GAO
Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

May 19, 2005

The Honorable Robert E. Andrews
The Honorable Steven C. LaTourette
House of Representatives

Subject: *Federal Real Property: Lightning Protection Systems for Federal Buildings*

Your letter, dated June 30, 2004, to the Comptroller General expressed concern that the federal government may not have a uniform approach to protecting its facilities from lightning strikes. As a result, you requested a GAO study on issues related to whether the federal government should adopt a uniform standard for lightning protection systems. We selected four agencies for this study—the General Services Administration (GSA), the Veterans Health Administration (VHA), the U.S. Postal Service (USPS), and the Department of Defense (DOD).[1] These agencies hold over 80 percent (in terms of square footage) of the government's owned and leased property. The objectives of this study were to determine (1) to what extent these selected federal agencies use applicable lightning protection standard(s) to help protect buildings they own from lightning strikes; (2) how these selected federal agencies assess the need for lightning protection systems on their buildings; (3) what practices and lightning protection standard(s) the General Services Administration uses when leasing privately owned buildings; and (4) what data exist related to the financial impact of lightning protection and damage to the federal government, such as the number of buildings with lightning protection systems, the costs associated with installing lightning protection systems, and the costs to repair buildings struck by lightning. We conducted our work from December 2004 through April 2005 in accordance with generally accepted government auditing standards.

This report summarizes information we provided to your staff during our April 29, 2005, briefing. The briefing slides are attached as enclosure I.

Background

According to the Lightning Protection Institute,[2] lightning kills nearly 100 people every year in the United States, injures hundreds of others, and causes billions of

[1] For purposes of this report, we use the term "agency" to include all four federal entities.

[2] The Lightning Protection Institute is a nationwide not-for-profit organization. According to the Institute, it seeks to promote and enforce quality and safety in the design and installation of lightning protection systems.

dollars in property damage; it often results in fire and total property loss. In the 1700s, Benjamin Franklin proposed a method of protecting structures from the effects of lightning. The method was based on his observations, which suggested that (1) lightning preferentially strikes elevated objects and (2) the energy from lightning can be transmitted to and dissipated in the earth (thereby redirecting the energy away from a building's structure) through a suitable network of conductors and grounding electrodes—a lightning protection system. Various approaches to lightning protection have been tried over the past 250 years, and many have been described and published as lightning protection standards.

To help protect people and property, the National Fire Protection Association (NFPA) first adopted specifications for installing lightning protection systems on buildings in 1904. Those specifications have evolved over time and are now referred to as NFPA-780, Standard for the Installation of Lightning Protection Systems. The most recent version of the document was approved by the American National Standards Institute in August 2004.[3] To help architects, engineers, and others decide whether their commercial, industrial, farm, institutional, or residential buildings (ordinary buildings) need protection from lightning, NFPA-780 also provides a methodology for determining whether a building is at risk from lightning and for deciding whether lightning protection should be installed. Other standards related to the installation of lightning protection systems augment NFPA-780, including standards developed by (1) the Underwriters Laboratories Inc. (UL) and (2) agencies with special needs, such as buildings that house munitions and explosives (nonordinary buildings).

Results of Our Study

We found the following:

- When decisions are made to install lightning protection systems, all of the agencies in our review—GSA, VHA, USPS, and DOD—require the systems to be installed in accordance with NFPA-780. This standard (1) describes, among other things, the dimensions and the types of materials to be used; (2) illustrates the correct placement of lightning conductors on various types of roofs; and (3) contains additional material such as information about lightning theory, measurement techniques, and methods for protecting parked aircraft. The policies of all of the agencies also explicitly require that the materials and installation comply with standards in UL 96 and/or UL 96A, respectively.[4] These standards contain requirements, such as the use of certified installers, that help ensure that NFPA-780 is followed and that the lightning protection systems will operate as intended.

[3] The American National Standards Institute is a private, nonprofit organization that accredits the procedures of organizations that develop standards.

[4] GSA recently revised its policy on April 1, 2005, to require the use of UL 96. Its prior policy was not explicit on this point; however, GSA officials told us that the agency followed UL 96 and UL 96A as appropriate.

