T-AIMD-99-144, April 14, 1999).

⁹Year 2000 Computing Crisis: Medicare and the Delivery of Health Services Are at Risk (GAO/T-AIMD-99-89, February 24, 1999) and Year 2000 Computing Crisis: Readiness Status of the Department of Health and Human Services (GAO/T-AIMD-99-92, February 26, 1999).

Additionally, not all systems have undergone an independent verification and validation process. For example, the Environmental Protection Agency and the Department of the Interior reported that 57 and 3 of their systems, respectively, deemed compliant were still undergoing independent verification and validation. In some cases, independent verification and validation of compliant systems have found serious problems. For example, as we testified this February, ¹⁰ none of HCFA's 54 external mission-critical systems reported by the Department of Health and Human Services as compliant as of December 31, 1998, was Year 2000 ready, based on serious qualifications identified by the independent verification and validation contractor.

Reviews Show Uneven Federal Agency Progress

While the Year 2000 readiness of the government has improved, our reviews of federal agency Year 2000 programs have found uneven progress. Some agencies are significantly behind schedule and are at high risk that they will not fix their systems in time. Other agencies have made progress, although risks continue and a great deal of work remains. The following are examples of the results of some of our recent reviews.

• In March 1999, we testified that the Federal Aviation Administration (FAA) had made tremendous progress over the prior year. ¹¹ However, much remained to be done to complete validating and implementing FAA's mission-critical systems. Specifically, the challenges that FAA faced included (1) ensuring that systems validation efforts are adequate, (2) implementing multiple systems at numerous facilities, (3) completing data exchange efforts, and (4) completing end-to-end testing. In addition, last week we testified ¹² that 10 of FAA's 52 noncompliant mission-critical systems are among the systems that it has identified as posing the greatest risk to the National Airspace System—the network of equipment, facilities, and information that supports U.S. aviation operations—should their Year 2000 repairs experience schedule delays or should the systems not be operational on January 1, 2000. Because of the risks associated with FAA's Year 2000 program, we have advocated that the agency develop business continuity and contingency

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 $^{^{10}\}mathrm{GAO/T\text{-}AIMD\text{-}}99\text{-}92,$ February 26, 1999.

¹¹ Year 2000 Computing Crisis: FAA Is Making Progress But Important Challenges Remain (GAO/T-AIMD/RCED-99-118, March 15, 1999).

¹²GAO/T-AIMD-99-144, April 14, 1999.

- plans.¹³ FAA agreed and has activities underway that we are currently reviewing.
- Earlier this month, we reported that the Federal Reserve System—which is instrumental to our nation's economic well-being since it provides depository institutions and government agencies services such as processing checks and transferring funds and securities—has effective controls to help ensure that its Year 2000 progress is reported accurately and reliably. We also found that it is effectively managing the renovation and testing of its internal systems and the development and planned testing of contingency plans for continuity of business operations. Nevertheless, the Federal Reserve System still had much to accomplish before it is fully ready for January 1, 2000, such as completing validation and implementation of all of its internal system and completing its contingency plans.
- Our work has shown that the Department of Defense and the military services face significant problems. ¹⁵ In March 1999, we testified that, despite considerable progress made in the 3 months before the testimony, Defense was still well behind schedule. ¹⁶ We found that Defense faced two significant challenges: (1) it must complete remediation and testing of its mission-critical systems and (2) it must have a reasonable level of assurance that key processes will continue to work on a day-to-day basis and key operational missions necessary for national defense can be successfully accomplished. We concluded that such assurance can only be provided if Defense takes steps to improve its visibility over the status of key business processes.

End-to-End Testing Must Be Completed

While it is important to achieve compliance for individual mission-critical systems, realizing such compliance alone does not ensure that business

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¹³FAA Computer Systems: Limited Progress on Year 2000 Issue Increases Risk Dramatically (GAO/AIMD-98-45, January 30, 1998), GAO/T-AIMD-98-251, August 6, 1998, and GAO/T-AIMD/RCED-99-118. March 15, 1999.

¹⁴ Year 2000 Computing Crisis: Federal Reserve Has Established Effective Year 2000 Management Controls for Internal Systems Conversion (GAO/AIMD-99-78, April 9, 1999).

 $[\]begin{array}{l} ^{15}\underline{\text{Defense Computers: Year 2000 Computer Problems Put Navy Operations at Risk}} \quad \text{(GAO/AIMD-98-150,} \\ \underline{\text{June 30, 1998), Defense Computers: Army Needs to Greatly Strengthen Its Year 2000 Program} \\ \underline{\text{(GAO/AIMD-98-53, May 29, 1998), GAO/AIMD-98-72, April 30, 1998, and}} \quad \underline{\text{Defense Computers: Air Force Needs to Strengthen Year 2000 Oversight (GAO/AIMD-98-35, January 16, 1998).}} \\ \end{array}$

¹⁶Year 2000 Computing Crisis: Defense Has Made Progress, But Additional Management Controls Are Needed (GAO/T-AIMD-99-101, March 2, 1999).

