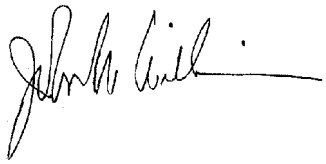
UNITED STATES DEPARTMENT OF AGRICULTURE
Farm Service Agency
Washington, DC 20250

Notice IRM-281

For: FSA, FAS, and RMA Employees

Information Systems Security Program

Approved by: Acting Deputy Administrator, Management



1 Implementing Information Systems Security Program

A Purpose

This notice provides policy for implementing the FFAS Information Systems Security Program.

B Policy Information

This policy:

- defines authorities, responsibilities, and security controls for implementing the FFAS Information Systems Security Program
- provides adequate security measures and safeguards to protect information resources from unauthorized access, use, modification, and disclosure

  Note: This includes information collected, processed, transmitted, stored, or disseminated in general support systems and major applications.

- is consistent with Government-wide policies, standards, and procedures issued by:
  - USDA
  - OMB
  - National Institute of Standards and Technology (NIST)
  - GSA
  - OPM.

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Disposal Date	Distribution
July 1, 1999	All FSA, FAS, and RMA employees; State Offices relay to County Offices

1 Implementing Information Systems Security Program (Continued)

C
Policy Intent

This policy will ensure that:

- development, implementation, and operations of automated information systems (AIS) and computing environments are secure, efficient, and cost-effective based on analyses of security risks and vulnerabilities

- all AIS processing, storing, or transmitting sensitive or nonsensitive information must meet the requirements of this policy through automated or manual means

  Note: More stringent requirements may be imposed based on a risk analysis.

- appropriate and cost-effective safeguards are employed to protect information resources from unauthorized access, use, modification, and disclosure

- information security management and technology issues are properly addressed, implemented, and enforced.

D
Policy Contents

This policy states:

- the importance and value of computer and information resources and the need to preserve and protect their integrity, confidentiality, and availability

- that all employees and contractors are required to protect information resources from accidental or deliberate unauthorized access, use, modification, or disclosure by employing adequate security measures through cost-effective technical and management controls

- the assignment of responsibilities for information systems security

- the requirement to provide mandatory computer security awareness training to employees who are involved in managing, using, or operating AIS according to the Computer Security Act of 1987 and OMB Circular A-130, Appendix III

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1 Implementing Information Systems Security Program (Continued)

D
Policy Contents (Continued)

- that all employees and contractors shall be personally accountable for information resources entrusted to them to perform official Government business only
- the requirement to assess information systems security measures and safeguards shall be performed through risk analyses, inspections, and audits.

E
General Policy Statement

Information resources include AIS, hardware, software, communications, and computing facilities that are owned, leased, or operated by or for FFAS.

FFAS shall implement at least the minimum security requirements as identified in this policy to protect information resources (sensitive and nonsensitive data) processed, stored, or transmitted by AIS. Based on risk analyses, additional security safeguards shall be applied to provide the most restrictive set of controls that permits the performance of authorized tasks.

All AIS processing, storing, or transmitting sensitive information must be accredited in major applications and general support systems.

Connectivity is prohibited between AIS that handle sensitive data and any other systems or networks not under FFAS authority unless formally approved by the FFAS Senior Information Resources Management Official (SIRMO) who is the FFAS Accrediting Authority.

All FFAS information resources are for official use only.

All persons who use, manage, operate, maintain, or develop AIS, applications, or data must comply with this policy.

All employees and contractors are required to protect information resources within their areas of responsibility from unauthorized access, use, modification, disclosure, destruction, or delay in service. Also, they are required to attend FFAS computer security awareness training sessions according to the Computer Security Act of 1987 and OMB Circular A-130, Appendix III.

All authorized access rights shall be terminated when they are no longer required. Departing employees and contractors shall be debriefed and must comply with this policy including Federal laws and USDA regulations concerning the separation process.

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1 Implementing Information Systems Security Program (Continued)

F
Scope and Applicability

This policy applies to all employees, contractors, other Federal and State agencies, universities, industry, farmers, reinsured companies, and the public who access and use FFAS information resources. This includes anyone involved in the design, development, review, acquisition, installation, operation, and maintenance of FFAS information resources.

G
Program Goals

All Federal applications require some level of protection. Certain applications because of the sensitive information in them require special management oversight and shall be treated as major applications. Adequate security for other applications shall be provided by security of the system in which they operate.