- When designing new buildings or renovating existing ones, USPS, VHA, and DOD's Navy specifically require the use of NFPA-780's risk assessment and decision-making methodology for deciding whether to install a lightning protection system. To determine whether a lightning protection system should be installed, the methodology assesses risk using such variables as (1) the value of a building's contents, (2) the type and size of the building, (3) the number of occupants in the building, and (4) the frequency of lightning strikes in the building's vicinity.[5] If the estimated lightning risk exceeds an accepted (tolerable) level of risk, NFPA-780 recommends the installation of a lightning protection system. Another agency—GSA—did not explicitly require the preparation of lightning risk assessments until April 2005.[6] However, GSA officials told us that in practice, the agency routinely required architects and engineers to use NFPA-780's risk assessment and decision-making methodology when designing or renovating buildings. Finally, although the Army and the Air Force do not currently follow NFPA-780's risk assessment and decision-making methodology, they have identified related variables for assessing risk and making decisions to install lightning protection systems when designing new buildings or renovating existing ones. Specifically, their current guidance requires installing a lightning protection system on a building if the frequency of lightning is more than five thunderstorms per year and if the building (1) is 50 feet or higher; (2) has four stories with elevators, stairwell penthouses, or other similar projections above the roof; or (3) has five or more floors with or without projections. Other factors, such as whether the building is occupied or has valuable contents, may also be considered. The three military services, as part of DOD's Unified Facilities Criteria Development Program, are working to develop consistent guidance across the services. A draft of that guidance mandates the use of NFPA-780's risk assessment and decision-making methodology and allows each service to consider additional factors, such as whether the building is mission critical and whether the value of the building's contents is significant. According to DOD, a final draft of this new guidance is expected late this fall.

- GSA leases buildings for its use and for many executive branch agencies.[7] According to GSA officials, its lease agreements with private building owners do not require buildings to have lightning protection systems.

---

[5] NFPA-780 risk assessment and decision-making methodology does not explicitly include cost as suggested by guidance from the Office of Management and Budget. However, our analysis indicates that cost may be implicitly considered, because installation of lightning protection systems is not recommended at all locations where lightning risk exists.

[6] The agency's new policy states that "[t]he decision to recommend a lightning protection system shall be made at the earliest stages of design and shall be supported by a study as prescribed by NFPA-780."

[7] Other agencies have special requirements and have authority to lease their own buildings. One such agency is VHA. VHA officials told us that because their buildings house patients in critical care and support patients on life-sustaining medical systems, their agency requires more stringent standards than those provided by GSA.

However, its lease agreements do require building owners to conform to all applicable state and local building codes, including those concerning the installation of lightning protection systems, where required. The officials also said that unlike federally owned facilities, any costs to repair federally leased properties struck by lightning are the responsibility of the building owner. In some circumstances, GSA enters into a "design/build" arrangement with private companies with the intent of leasing back a building. We were told by agency officials that in such cases, GSA requires that building design and construction be done in accordance with federal standards, including those concerning the installation of lightning protection systems, where required.

- Various data exist, but they are outdated, unreliable, or incomplete. For example, industry data on the financial impact of lightning are outdated and not specific to the federal government. Likewise, although the National Oceanic and Atmospheric Administration (NOAA) collects data on fatalities, injuries, casualties, and damages due to lightning strikes, the data also are not specific to the federal government. Moreover, NOAA acknowledged that the data are often unreliable and incomplete because the agency's personnel are unaware of all of the incidents of lightning. As a result, a number of incidents are never documented. GSA compiles information on federal properties and annually publishes a worldwide inventory of federal properties, which includes information about the physical characteristics and value of each property. However, GSA does not currently collect information about the number of buildings with lightning protection systems. Finally, none of the agencies we reviewed collect data on, among other things, (1) the number of buildings with lightning protection systems, (2) the costs associated with installing lightning protection systems, and (3) the costs to repair buildings struck by lightning. Local agency officials also do not collect this data; although they maintain information such as building maintenance records, the information is incomplete and not readily available. According to agency officials, agencies do not specifically maintain or track data related to lightning strikes because such strikes are rare and, consequently, not a problem. Nevertheless, agency officials identified 20 possible lightning strikes associated with their buildings over the last 10 or more years. According to the officials, the total cost of repairs was about $636,000 ranging from $300 to repair a roof at a GSA facility to $207,000 to replace a fire alarm system at a postal facility. No deaths or injuries were reported.