functions will continue to operate through the change of century—the ultimate goal of Year 2000 efforts. The purpose of end-to-end testing is to verify that a defined set of interrelated systems, which collectively support an organizational core business area or function, will work as intended in an operational environment. In the case of the year 2000, many systems in the end-to-end chain will have been modified or replaced. As a result, the scope and complexity of testing—and its importance—are dramatically increased, as is the difficulty of isolating, identifying, and correcting problems. Consequently, agencies must work early and continually with their data exchange partners to plan and execute effective end-to-end tests (our Year 2000 testing guide sets forth a structured approach to testing, including end-to-end testing). ¹⁷

In January 1999, we testified that with the time available for end-to-end testing diminishing, OMB should consider, for the government's most critical functions, setting target dates, and having agencies report against them, for the development of end-to-end test plans, the establishment of test schedules, and the completion of the tests. ¹⁸ On March 31, OMB and the Chair of the President's Council on Year 2000 Conversion announced that one of the key priorities that federal agencies will be pursuing during the rest of 1999 will be cooperative efforts regarding end-to-end testing to demonstrate the Year 2000 readiness of federal programs with states and other partners critical to the administration of those programs.

We are also encouraged by some agencies' recent actions. For example, we testified this March that the Department of Defense's Principal Staff Assistants are planning to conduct end-to-end tests to ensure that systems that collectively support core business areas can interoperate as intended in a Year 2000 environment. Further, our March 1999 testimony found that FAA had addressed our prior concerns with the lack of detail in its draft end-to-end test program plan and had developed a detailed end-to-end testing strategy and plans. ²¹

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¹⁷GAO/AIMD-10.1.21, November 1998.

¹⁸ Year 2000 Computing Crisis: Readiness Improving, But Much Work Remains to Avoid Major Disruptions (GAO/T-AIMD-99-50, January 20, 1999).

 $^{^{19}}$ GAO/T-AIMD-99-101, March 2, 1999.

 $^{^{20}}$ GAO/T-AIMD/RCED-99-118, March 15, 1999.

 $^{^{21}}$ GAO/T-AIMD-98-251, August 6, 1998.

Business Continuity and Contingency Plans Are Needed

Business continuity and contingency plans are essential. Without such plans, when unpredicted failures occur, agencies will not have well-defined responses and may not have enough time to develop and test alternatives. Federal agencies depend on data provided by their business partners as well as on services provided by the public infrastructure (e.g., power, water, transportation, and voice and data telecommunications). One weak link anywhere in the chain of critical dependencies can cause major disruptions to business operations. Given these interdependencies, 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. Accordingly, in April 1998, we recommended that the Council require agencies to develop contingency plans for all critical core business processes. ²²

OMB has clarified its contingency plan instructions and, along with the Chief Information Officers Council, has adopted our business continuity and contingency planning guide. ²³ In particular, on January 26, 1999, OMB called on federal agencies to identify and report on the high-level core business functions that are to be addressed in their business continuity and contingency plans as well as to provide key milestones for development and testing of business continuity and contingency plans in their February 1999 quarterly reports. Accordingly, in their February 1999 reports, almost all agencies listed their high-level core business functions. Indeed, major departments and agencies listed over 400 core business functions. For example, the Department of Veterans Affairs classified its core business functions into two critical areas: benefits delivery (six business lines supported this area) and health care.

Our review of the 24 major departments and agencies February 1999 quarterly reports found that business continuity and contingency planning was generally well underway. However, we also found cases in which agencies (1) were in the early stages of business continuity and contingency planning, (2) did not indicate when they planned to complete and/or test their plans, (3) did not intend to complete their plans until after April 1999, or (4) did not intend to finish testing the plans until after September 1999. In January 1999, we testified before you that OMB could

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²²Year 2000 Computing Crisis: Potential for Widespread Disruption Call for Strong Leadership and Partnerships (GAO/AIMD-98-85, April 30, 1998).

²³GAO/AIMD-10.1.19, August 1998.

consider setting a target date, such as April 30, 1999, for the completion of business continuity and contingency plans, and require agencies to report on their progress against this milestone. ²⁴ This would encourage agencies to expeditiously develop and finalize their plans and would provide the President's Council on Year 2000 Conversion and OMB with more complete information on agencies' status on this critical issue. To provide assurance that agencies' business continuity and contingency plans will work if they are needed, we also suggested that OMB may want to consider requiring agencies to test their business continuity strategy and set a target date, such as September 30, 1999, for the completion of this validation.

On March 31, OMB and the Chair of the President's Council on Year 2000 Conversion announced that completing and testing business continuity and contingency plans as insurance against disruptions to federal service delivery and operations from Year 2000-related failures will be one of the key priorities that federal agencies will be pursuing through the rest of 1999. OMB also announced that it planned to ask agencies to submit their business continuity and contingency plans in June. In addition to this action, we would encourage OMB to implement the suggestion that we made in our January 20 testimony and establish a target date for the validation of these business continuity and contingency plans.