The goals of the FFAS Information Systems Security Program are to:

- establish and maintain adequate and cost-effective security measures and safeguards to ensure data confidentiality, integrity, and operational availability of information resources that process, store, or transmit nonsensitive and sensitive information
- provide information systems security policies and standards with centralized leadership, guidance, and direction to all offices for decentralized operations and implementation
- design and implement adequate and cost-effective security measures and safeguards to protect information resources by:
  - controlling and denying unauthorized access
  - restricting legitimate users to data or processes for which they are authorized
- ensure that AIS, software and communications packages, and gateways deliver data and information messages (text, numbers, images, etc.) with the same content that was entered
- ensure that unauthorized persons cannot intercept or interfere with transactions or delay them during transmission

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G
Program Goals (Continued)

- establish, monitor, and enforce adequate security requirements to protect information resources from unauthorized access, use, modification, or disclosure
- ensure that information systems security planning requirements are integrated into the system's development life cycle management process
- maintain continuity of operations by preventing or minimizing the impacts of events that interfere with normal information resources processing capabilities and mission critical operations
- ensure that appropriate resources are allocated to FFAS Information Systems Security Program including personnel, training, and funding as part of each Agency's information technology budget process
- provide computer security awareness training to all employees and contractors who are involved in managing, operating, or using information resources.

H
Disciplinary Actions

Any person who willfully or knowingly violates or fails to comply with the provisions of this policy shall be subject to appropriate disciplinary actions, such as suspension or dismissal.

All managers, supervisors, and contractors shall take the necessary disciplinary actions according to standard personnel procedures and shall notify HRD and OIG if required.

Authorized personnel, such as directors, contracting officers, information systems security officials, LAN administrators, and supervisors, may take possession of any FFAS-owned information resources or unauthorized resources at the instruction of appropriate management official or legal authority to examine the contents for violations of this policy including Federal laws and FFAS and USDA policies.

2 Authorities

A Legislation

The following laws, policies, and guidelines are applicable to this policy:

- Computer Security Act of 1987 (Pub. L. 100-235)
- Computer Fraud and Abuse Act of 1986 (Pub. L. 99-474)
- FOIA of 1980 (Pub. L. 93-502)
- Federal Managers' Financial Integrity Act of 1982 (Pub. L. 97-255)
- Electronic Communications Privacy Act of 1986 (Pub. L. 99-508)
- Privacy Act of 1974 (Pub. L. 93-579), 5 U.S.C. 552a, July 14, 1987
- Executive Order 10450 of April 27, 1954, Security Requirements for Government Employment
- Executive Order 12958 of April 17, 1995, Classified National Security Information
- Copyright Act (17 U.S.C. 105)
- U.S. Office of Government Ethics, Standards of Ethical Conduct for Employees of the Executive Branch.

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2 Authorities (Continued)

B OMB Circulars and Bulletins

The following OMB Circulars and Bulletins apply to this policy:

- OMB Circular A-130, Appendix III
- OMB Circular A-123
- OMB Circular A-127
- OMB Bulletin 90-08.

C Departmental Regulations

The following Department Regulations apply to this policy:

- USDA Departmental Manual (DM) 3140-1
- USDA DM 3140-2, Draft
- USDA DM 3140-3, Draft
- USDA DM 3140-4, Draft
- USDA DM 3140-5, Draft
- USDA DM 3140-6, Draft
- USDA DM 3140-7, Draft
- USDA DM 3140-8, Draft
- USDA DM 3200-1
- USDA DM 3200-2
- USDA DM 3440-1.
- USDA DR 3130-2
- USDA DR 3140-1
- USDA DR 3140-2
- USDA DR 3140-3, Draft
- USDA DR 3220-3
- USDA DR 3220-4
- USDA DR 3300-1, Section 4, Appendix I
- USDA DR 3400-4
- USDA DR 3430-1
- USDA DR 3440-1
- USDA DR 3450-1
- USDA DR 3450-2
- USDA DR 4090-1
- USDA Employee Handbook, Appendix I

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2 Authorities (Continued)

D
Other Authorities

Following are other authorities that apply to this policy:

- Union contracts and/or agreements
- Department of State, Foreign Affairs Manual (FAM), 12 FAM 500, "Information Security"
- Department of State, 12 FAM 600, "Information Security Technology"
- Department of State, Bureau of Diplomatic Security, "Security Standards Handbook"
- Department of State Cable, 90 STATE 187686, "Revised Standards for Storage of Classified Material"
- Federal Information Processing Standards and NIST special publications.

3 Responsibilities

A
Agency Administrators Responsibilities

FSA, FAS, and RMA Administrators shall establish and support a consolidated FFAS Information Systems Security Program that ensures compliance with established and mandated Federal laws and FFAS and USDA policies.