In summary, the four agencies in our review account for the vast majority of the government's owned and leased property and have adopted NFPA-780, the national standard for installing lightning protection systems. These agencies also follow or plan to follow NFPA-780's risk assessment and decision-making methodology for determining when lightning protection systems should be installed. Although none of the agencies collect data on lightning-related damages, federal agency officials we interviewed from geographical areas where

lightning incidents were relatively frequent did not consider lightning a significant concern, partly because they believed adequate measures had already been taken to protect their buildings.

Agency Comments and Our Evaluation

We provided a draft of our April 29, 2005, briefing to each of the four agencies for their review and comment. We also provided NOAA with applicable excerpts from the draft. All four agencies agreed with our findings. GSA, DOD, and NOAA provided technical comments, which we incorporated as appropriate.

Scope and Methodology

To satisfy the objectives of our engagement, we interviewed headquarters officials from GSA, VHA, USPS, and DOD. These agencies hold over 80 percent (in terms of square footage) of the government's owned and leased property. We obtained and reviewed the agencies' standards and policies for assessing the need for and installing lightning protection systems on their ordinary buildings, information about requirements for leasing ordinary buildings, and available data on the financial impact to the government. We also contacted officials from NOAA and Vaisala Inc. to obtain data on the frequency and location of lightning strikes. Vaisala Inc. is a private company that operates a national lightning detection network and publishes flash density maps showing the locations and frequency of lightning.[8] We used this data to select locations for 12 additional interviews with field officials at GSA, VHA, and USPS, as well as officials from DOD's military services—the Army, the Navy, and the Air Force. We conducted 6 of the 12 interviews with officials in areas that have the highest incidences of lightning strikes according to Vaisala Inc.'s data.[9] The other six interviews were conducted with field officials in areas that experience fewer lightning strikes.[10] Finally, we spoke with officials from NFPA, UL,[11] the Lightning Protection Institute, and various lightning protection system manufacturers and installers to obtain, among other information, their views on lightning protection standards.

[8] Vaisala Inc. operates a system of approximately 100 sensors throughout the United States to detect and track lightning strikes. Its parent company is headquartered in Finland.

[9] We identified locations with the highest incidences of lightning (nine or more lightning strikes per square kilometer per year) using Vaisala Inc.'s 1996-2000 flash density map, as of December 31, 2000. These areas generally include states in the Southeast region of the country, such as Florida, Alabama, and Louisiana.

[10] According to Vaisala Inc.'s 1996-2000 flash density map, these areas, which include the states of Texas, Arkansas, and West Virginia, had fewer than nine strikes per square kilometer per year.

[11] According to UL, it has been testing and certifying lightning protection equipment since 1908. For a fee, UL issues certificates of conformance for systems, inspects system components, and checks completed installations. Installations are required to comply with UL's standards for lightning protection systems.

Copies of this letter are being sent to interested congressional members, the Secretaries of DOD and VHA, the Administrators of GSA and NOAA, and the Postmaster General. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov. If you or your staff members have any questions about this report, please contact me at goldsteinm@gao.gov or at (202) 512-2834. Key contributors to this assignment were Tamera L. Dorland, Steve Martinez, Kathleen J. Turner, and Dale M. Yuge.

Mark L. Goldstein
Director, Physical Infrastructure Team

Enclosure

GAO

Accountability * Integrity * Reliability

Lightning Protection Systems for Federal Buildings

Briefing for
Representative Robert E. Andrews and
Representative Steven C. LaTourette
April 29, 2005

1

GAO
Accountability * Integrity * Reliability

Background

- According to the Lightning Protection Institute,[1] lightning kills nearly one hundred people every year in the United States, injures hundreds of others, and causes billions of dollars in property damage, often resulting in fire and total property loss.

- To help protect people and property, the National Fire Protection Association (NFPA) first adopted specifications for installing lightning protection systems on buildings in 1904. Those specifications have evolved over time and are now referred to as NFPA-780, Standard for the Installation of Lightning Protection Systems. The most recent version of the document was approved by the American National Standards Institute in August 2004.[2]

[1] The Lightning Protection Institute is a nationwide not-for-profit organization. According to the Institute, it seeks to promote and enforce quality and safety in the design and installation of lightning protection systems.

[2] The American National Standards Institute is a private, nonprofit organization that accredits the procedures of organizations that develop standards.