Recent OMB Action Could Help Ensure Business Continuity of High-Impact Programs

While individual agencies have been identifying and remediating mission-critical systems, the government's future actions need to be focused on its high-priority programs and ensuring the continuity of these programs, including the continuity of federal programs that are administered by states. Accordingly, governmentwide priorities need to be based on such criteria as the potential for adverse health and safety effects, adverse financial effects on American citizens, detrimental effects on national security, and adverse economic consequences. In April 1998, we recommended that the President's Council on Year 2000 Conversion establish governmentwide priorities and ensure that agencies set agencywide priorities. ²⁵

On March 26, 1999, OMB implemented our recommendation by issuing a memorandum to federal agencies designating lead agencies for the

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 $^{^{24}}$ GAO/T-AIMD-99-50, January 20, 1999.

²⁵GAO/AIMD-98-85, April 30, 1998.

government's 42 high-impact programs (e.g., food stamps, Medicare, and federal electric power generation and delivery); appendix I lists these programs and lead agencies. For each program, the lead agency was charged with identifying to OMB the partners integral to program delivery; taking a leadership role in convening those partners; assuring that each partner has an adequate Year 2000 plan and, if not, helping each partner without one; and developing a plan to ensure that the program will operate effectively. According to OMB, such a plan might include testing data exchanges across partners, developing complementary business continuity and contingency plans, sharing key information on readiness with other partners and the public, and taking other steps necessary to ensure that the program will work. OMB directed the lead agencies to provide a schedule and milestones of key activities in the plan by April 15. OMB also asked agencies to provide monthly progress reports.

State and Local Governments Face Significant Year 2000 Risks

State and local governments also face a major risk of Year 2000-induced failures to the many vital services that they provide. For example,

- food stamps and other types of payments may not be made or could be made for incorrect amounts;
- date-dependent signal timing patterns could be incorrectly implemented at highway intersections, and safety severely compromised, if traffic signal systems run by state and local governments do not process fourdigit years correctly; and
- prisoner release or parole eligibility determinations may be adversely affected by the Year 2000 problem.

A recent survey of state Year 2000 efforts indicated that much remains to be completed. The states²⁶ (except for three that did not respond to the survey) reported to the National Association of State Information Resource Executives that as of April 5, 1999, ²⁷ they had thousands of mission-critical systems. ²⁸ With respect to the remediation of these systems,

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 $^{^{26}}$ In the context of the National Association of State Information Resource Executives survey, the term states includes Guam, Puerto Rico, and the District of Columbia.

²⁷Individual states submit periodic updates to the National Association of State Information Resource Executives. For the April 5th report, almost all of the states submitted their data in March 1999.

 $^{^{28}}$ The National Association of State Information Resource Executives defined mission-critical systems as those that the state has identified as priorities for prompt remediation.

- 1 state reported that it had completed between 1 and 24 percent of the activities required to return a modified system or renovated process to production,
- 13 states²⁹ reported that they had completed between 25 and 49 percent,
- 17 states³⁰ reported completing between 50 and 74 percent,
- 17 states³¹ reported completing more than 75 percent of these activities, ³² and
- almost all states reported that they are actively engaged in internal and external contingency planning but of the 50 states that established target dates for the completion of these plans, 23 (46 percent) reported the deadline as September 1999 or later.

State audit organizations have also identified significant Year 2000 concerns. In January 1999, the National State Auditors Association reported on the results of its mid-1998 survey of Year 2000 compliance among states. This report stated that, for the 12 state audit organizations that provided Year 2000 related reports, concerns had been raised in areas such as planning, testing, embedded systems, business continuity and contingency planning, and the adequacy of resources to address the problem. We identified additional products by 13 state-level audit organizations and Guam that discussed the Year 2000 problem and had been issued since October 1, 1998. Several of these audit organizations noted that progress had been made. However, the audit organizations also expressed concerns that were consistent with those reported by the National State Auditors Association. For example:

• In December 1998, the Vermont State Auditor reported ³³ that the state Chief Information Officer did not have a comprehensive control list of the state's information technology systems. Accordingly, the Audit Office stated that even if all mission-critical state systems were checked, these systems could be endangered by information technology

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 $^{^{29}}$ Instead of reporting on its mission-critical systems, one state reported on its processes while another reported on its functions.

³⁰Instead of reporting on its mission-critical systems, one state reported on its core business activities, another state reported on projects, and a third state reported on all systems.

³¹Instead of reporting on its mission-critical systems, one state reported on its applications.

³²Two states did not respond to this question.

³³ <u>Vermont State Auditor's Report on State Government's Year 2000 Preparedness (Y2K Compliance) for the Period Ending November 1, 1998</u> (Office of the State Auditor, December 31, 1998).

- components that had not been checked or by linkages with the states' external electronic partners.
- In January 1999, the Rhode Island Auditor General reported³⁴ that testing standards and a test plan had not been developed.
- In February 1999, the California State Auditor reported ³⁵ that key agencies responsible for emergency services, corrections, and water resources, among others, had not fully addressed embedded technology related threats. Regarding emergency services, the California report stated that if remediation of the embedded technology in its networks is not completed, the Office of Emergency Services may have to rely on cumbersome manual processes, significantly increasing response time to disasters.
- In March 1999, Oregon's Audits Division reported ³⁶ that 11 of the 12 state agencies reviewed did not have business continuation plans addressing potential Year 2000 problems for their core business functions.
- In March 1999, North Carolina's State Auditor reported ³⁷ that resource restrictions had limited the state's Year 2000 Project Office's ability to verify data reported by state agencies.