B
SIRMO Responsibilities

SIRMO shall:

- staff and fund FFAS Information Systems Security Program to ensure compliance with established and mandated Federal laws and FFAS and USDA policies
- exercise responsibility for managing, budgeting, directing, and implementing the program with cooperation and support from all offices.

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C
Deputy Administrators, Directors, Managers, and Supervisors Responsibilities

Deputy administrators, directors, managers, and supervisors shall:

- implement and enforce USDA and FFAS information systems security policies and procedures to protect information resources within their areas of responsibility
- monitor and report on compliance with Federal laws and FFAS and USDA policies
- assist in the development and implementation of a comprehensive risk management program to identify and evaluate security risks and vulnerabilities
- promote and support computer security awareness training for employees and contractors
- review proposed procurement requests to ensure that adequate and cost-effective security measures and safeguards are addressed
- participate in internal and external reviews and inspections to:
  - ensure compliance with established policies and procedures
  - monitor the correction of deficiencies identified in audits and reports
- issue appropriate instructions needed to implement provisions of information systems security policies and standards
- investigate and report all suspected and actual computer viruses, incidents, violations, or attempts to gain unauthorized access to information resources to appropriate officials; such as the immediate supervisor, SIRMO, the local information systems security officer, the Federal Protective Service (FPS), and OIG if required.

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3 Responsibilities (Continued)

D Information Systems Security Program Officials Responsibilities

Information Systems Security Program officials shall:

- provide overall management, leadership, and direction for the FFAS Information Systems Security Program
- formulate, coordinate, maintain, implement, and enforce appropriate security policies and standards to protect information resources from unauthorized access and disclosure
- monitor and report on compliance with Federal laws and FFAS and USDA information systems security policies
- formulate a comprehensive risk management program to identify and evaluate security risks and vulnerabilities

  Note: This includes the development and coordination of sensitive systems security plans, contingency plans, risk assessments, and the certification and accreditation of sensitive systems.

- be the principal point of contact on information systems security activities with the Department, FFAS management officials, other Federal agencies, and industry
- develop and implement a computer security awareness training program for all employees and contractors
- serve as a member of the Agency's acquisition review team to ensure that adequate and cost-effective security requirements are addressed
- participate in internal and external reviews, inspections, and audits to ensure compliance with Federal laws and FFAS and USDA policies
- monitor management decisions for corrective actions of deficiencies that were identified in audit reports
- investigate and report all suspected and actual computer viruses, incidents, breaches, and violations to appropriate FFAS and USDA officials; such as SIRMO, Departmental Information Systems Security Program Manager, FPS, and OIG if required
- formulate, coordinate, and publish the FFAS Annual Information Resources Management Security Program Status Reports, Sensitive Systems Security Plans, and the Security Strategic Plan.

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3 Responsibilities (Continued)

E
LAN Administrators Responsibilities

LAN administrators shall:

- plan, install, operate, and manage the day-to-day operations, security, and maintenance activities to safeguard and protect information resources from theft, damage, and unauthorized access

- monitor, report, and maintain information resources to include LAN and other computing environments and access by:

  - monitoring usage, traffic, and intruder lockout capabilities to identify any suspicious or attempted illegal access

  - generating operations and systems audit reports and audit trails that list appropriate information and violations

  - automatically suspending user identification codes that have been inactive for 30 calendar days

- manage and implement appropriate LAN and computer technology practices in conjunction with the FFAS Information Systems Security Program policies and standards including:

  - adding, updating, and deleting users from various computing environments
  - resetting passwords for users

- work closely with the information systems security officers in reviewing, evaluating, and recommending appropriate information systems security measures and safeguards to protect information resources from unauthorized access, use, and disclosure

- report all suspected and actual viruses, breaches, incidents, violations, or attempts to gain unauthorized access or misuse of any resource in the LAN administrator's areas of responsibility to appropriate officials; such as the immediate supervisor, SIRMO, information systems security officer, FPS, and OIG if required.

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3 Responsibilities (Continued)

F
Users and Contractors Responsibilities

Users and contractors shall:

- request appropriate computing environments access authorization from their immediate supervisor or oversight manager by completing the appropriate request forms
- ensure that user identification codes and passwords are held in strict confidence and properly safeguarded from unauthorized access, use, and disclosure
- understand and comply with all security requirements pertaining to Federal laws and FFAS and USDA policies
- refrain from exploiting any hardware, software, communications, or AIS weakness, such as intentionally modifying, destroying, reading, or transferring data and information in an unauthorized manner
- provide correct user identification codes and use only approved and authorized computing environments, equipment, AIS, data, and information resources for official use only as authorized by the immediate supervisor
- secure and log off from any computing environment when processing is completed

  Note: Always log off at the end of the workday.