2

GAO
Accountability * Integrity * Reliability

Background

- To help architects, engineers, and others decide whether their commercial, industrial, farm, institutional, or residential buildings (ordinary buildings) need protection from lightning,[3] NFPA-780 also provides a methodology for determining whether a building is at risk from lightning and for deciding whether lightning protection should be installed.

- Other standards related to the installation of lightning protection systems augment NFPA-780, including standards developed by (1) the Underwriters Laboratories Inc. (UL) and (2) federal agencies with special needs, such as buildings that house munitions and explosives (non-ordinary buildings).

[3] A lightning protection system helps protect a building from lightning by redirecting the energy through the system and away from a building's structure.

3

GAO
Accountability * Integrity * Reliability

Objectives

You asked us to determine

- to what extent selected federal agencies use applicable lightning protection standard(s) to help protect buildings they own from lightning strikes;
- how selected federal agencies assess the need for lightning protection systems on their buildings;
- what practices and lightning protection standard(s) the General Services Administration uses when leasing privately owned buildings; and
- what data exists related to the financial impact of lightning protection and damage to the federal government, such as the number of buildings with lightning protection systems, the costs associated with installing lightning protection systems, and the costs to repair buildings struck by lightning.

4

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- To satisfy the objectives of our engagement, we interviewed headquarters officials from the General Services Administration (GSA), the Veterans Health Administration (VHA), the U.S. Postal Service (USPS), and the Department of Defense (DOD). These four agencies hold over 80 percent (square footage) of the government's owned and leased property.[4]

- We obtained and reviewed the agencies' standards and policies for assessing the need for and installing lightning protection systems on their ordinary buildings, information about requirements for leasing ordinary buildings, and available data on the financial impact to the government.

[4] For purposes of this presentation, we use the term "agency" to include all four federal entities.

5

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- We also contacted officials from the National Oceanic and Atmospheric Administration (NOAA) and Vaisala Inc. to obtain data on the frequency and location of lightning strikes. Vaisala Inc. is a private company that operates a national lightning detection network and publishes flash density maps showing the locations and frequency of lightning.[5] We used this data to select locations for 12 additional interviews with field officials at GSA, VHA, and USPS, as well as officials from DOD's military services—the Army, the Navy, and the Air Force.

[5] Vaisala Inc. operates a system of approximately 100 sensors throughout the United States to detect and track lightning strikes. Its parent company is headquartered in Finland.

6

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- Six of the twelve interviews were conducted with officials in areas that have the highest incidences of lightning strikes according to Vaisala Inc.'s data.[6] The other six interviews were conducted with field officials in areas that experience fewer lightning strikes.[7]

[6] We identified locations with the highest incidences of lightning (nine or more lightning strikes per square kilometer per year) using Vaisala Inc.'s 1996-2000 flash density map, as of December 31, 2000. These areas generally include states in the Southeast region of the country, such as Florida, Alabama, and Louisiana.

[7] According to Vaisala Inc.'s 1996-2000 flash density map, these areas, which include the states of Texas, Arkansas, and West Virginia, had fewer than nine strikes per square kilometer per year.

7

GAO
Accountability * Integrity * Reliability

Scope and Methodology

- Finally, we spoke with officials from the NFPA, UL,[8] the Lightning Protection Institute, and various lightning protection system manufacturers and installers to obtain, among other information, their views on lightning protection standards. We conducted our work from December 2004 through April 2005 in accordance with generally accepted government auditing standards.

[8] According to UL, it has been testing and certifying lightning protection equipment since 1908. For a fee, UL issues certificates of conformance for systems, inspects system components, and checks completed installations. Installations are required to comply with UL's standards for lightning protection systems.

8

GAO
Accountability * Integrity * Reliability

Objective 1: All Four Agencies Require the Use of NFPA-780, at a Minimum, to Help Protect Their Buildings from Lightning Strikes

- When decisions are made to install lightning protection systems, all of the selected agencies require the systems to be installed in accordance with NFPA-780—the standard approved by the American National Standards Institute.

- The policies of all of the agencies also explicitly require that the materials and installation comply with standards in UL 96 and/or UL 96A, respectively.[9] These standards contain requirements, such as the use of certified installers, which help ensure that NFPA-780 is followed and that the lightning protection systems will operate as intended.