Recent reports on local governments have also highlighted Year 2000 concerns at this level. For example:

- In January 1999, the United States Conference of Mayors reported on the results of their survey of 220 cities. The results of this survey of cities found (1) 97 percent had a citywide plan to address Year 2000 issues, (2) 22 percent had repaired or replaced less than 50 percent of their systems, and (3) 45 percent had completed less than 50 percent of their testing.
- A November 1998 National Association of Counties survey of a sample of 500 counties found that (1) 50 percent of the counties had a countywide Year 2000 plan, (2) 36 percent had completed assessment,

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³⁴ <u>State of Rhode Island, Efforts to Resolve the Year 2000 Computer Issue</u> (Office of the Auditor General, January 29, 1999).

³⁵Year 2000 Computer Problem: The State's Agencies Are Progressing Toward Compliance but Key Steps Remain Incomplete (California State Auditor, February 18, 1999).

³⁶Department of Administrative Services Year 2000 Statewide Project Office Review (Secretary of State, Audits Division, State of Oregon Report No. 99-05, March 16, 1999).

³⁷Department of Commerce, Information Technology Services Year 2000 Project Office (Office of the State Auditor, State of North Carolina, March 18, 1999).

(3) 16 percent had repaired or replaced their systems, and (4) 73 percent had no contingency plans.

Status of State-Administered Federal Human Services Programs Not Clear

About 25 percent of the federal government's programs designated as high-impact by OMB are state-administered, such as Food Stamps and Temporary Assistance for Needy Families. One federal system that did not make the March implementation target is critical to the implementation of several of these programs. This system, the Department of Health and Human Service's Payment Management System, processes billions of dollars in grant payments to states and other recipient organizations for vital programs, such as Medicaid. As we testified in February 1999, the planned replacement system has encountered problems since its inception and, as a result, is still not operational. ³⁸ Consequently, the Department of Health and Human Services decided to repair the existing system, which is not expected to be compliant until June 30, 1999.

As we reported in November 1998, many systems that support state-administered federal human services programs were at risk and much work remained to ensure continued services. ³⁹ In February of this year, we testified that while some progress had been achieved, many states' systems were not scheduled to become compliant until the last half of 1999. ⁴⁰ Accordingly, we concluded that given these risks, business continuity and contingency planning was even more important in ensuring continuity of program operations and benefits in the event of systems failures.

In January 1999, OMB implemented a requirement that federal oversight agencies include the status of selected state human services systems in their quarterly reports. Specifically, OMB requested that the agencies describe actions to help ensure that federally supported, state-run programs will be able to provide services and benefits. OMB further asked that agencies report the date when each state's systems will be Year 2000 compliant. Table 1 summarizes the information gathered by the Departments of Agriculture, Health and Human Services, and Labor on how

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³⁸GAO/T-AIMD-99-92, February 26, 1999.

³⁹ Year 2000 Computing Crisis: Readiness of State Automated Systems to Support Federal Welfare Programs (GAO/AIMD-99-28, November 6, 1998).

⁴⁰Year 2000 Computing Crisis: Readiness of State Automated Systems That Support Federal Human Services Programs (GAO/T-AIMD-99-91, February 24, 1999).

many state-level organizations are compliant or when in 1999 they planned to be compliant.

Program	Compliant	January- March	April- June	July- September	October- December	No report
Food Stamps	15	10	12	8	5	0
Unemployment Insurance	21	6	13	8	1	1
Temporary Assistance for Needy Families	7	3	12	4	2	22
Medicaid-Integrated Eligibility System	3	1	8	5	1	33
Medicaid–Management Information Systems	7	7	14	12	2	9
Child Support	4	6	10	3	2	25
Child Care	4	3	8	5	2	31
Child Welfare	6	3	8	5	2	27
Women, Infants, and Children	24	8	6	6	6	0

^aAccording to OMB, the Departments of Agriculture and Health and Human Services were still collecting information from the states on the status of the Child Nutrition Program and the Low Income Home Energy Assistance Program, respectively.

Note: OMB reported the status of five programs for 50 state-level organizations (Food Stamps, Unemployment Insurance, Temporary Assistance for Needy Families, Child Support, and Women, Infants, and Children). The status of two programs was provided for 51 state-level organizations (Medicaid and Child Welfare). The status of Child Care was provided for 53 state-level organizations.

Source: <u>Progress on Year 2000 Conversion</u>, (OMB, data received February 12, 1999, issued on March 18, 1999).

This table illustrates the need for federal/state partnerships to ensure the continuity of these vital services, since a considerable number of state-level organizations are not due to be compliant until the last half of 1999, and the agencies have not received reports from many states. Such partnerships could include the coordination of federal and state business continuity and contingency plans for human services programs.

