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Report to the Chairman, Committee on Banking, Housing, and Urban Affairs, U.S. Senate

February 1992

## OFFICE OF THRIFT SUPERVISION

Stronger System Controls Needed to Prevent Call Report Delays





GAO/IMTEC-92-22



GAO	United States General Accounting Office Washington, D.C. 20548		
	Information Management and Technology Division B-246887 February 14, 1992 The Honorable Donald Riegle, Jr. Chairman, Committee on Banking, Housing, and Urban Affairs United States Senate Dear Mr. Chairman: The Office of Thrift Supervision (OTS) last year encountered an automated system delay, resulting in the late issuance of data on thrift institutions' operating conditions for the quarter ending September 30, 1990. <sup>1</sup> The Con- gress and public rely on the timely release of such data—referred to as call reports—to gauge the individual and collective health of U.S. thrifts.		
		This report responds to your August 6, 1991, request to determine (1) the cause and extent of the OTS delay and (2) the adequacy of steps taken by OTS to correct the problem. Our February 1991 report explained how delays in issuing bank and thrift call reports for the quarter ending March 31, 1990, were caused by automated systems problems encountered by the Federal Reserve System and OTS. <sup>2</sup> Details of our objectives, scope, and methodology appear in appendix I.	
		Results in Brief	OTS' inadequate information resource management controls resulted in a 39-day delay in the call reports for the quarter ending September 30, 1990. Specifically, system and human errors occurred because OTS lacks the policies and quality assurance functions needed to control these activities. OTS has taken action to strengthen its system controls, but until the needed controls are fully implemented, it remains vulnerable to similar system problems and associated call report delays.
		Background	Thrifts prepare quarterly call reports for OTS, the federal thrift regulator. These reports include detailed information on the operating condition of individual thrift institutions (e.g., income and asset levels). Call reports play an important role in OTS' supervision of the thrifts. They allow the thrift regulator to monitor the safety and soundness of each thrift and of
			<sup>1</sup> The term thrift refers to the savings and loan associations and saving banks regulated by OTS.
			<sup>2</sup> Banks and Thrifts: Cause of Federal Regulators' Delays in Releasing Timely Call Report Data

(GAO/IMTEC-91-26BR, Feb. 26, 1991).

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	the thrift industry as a whole. On-site examinations are conducted by OTS to specifically review thrifts' financial well being.
	OTS processes call reports for approximately 2,164 thrifts. After it obtains the data from the thrifts, its automated system edits the data for accuracy. When this editing is completed, OTS submits the data on magnetic tape to the National Technical Information Service, which copies the data and makes them available to the public. <sup>3</sup> OTS' Office of Information Resources Management is responsible for operating and maintaining the automated system that processes the thrift call report data. In our February 1991 report, we described how OTS was late in releasing thrift data for the quarter ending March 31, 1990, due to unsuccessful software modifica- tions to its entire automated system that prevented the system from prop- erly editing thrift data. Specifically, the software was not developed correctly to completely edit the data and was not tested prior to implemen- tation to determine whether the edits worked. OTS eventually corrected the software but was nearly 6 weeks late in issuing the thrift call reports.
Edited Call Report Data Lost	The release of thrift call report data to the public for the third quarter of 1990 was delayed due to a series of preventable errors that resulted in the destruction of the edited thrift call report data maintained in the system. OTS was unable to prevent these errors because it lacks the policies and quality assurance functions needed to control its automated system operations.
Procedural Errors Resulted in Loss of Edited Data	While OTS was processing the call report data for the quarter ending Sep- tember 30, 1990, a contractor performing maintenance on the call report system inadvertently destroyed the edited call report data being maintained on the system. An attempt by OTS to promptly restore the edited data from back-up tapes failed when an OTS official unintentionally erased the tapes during the attempt.
	The contractor performing maintenance on the thrift call report system experienced a communications failure that caused the system to malfunc- tion and destroy the edited data. OTS officials said that the agency has an unwritten policy calling for the back-up of data prior to performing maintenance, but the contractor failed to follow this policy. The contractor requested assistance from the OTS official responsible for the system, who attempted to restore the edited data from OTS' set of back-up tapes.
	<sup>3</sup> The National Technical Information Service is part of the U.S. Department of Commerce.