[9] GSA recently revised its policy to require the use of UL 96. Its prior policy was not explicit on this point; however, GSA officials told us that the agency followed UL 96 and UL 96A, as appropriate.

9

GAO
Accountability * Integrity * Reliability

Objective 1: All Four Agencies Require the Use of NFPA-780, at a Minimum, to Help Protect Their Buildings from Lightning Strikes

- In addition to NFPA-780 and UL standards, some organizations also require adherence to more stringent standards, such as military standards applicable to explosive manufacturing and storage facilities.

10

GAO
Accountability * Integrity * Reliability

Objective 2: All Four Agencies Follow or Plan to Follow NFPA-780's Risk Assessment and Decision-Making Methodology

- When designing new buildings or renovating existing ones, three of the six organizations—USPS, VHA, and DOD's Navy—specifically require the use of NFPA-780's risk assessment and decision-making methodology for deciding whether to install a lightning protection system. To calculate whether a lightning protection system should be installed, the methodology assesses risk using several variables, such as (1) the value of a building's contents, (2) the type and size of the building, (3) the number of occupants in the building, and (4) the frequency of lightning strikes in the building's area.[10] If the estimated lightning risk exceeds an accepted (tolerable) level of risk, NFPA-780 recommends the installation of a lightning protection system.

[10] NFPA-780's risk assessment and decision-making methodology does not explicitly include cost as suggested by guidance from the Office of Management and Budget. However, our analysis indicates that cost may be implicitly considered, since the installation of lightning protection systems is not recommended at all locations where lightning risk exists.

11

GAO
Accountability * Integrity * Reliability

Objective 2: All Four Agencies Follow or Plan to Follow NFPA-780's Risk Assessment and Decision-Making Methodology

- Until recently, GSA did not explicitly require the preparation of lightning risk assessments. However, GSA officials told us that, in practice, the agency routinely required architects and engineers to use NFPA-780's risk assessment and decision-making methodology when designing or renovating buildings. The agency's new policy, effective April 1, 2005, states that "the decision to recommend a lightning protection system shall be made at the earliest stages of design and shall be supported by a study as prescribed by NFPA-780."

12

GAO
Accountability * Integrity * Reliability

Objective 2: All Four Agencies Follow or Plan to Follow NFPA-780's Risk Assessment and Decision-Making Methodology

- While the Army and the Air Force do not currently follow NFPA-780's risk assessment and decision-making methodology, they have identified related variables for assessing risk and making decisions to install lightning protection systems when designing new buildings or renovating existing ones. Specifically, their current guidance requires installing a lightning protection system on a building if the frequency of lightning is more than five thunderstorms per year and if the building (1) is 50 feet or higher; (2) has four stories with elevators, stairwell penthouses, or other similar projections above the roof; or (3) has five or more floors with or without projections. Other factors, such as whether the building is occupied or has valuable contents, may also be considered.

13

GAO
Accountability * Integrity * Reliability

Objective 2: All Four Agencies Follow or Plan to Follow NFPA-780's Risk Assessment and Decision-Making Methodology

- The three military services, as part of DOD's Unified Facilities Criteria Development Program, are working on developing consistent guidance across the services. A draft of that guidance mandates the use of NFPA-780's risk assessment and decision-making methodology and allows each service to consider additional factors, such as whether the building is mission critical and whether the value of the building's contents is significant. According to DOD, a final draft of this new guidance is expected late this fall.

14

GAO
Accountability * Integrity * Reliability

Objective 2: All Four Agencies Follow or Plan to Follow NFPA-780's Risk Assessment and Decision-Making Methodology

- Because NFPA-780 and its risk assessment methodology continue to evolve, agency officials told us that existing buildings, especially older ones, may not have current lightning protection systems. As a result, they said their agencies routinely upgrade buildings in accordance with all current codes and standards when they renovate them. Even when they are not renovating, agency officials told us that they often add lightning protection systems to older buildings that contain mission critical equipment.

15

GAO
Accountability * Integrity * Reliability

Objective 3: GSA Typically Follows Local Building Codes When Leasing Privately Owned Buildings

- GSA leases buildings for its use and for most federal agencies. According to GSA officials, its lease agreements with private building owners do not require buildings to have lightning protection systems. However, its lease agreements do require building owners to conform to all applicable state and local building codes, including those concerning the installation of lightning protection systems, where required. Unlike federally owned facilities, any costs to repair federally leased properties struck by lightning are the responsibility of the building owner.