One agency that could serve as a model to other federal agencies in working with state partners is the Social Security Administration, which relies on states to help process claims under its disability insurance program. In October 1997, we made recommendations to the Social Security Administration to improve its monitoring and oversight of state disability determination services and to develop contingency plans that consider the disability claims processing functions within state disability

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determination services systems. ⁴¹ The Social Security Administration agreed with these recommendations and, as we testified this February, has taken several actions. ⁴² For example, it established a full-time disability determination services project team, designating project managers and coordinators and requesting biweekly status reports. The agency also obtained from each state disability determination service (1) a plan specifying the specific milestones, resources, and schedules for completing Year 2000 conversion tasks and (2) contingency plans. Such an approach could be valuable to other federal agencies in helping ensure the continued delivery of services.

In addition to the state systems that support federal programs, another important aspect of the federal government's Year 2000 efforts with the states are data exchanges. For example, the Social Security Administration exchanges data files with the states to determine the eligibility of disabled persons for disability payments and the National Highway Traffic Safety Administration provides states with information needed for drivers registration. As part of addressing this issue, the General Services Administration is collecting information from federal agencies and the states on the status of their exchanges through a secured Internet World Wide Web site. According to an official at the General Services Administration, 70 percent of federal/state data exchanges are Year 2000 compliant. However, this official would not provide us with supporting documentation for this statement nor would the General Services Administration allow us access to its database. Accordingly, we could not verify the status of federal/state data exchanges.

Year 2000 Readiness Information Available in Some Sectors, But Key Information Still Missing or Incomplete

Beyond the risks faced by the federal, state, and local governments, the Year 2000 also poses a serious challenge to the public infrastructure, key economic sectors, and other countries. To address these concerns, in April 1998, we recommended that the Council use a sector-based approach and establish the effective public-private partnerships necessary to address this

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⁴¹Social Security Administration: Significant Progress Made in Year 2000 Effort, But Key Risks Remain (GAO/AIMD-98-6, October 22, 1997).

 $^{^{42}}$ Year 2000 Computing Crisis: Update on the Readiness of the Social Security Administration (GAO/T-AIMD-99-90, February 24, 1999).

issue.⁴³ The Council subsequently established over 25 sector-based working groups and has been initiating outreach activities since it became operational last spring. In addition, the Chair of the Council has formed a Senior Advisors Group composed of representatives from private-sector firms across key economic sectors. Members of this group are expected to offer perspectives on crosscutting issues, information sharing, and appropriate federal responses to potential Year 2000 failures.

Our April 1998 report also recommended that the President's Council on Year 2000 Conversion develop a comprehensive picture of the nation's Year 2000 readiness, to include identifying and assessing risks to the nation's key economic sectors—including risks posed by international links. In October 1998, the Chair directed the Council's sector working groups to begin assessing their sectors. The Chair also provided a recommended guide of core questions that the Council asked to be included in surveys by the associations performing the assessments. These questions included the percentage of work that has been completed in the assessment, renovation, validation, and implementation phases. The Chair plans to issue quarterly public reports summarizing these assessments. The first such report was issued on January 7, 1999.

The January 7, 1999, report summarizes information collected to date by the working groups and various trade associations. ⁴⁴ The Council acknowledged that readiness data in certain industries were not yet available and, therefore, were not included in the report. Nevertheless, based on the information available at the time, it concluded that

- virtually all of the industry areas reported high awareness of the Year 2000 and its potential consequences;
- participants in several areas, particularly financial institutions, are mounting aggressive efforts to combat the problem;
- it is increasingly confident that there will not be large-scale disruptions in the banking, power, and telecommunications areas and, if disruptions do occur, they are likely to be localized;
- large organizations often have a better handle on the Year 2000 problem than do smaller ones, and some small-and medium-sized businesses and

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⁴³GAO/AIMD-98-85, April 30, 1998.

 $^{^{44}}$ First Quarterly Summary of Assessment Information (The President's Council on Year 2000 Conversion, January 7, 1999).

- governments continue to believe that the Year 2000 problem will not affect them or are delaying action until failures occur; and
- international failures are likely since, despite recent increased efforts, a number of countries have done little to remediate critical systems.

The Council's report was a good step toward obtaining a picture of the nation's Year 2000 readiness. However, the picture remains substantially incomplete because assessments were not available in many key areas, such as local law enforcement and the maritime industry. Also, some surveys did not have a high response rate, calling into question whether they accurately portray the readiness of the sector. In addition, in some cases, such as drinking water and health care, the report provided a general assessment of the sector but did not contain detailed data as to the status of the sector (e.g., the average percentage of organization's systems that are Year 2000 compliant or the percentage of organizations that are in the assessment, renovation, or validation phases).

The President's Council on Year 2000 Conversion is to be commended on the strides that it has made to obtain Year 2000 readiness data that are critical to the nation's well-being as well as its other initiatives, such as the establishment of the Senior Advisors Group. However, to further reduce the likelihood of major disruptions, in testimony this January, ⁴⁵ we suggested that the Council consider additional actions such as continuing to aggressively pursue readiness information in the areas in which it is lacking. If the current approach of using associations to voluntarily collect information does not yield the necessary information, we suggested that the Council may wish to consider whether legislative remedies (such as requiring disclosure of Year 2000 readiness data) should be proposed. The Council's next sector report is expected to be released this month. As discussed below, we have issued several products related to several of these key sectors.