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	However, the official did not take appropriate steps to protect and restore the edited data. Specifically, the official did not ensure that a copy of the back-up tapes existed and used software—not designed or authorized for the restoration function—which destroyed the back-up tapes. According to OTS officials, the loss of the edited data resulted in OTS' having to re-edit and verify the data received from the thrifts. As a result, the National Technical Information Service did not receive the data from OTS until January 22, 1991—39 days after the targeted date of December 14, 1990. These officials noted that during this time OTS had use of unedited data originally submitted by the thrifts and was able to release summary data on the industry as a whole.
OTS Lacks Formal Controls Needed to Prevent Errors	OTS lacked the controls needed to minimize the automated system prob- lems it had processing third quarter 1990 data. Specifically, OTS did not have formal policies and procedures for system maintenance, system back-up, and restoration of data. For example, OTS did not have adequate controls in place to oversee the performance and actions of the contractor hired to perform maintenance on its system.
	Federal agencies are encouraged to establish formal data processing poli- cies and procedures and to institute an independent quality assurance func- tion to enforce compliance. <sup>4</sup> Establishing such policies and procedures for systems maintenance and data back-up, and ensuring compliance with them, is critical to the management and control of information resources. These policies and procedures provide the guidance needed to minimize the effects of unexpected processing problems.
	OTS information management officials stated that the delay could have been avoided had they developed and enforced formal back-up and mainte- nance procedures and supervised contractor activities more closely. These weaknesses created an environment in which errors, such as those that destroyed the edited call report data and delayed issuance of the data, could take place. These and other control weaknesses were reported in an

<sup>&</sup>lt;sup>4</sup>Guide to Auditing for Controls and Security: A System Development Life Cycle Approach, National Bureau of Standards, Apr. 1988, and <u>Guidelines for Documentation of Computer Programs and Automated Data Systems</u>, National Bureau of Standards, Feb. 1976.

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	April 1991 internal audit report, which addressed the effectiveness of agency information security and control procedures. <sup>5</sup> The report also stated that the integrity of OTS' systems was in question, which raises concerns about their ability to consistently process data in a timely manner.
OTS Actions to Correct System Weaknesses	Since the delay, OTS has taken steps to prevent similar errors from dis- rupting its automated operations. It has (1) developed draft policies and procedures for performing system maintenance; (2) issued a manual for- mally documenting policies and procedures for operating, backing up, and restoring the thrift report system; (3) shifted maintenance duties from the contractor to OTS staff for closer control and supervision; and (4) assigned quality assurance responsibilities to OTS technical staff responsible for operating its call report system.
	The steps taken by OTS, however, do not adequately address its quality assurance weaknesses. Specifically, by assigning quality assurance duties to staff responsible for operating the system, OTS is providing the staff with conflicting duties, which impairs the independence of quality assurance. In addition, information management officials said that the staff assigned quality assurance duties would have many other operational responsibilities, which would be given priority over quality assurance. Con- sequently, the steps taken by OTS fall short of providing adequate quality assurance controls.
Conclusions	OTS, the Congress, and the public rely on timely call report data to gauge the health of the thrift industry. However, problems with OTS' automated call report system have delayed issuance of such data. While many of the system control weaknesses found have been addressed, OTS has not final- ized the system maintenance policies and has not adequately addressed its quality assurance weaknesses. Until it does, OTS' automated system will remain vulnerable to similar problems and delays.

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<sup>&</sup>lt;sup>5</sup>Report on the Review of the Information Resources Management Function, Washington Office, Office of Thrift Supervision, Apr. 17, 1991.

Recommendation to the Director, Office of Thrift Supervision	To ensure the timely release of thrift call reports, we recommend that the Director, Office of Thrift Supervision, strengthen system controls. Such action should include (1) finalizing policies and procedures on system maintenance and (2) establishing a quality assurance function independent of operations.
Agency Comments	The Director provided written comments on a draft of this report and gen- erally agreed with its findings and recommendations. The Director stated that maintenance policies and procedures are scheduled to be approved and implemented by January 15, 1992, and that compliance with them will be confirmed by an independent third party. With regard to establishing a quality assurance function, the Director said that he is uncertain as to whether OTS will have the resources to implement this function. However, he added that OTS will analyze further the resources necessary to imple- ment such a function and make a final determination on this matter by May 1, 1992.
,	Our work was performed from October through December 1991, in accor- dance with generally accepted government auditing standards. We are providing copies of this report to other members of Congress, executive branch agencies, and the public. We will also make copies avail- able to others upon request. This work was performed under the direction of Howard G. Rhile, Director, General Government Information Systems, who can be reached at (202) 336-6418. Other major contributors are listed in appendix II. Sincerely yours, Ralph V. Carlone Assistant Comptroller General

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## Appendix 1 Objectives, Scope, and Methodology

Our objectives were to determine (1) the cause and extent of OTS' delay in issuing thrift call report data for the quarter ending September 30, 1990, and (2) whether OTS has taken adequate steps to correct the problem and avoid its recurrence.

To determine the cause and extent of the delay, we interviewed senior automated data processing officials at OTS' Office of Information Resource Management, responsible for operating and maintaining the thrift call report system. Our discussions focused on what caused the system problems, how long the agency was delayed in issuing the call report data, and what steps OTS has taken to prevent the problem from recurring. In addition, we reviewed documentation showing the corrective measures OTS implemented after the delay to determine the adequacy of the steps taken, and obtained and analyzed information on OTS' milestones and actual production dates to document the extent of the delay. We also reviewed an April 1991 audit report prepared by OTS internal auditors tasked with evaluating the agency's information resources management.

## Appendix II Major Contributors to This Report

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