- In some circumstances, GSA enters into a "design/build" arrangement with private companies with the intent of leasing back a building. We were told by agency officials that, in such cases, GSA requires the buildings to be designed and constructed in accordance with federal standards, including those concerning the installation of lightning protection systems, where required.

16

GAO
Accountability * Integrity * Reliability

Objective 4: Limited Data Exist on the Financial Impact of Lightning Strikes to Federal Buildings

- Data exist, but they are outdated, unreliable, or incomplete.
  - Industry data exist on the financial impact of lightning, but they are outdated and not specific to the federal government.
  - NOAA collects data on fatalities, injuries, casualties, and damages due to lightning strikes; however, the data are not specific to the federal government. Moreover, NOAA acknowledged that the data are often unreliable and incomplete because the agency's personnel are unaware of all the incidences of lightning. As a result, a number of incidences are never documented.
  - GSA compiles information on federal properties and publishes a worldwide inventory of federal properties, which includes information about the physical characteristics and value of each property. However, GSA does not currently collect information about the number of buildings with lightning protection systems.

17

GAO
Accountability * Integrity * Reliability

Objective 4: Limited Data Exist on the Financial Impact of Lightning Strikes to Federal Buildings

- All four agencies we reviewed do not collect data on, among other things, (1) the number of buildings with lightning protection systems, (2) the costs associated with installing lightning protection systems, and (3) the costs to repair buildings struck by lightning.
- Local agency officials also do not collect this data and, although they maintain information such as building maintenance records, the information is incomplete and not readily available.
- According to agency officials, agencies do not specifically maintain or track data related to lightning strikes because such strikes are rare and, consequently, not a problem.

18

GAO
Accountability * Integrity * Reliability

Objective 4: Limited Data Exist on the Financial Impact of Lightning Strikes to Federal Buildings

- We spoke to over 50 agency officials, at headquarters and field locations, who are responsible for thousands of federal buildings, and determined that none of them views lightning as a significant concern at their facilities. In fact, none of these officials could recall any major consequences associated with lightning strikes to their buildings. They said that, where lightning struck, the majority of the damage occurred to the buildings' electrical systems—not the buildings' structures.[11] According to the officials, natural disasters such as hurricanes and tornadoes cause far greater damage and are of much more concern than lightning.

[11] Lightning protection systems help protect a building's structure. Such systems, however, are not intended to protect a building's electrical systems when lightning strikes in the building's vicinity. Additional measures are needed to protect electrical systems from power surges associated with these strikes.

19

GAO
Accountability * Integrity * Reliability

Objective 4: Limited Data Exist on the Financial Impact of Lightning Strikes to Federal Buildings

- While all of the agencies reported that lightning strikes to their buildings were rare or nonexistent, officials in 6 of the 12 field locations we contacted provided anecdotal information about lightning incidents. The officials identified 20 possible lightning strikes associated with their buildings over the last 10 or more years.[12] According to the officials, the total cost of repairs was about $636,000, and ranged from $300 to repair a roof at a GSA facility to $207,000 to replace a fire alarm system at a postal facility. No deaths or injuries were reported.

[12] Based on available information, some of the 20 incidents appear to have been caused by electricity spikes to electrical systems rather than by direct lightning strikes to buildings.

20

GAO
Accountability * Integrity * Reliability

Agency Comments

- We provided a draft of this presentation to each of the four agencies for their review and comment. We also provided NOAA with applicable excerpts from the draft. All four agencies agreed with our findings. GSA, DOD, and NOAA provided minor technical comments, which we incorporated as appropriate.

(543116)

21

(543131)

GAO's Mission

The Government Accountability Office, the audit, evaluation and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to www.gao.gov and select "Subscribe to Updates."

Order by Mail or Phone

The first copy of each printed report is free. Additional copies are $2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. Government Accountability Office
441 G Street NW, Room LM
Washington, D.C. 20548

To order by Phone: Voice: (202) 512-6000
TDD: (202) 512-2537
Fax: (202) 512-6061

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Gloria Jarmon, Managing Director, JarmonG@gao.gov (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, D.C. 20548

Public Affairs

Paul Anderson, Managing Director, AndersonP1@gao.gov (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, D.C. 20548