Energy Sector

This month, we reported that while the electric power industry has reported that it has made substantial progress in making its systems and equipment ready to continue operations into the Year 2000, significant risks

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⁴⁵GAO/T-AIMD-99-50, January 20, 1999.

remain. 46 In response to a November 1998 survey, the nation's electric power utilities reported that on average, they were 44 percent complete with remediation and testing. However, almost half of the reporting organizations said that they did not expect to be Year 2000 ready within the June 1999 industry target date, and about one-sixth of the respondents indicated they would not be ready until the last 3 months of 1999—leaving little margin for resolving unexpected problems. In this report, we suggested that the Department of Energy (1) work with the Electric Power Working Group to ensure that remediation activities are accelerated for the utilities that expect to miss the June 1999 deadline for achieving Year 2000 readiness and (2) encourage state regulatory utility commissions to require a full public disclosure of Year 2000 readiness status of entities transmitting and distributing electric power. We also suggested that the Nuclear Regulatory Commission, (1) in cooperation with the Nuclear Energy Institute, work with the nuclear power plant licensees to accelerate the Year 2000 remediation efforts among the nuclear power plants that expect to meet the June 1999 deadline for achieving Year 2000 readiness and (2) publicly disclose the Year 2000 readiness of each of the nation's operational nuclear reactors.

Health Sector

Last week, we testified ⁴⁷ that in response to our September 1998 recommendation, ⁴⁸ the Food and Drug Administration, in conjunction with the Department of Veterans Affairs, had established a clearinghouse on biomedical equipment. As of April 5, 1999, 4,251 biomedical equipment manufacturers had submitted data to the clearinghouse. About 54 percent of these manufacturers reported having products that do not employ dates and about 16 percent reported having date-related problems such as an incorrect display of date/time. The Food and Drug Administration was awaiting responses from 399 manufacturers.

Our April testimony also reported on the results of a Department of Veterans Affairs survey of 384 pharmaceutical firms and 459 medicalsurgical firms with which it does business. Of the 52 percent of

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⁴⁶Year 2000 Computing Crisis: Readiness of the Electric Power Industry (GAO/AIMD-99-114, April 6, 1999).

⁴⁷Year 2000 Computing Crisis: Action Needed to Ensure Continued Delivery of Veterans Benefits and Health Care Services (GAO/T-AIMD-99-136, April 15, 1999).

⁴⁸Year 2000 Computing Crisis: Compliance Status of Many Biomedical Equipment Items Still Unknown (GAO/AIMD-98-240, September 18, 1998).

pharmaceutical firms that responded to the survey, 32 percent reported that they were compliant. Of the 54 percent of the medical-surgical firms that responded, about two-thirds of them reported that they were compliant.

Banking and Finance Sector

A large portion of the institutions that make up the banking and finance sector are overseen by one or more federal regulatory agencies. In September 1998, we testified on the efforts of five federal financial regulatory agencies ⁴⁹ to ensure that the institutions that they oversee are ready to handle the Year 2000 problem. ⁵⁰ We concluded that the regulators had made significant progress in assessing the readiness of member institutions and raising awareness on important issues such as contingency planning and testing. Regulator examinations of bank, thrift, and credit union Year 2000 efforts found that the vast majority were doing a satisfactory job of addressing the problem. Nevertheless, the regulators faced the challenge of ensuring that they are ready to take swift action to address those institutions that falter in the later stages of correction and to address disruptions caused by international and public infrastructure failures.

In March 1999, we concluded that insurance regulator presence regarding the Year 2000 area was not as strong as that exhibited by the banking and securities industry. We found that the state insurance regulators we contacted were late in raising industry awareness of potential Year 2000 problems, provided little guidance to regulated institutions, and failed to convey clear regulatory expectations to companies about Year 2000 preparations and milestones. Nevertheless, the insurance industry is reported by both its regulators and other outside observers to be generally on track to being ready for 2000. However, most of these reports are based on self-reported information and, compared to other financial regulators, insurance regulators' efforts to validate this information generally began late and were too limited.

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⁴⁹The National Credit Union Administration, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, the Federal Reserve System, and the Office of the Comptroller of the Currency.

⁵⁰Year 2000 Computing Crisis: Federal Depository Institution Regulators Are Making Progress, But Challenges Remain (GAO/T-AIMD-98-305, September 17, 1998).

⁵¹Insurance Industry: Regulators Are Less Active in Encouraging and Validating Year 2000 <u>Preparedness</u> (GAO/T-GGD-99-56, March 11, 1999).

Transportation Sector

This January we reported on our survey of 413 airports. ⁵² We found that while the nation's airports are making progress in preparing for the year 2000, such progress varies among airports. Of the 334 airports responding to our survey, about one-third reported that they would complete their Year 2000 preparations by June 30, 1999. The other two-thirds either planned on a later date or failed to estimate any completion date, and half of these airports did not have contingency plans for any of 14 core airport functions. Although most of those not expecting to be ready by June 30 are small airports, 26 of them are among the nation's largest 50 airports.

In summary, while improvement has been shown, much work remains at the national, federal, state, and local level to ensure that major service disruptions do not occur. Specifically, remediation must be completed, end-to-end testing performed, and business continuity and contingency plans developed. To meet this challenge, strong leadership and partnerships must be maintained to ensure that government programs meet the needs of the public at the turn of the century.

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

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⁵² Year 2000 Computing Crisis: Status of Airports' Efforts to Deal With Date Change Problem (GAO/RCED/AIMD-99-57, January 29, 1999).

Federal High-Impact Programs and Lead Agencies

Agency	Program
Department of Agriculture	Child Nutrition Programs
Department of Agriculture	Food Safety Inspection
Department of Agriculture	Food Stamps
Department of Agriculture	Special Supplemental Nutrition Program for Women, Infants, and Children
Department of Commerce	Patent and trademark processing
Department of Commerce	Weather Service
Department of Defense	Military Hospitals
Department of Defense	Military Retirement
Department of Education	Student Aid
Department of Energy	Federal electric power generation and delivery
Department of Health and Human Services	Child Care
Department of Health and Human Services	Child Support Enforcement
Department of Health and Human Services	Child Welfare
Department of Health and Human Services	Disease monitoring and the ability to issue warnings
Department of Health and Human Services	Indian Health Service
Department of Health and Human Services	Low Income Home Energy Assistance Program
Department of Health and Human Services	Medicaid
Department of Health and Human Services	Medicare
Department of Health and Human Services	Organ Transplants
Department of Health and Human Services	Temporary Assistance for Needy Families
Department of Housing and Urban Development	Housing loans (Government National Mortgage Association)
Department of Housing and Urban Development	Section 8 Rental Assistance
Department of Housing and Urban Development	Public Housing
Department of Housing and Urban Development	FHA Mortgage Insurance
Department of Housing and Urban Development	Community Development Block Grants
Department of the Interior	Bureau of Indians Affairs programs
Department of Justice	Federal Prisons
Department of Justice	Immigration
Department of Labor	Unemployment Insurance
Department of State	Passport Applications and Processing
Department of Transportation	Air Traffic Control system
Department of Transportation	Maritime Search and Rescue
Department of the Treasury	Cross-border Inspection Services
Department of Veterans Affairs	Veterans' Benefits
Department of Veterans Affairs	Veterans' Health Care
Federal Emergency Management Agency	Disaster Relief
Office of Personnel Management	Federal Employee Health Benefits
Office of Personnel Management	Federal Employee Life Insurance

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Appendix I Federal High-Impact Programs and Lead Agencies

Office of Personnel Management	Federal Employee Retirement Benefits	
Railroad Retirement Board	Retired Rail Workers Benefits	
Social Security Administration	Social Security Benefits	
U.S. Postal Service	Mail Service	

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Year 2000 Computing Crisis: Action Needed to Ensure Continued Delivery of Veterans Benefits and Health Care Services (GAO/T-AIMD-99-136, April 15, 1999).

<u>Year 2000 Computing Challenge: Federal Government Making Progress But Critical Issues Must Still Be Addressed to Minimize Disruptions</u> (GAO/T-AIMD-99-114, April 14, 1999).

Year 2000 Computing Crisis: Additional Work Remains to Ensure Delivery of Critical Services (GAO/T-AIMD-99-143, April 13, 1999).

<u>Tax Administration: IRS' Fiscal Year 2000 Budget Request and 1999 Tax Filing Season</u> (GAO/T-GGD/AIMD-99-140, April 13, 1999).

Year 2000 Computing Crisis: Federal Reserve Has Established Effective Year 2000 Management Controls for Internal Systems Conversion (GAO/AIMD-99-78, April 9, 1999).

Year 2000 Computing Crisis: Readiness of the Electric Power Industry (GAO/AIMD-99-114, April 6, 1999).

Year 2000 Computing Crisis: Customs Has Established Effective Year 2000 Program Controls (GAO/AIMD-99-37, March 29, 1999).

<u>Year 2000 Computing Crisis: FAA Is Making Progress But Important Challenges Remain</u> (GAO/T-AIMD/RCED-99-118, March 15, 1999).

<u>Insurance Industry: Regulators Are Less Active in Encouraging and Validating Year 2000 Preparedness</u> (GAO/T-GGD-99-56, March 11, 1999).

<u>Year 2000 Computing Crisis: Defense Has Made Progress, But Additional Management Controls Are Needed</u> (GAO/T-AIMD-99-101, March 2, 1999).

Year 2000 Computing Crisis: Readiness Status of the Department of Health and Human Services (GAO/T-AIMD-99-92, February 26, 1999).

<u>Defense Information Management: Continuing Implementation Challenges Highlight the Need for Improvement</u> (GAO/T-AIMD-99-93, February 25, 1999).

IRS' Year 2000 Efforts: Status and Remaining Challenges (GAO/T-GGD-99-35, February 24, 1999).

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<u>Department of Commerce: National Weather Service Modernization and NOAA Fleet Issues</u> (GAO/T-AIMD/GGD-99-97, February 24, 1999).

Year 2000 Computing Crisis: Medicare and the Delivery of Health Services Are at Risk (GAO/T-AIMD-99-89, February 24, 1999).

Year 2000 Computing Crisis: Readiness of State Automated Systems That Support Federal Human Services Programs (GAO/T-AIMD-99-91, February 24, 1999).

Year 2000 Computing Crisis: Customs Is Effectively Managing Its Year 2000 Program (GAO/T-AIMD-99-85, February 24, 1999).

<u>Year 2000 Computing Crisis: Update on the Readiness of the Social Security Administration</u> (GAO/T-AIMD-99-90, February 24, 1999).

<u>Year 2000 Computing Crisis: Challenges Still Facing the U.S. Postal Service</u> (GAO/T-AIMD-99-86, February 23, 1999).

<u>Year 2000 Computing Crisis: The District of Columbia Remains Behind Schedule</u> (GAO/T-AIMD-99-84, February 19, 1999).

High-Risk Series: An Update (GAO/HR-99-1, January 1999).

<u>Year 2000 Computing Crisis: Status of Airports' Efforts to Deal With Date Change Problem</u> (GAO/RCED/AIMD-99-57, January 29, 1999).

<u>Defense Computers: DOD's Plan for Execution of Simulated Year 2000</u> <u>Exercises</u> (GAO/AIMD-99-52R, January 29, 1999).

<u>Year 2000 Computing Crisis:</u> Status of Bureau of Prisons' Year 2000 Efforts (GAO/AIMD-99-23, January 27, 1999).

<u>Year 2000 Computing Crisis: Readiness Improving, But Much Work Remains to Avoid Major Disruptions</u> (GAO/T-AIMD-99-50, January 20, 1999).

Year 2000 Computing Challenge: Readiness Improving, But Critical Risks Remain (GAO/T-AIMD-99-49, January 20, 1999).

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

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

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

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

<u>Year 2000 Computing Crisis: Updated Status of Department of Education's Information Systems</u> (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).

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

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

<u>Year 2000 Computing Crisis: Compliance Status of Many Biomedical</u> <u>Equipment Items Still Unknown</u> (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).

<u>Year 2000 Computing Crisis: Federal Depository Institution Regulators Are Making Progress, But Challenges Remain</u> (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).

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

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

<u>Year 2000 Computing Crisis:</u> 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).

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

<u>Year 2000 Computing: EFT 99 Is Not Expected to Affect Year 2000 Remediation Efforts</u> (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).

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

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

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

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

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

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

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

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

<u>Year 2000 Computing Crisis: Federal Regulatory Efforts to Ensure Financial Institution Systems Are Year 2000 Compliant</u> (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).

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

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<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</u> <u>Failures</u> (GAO/T-AIMD-98-63, February 4, 1998).

FAA Computer Systems: Limited Progress on Year 2000 Issue Increases Risk Dramatically (GAO/AIMD-98-45, January 30, 1998).

<u>Defense Computers: Air Force Needs to Strengthen Year 2000 Oversight</u> (GAO/AIMD-98-35, January 16, 1998).

<u>Year 2000 Computing Crisis: Actions Needed to Address Credit Union Systems' Year 2000 Problem</u> (GAO/AIMD-98-48, January 7, 1998).

<u>Veterans Health Administration Facility Systems: Some Progress Made In Ensuring Year 2000 Compliance, But Challenges Remain</u> (GAO/AIMD-98-31R, November 7, 1997).

<u>Year 2000 Computing Crisis: National Credit Union Administration's Efforts to Ensure Credit Union Systems Are Year 2000 Compliant</u> (GAO/T-AIMD-98-20, October 22, 1997).

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<u>Defense Computers: Technical Support Is Key to Naval Supply Year 2000 Success (GAO/AIMD-98-7R, October 21, 1997).</u>

<u>Defense Computers: LSSC Needs to Confront Significant Year 2000 Issues</u> (GAO/AIMD-97-149, September 26, 1997).

<u>Veterans Affairs Computer Systems: Action Underway Yet Much Work Remains To Resolve Year 2000 Crisis</u> (GAO/T-AIMD-97-174, September 25, 1997).

Year 2000 Computing Crisis: Success Depends Upon Strong Management and Structured Approach (GAO/T-AIMD-97-173, September 25, 1997).

<u>Year 2000 Computing Crisis: An Assessment Guide</u> (GAO/AIMD-10.1.14, September 1997).

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<u>Defense Computers: SSG Needs to Sustain Year 2000 Progress</u> (GAO/AIMD-97-120R, August 19, 1997).

<u>Defense Computers: Improvements to DOD Systems Inventory Needed for Year 2000 Effort (GAO/AIMD-97-112, August 13, 1997).</u>

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<u>Government Functions Calls for Agency Action Now</u> (GAO/T-AIMD-97-52, February 27, 1997).

Year 2000 Computing Crisis: Strong Leadership Today Needed To Prevent Future Disruption of Government Services (GAO/T-AIMD-97-51, February 24, 1997).

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