- perform regular backups of data, software, applications, and information on computer resources using the fixed disk drive, tapes, and diskettes for disaster recovery purposes
- refrain from introducing any unauthorized or unscanned software, data, hardware or telecommunication devices or modifying any configurations without proper approval from SIRMO
- report any observed or suspected computer security virus, incident, breach, or violation to the immediate supervisor and local information systems security officer for appropriate investigation.

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3 Responsibilities (Continued)

G Facility Managers Responsibilities

Facility managers of ADP and IRM equipment, facilities, and information resources shall:

- conduct risk analyses and inspections to identify and evaluate risks and vulnerabilities
- manage daily ADP and IRM equipment, facilities, and information resources including information systems security and physical security operations that:
  - provide appropriate physical access controls to computer rooms, facility entrances, and exits

    Note: Allow only authorized personnel to enter the facility and maintain proper logs of authorized visitors.

  - provide appropriate security information, reports, and evaluations about the facility to management officials, information systems security officers, and customers
- formulate, coordinate, and submit Facility Sensitive Systems Security Plan to the FFAS Information Systems Security Program Manager
- formulate, test, and maintain contingency and disaster recovery procedures and plans
- work closely with the information systems security officers in reviewing, evaluating, and recommending appropriate computer security measures and safeguards to protect information resources from unauthorized access, use, and disclosure
- report all suspected and actual viruses, breaches, incidents, violations, or attempts to gain unauthorized access or misuse of any resource in the facility manager's area of responsibility to appropriate officials; such as the immediate supervisor, SIRMO, information systems security officer, FPS, or OIG if required.

4 Minimum Security Controls

A Categories of Controls

The minimum security controls can be divided into the following 3 categories:

- physical security
- technical security
- administrative security.

The FFAS Information Systems Security Program shall integrate a combination of these information systems security controls into a comprehensive program to protect information resources from unauthorized access, use, and disclosure.

At a minimum, the FFAS Information Systems Security Program includes the set of security controls established by:

- OMB Circular A-130, Appendix III
- USDA DR 3140-1
- Computer Security Act of 1987.

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4 Minimum Security Controls (Continued)

B
Physical Security

Physical security is concerned with the measures designed to:

- prevent unauthorized physical access to equipment, facilities, material, information, and documents
- safeguard them against espionage, sabotage, damage, tampering, theft, and other covert acts.

Hardware, software, telecommunications, documentation, and all sensitive information handled by AIS shall be adequately protected to prevent unauthorized access, use, modification, disclosure, or destruction. Before conducting sensitive operations at any location, security planning must consider physical security and information systems security as part of the accreditation process.

Following are types of physical security.

Type	Description
Facility Security	Security requirements for computer facilities shall include physical construction, fire protection, access controls, and environmental controls. Appropriate facility security measures shall be developed and implemented based on the level of risk to the computer and information resources as identified by a risk analysis report.
Environmental Security	Office areas that support desktop equipment shall have environmental controls specified for human safety and comfort. Facilities supporting large scale operations and telecommunications facilities may require additional physical, electrical, temperature, and humidity controls, such as fire suppression systems, uninterrupted power supply, air conditioning and water hazard detection systems to ensure the continuity of operations for facilities and equipment.

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4 Minimum Security Controls (Continued)

C
Technical Security

Technical security is the design of AIS that process, store, or transmit sensitive information that must include at a minimum the automated security features installed using standard hardware, software, and communications capabilities.

Following are types of technical security.

Type	Description
User Identification Code and Password	User access shall be controlled and limited based on positive user identification, password, and authentication mechanisms that support the minimum requirements of access control, least privilege, and system integrity.
Authentication	Authentication controls to verify the identity of each user may be a prerequisite to AIS access. The preferred method for verifying users is a password system where authentication is done each time the password is used.
Audit Records	AIS transactions are subject to recording and reviewing for inappropriate or illegal activity. Audit trails must be sufficient in detail to facilitate reconstruction of events if compromise or malfunction occurs.
Network Connections	Telecommunications connections between FFAS and non-FFAS networks, public, and private must be authorized by SIRMO. FFAS operating policy requires that any access to the Internet services be provided through approved gateways.

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4 Minimum Security Controls (Continued)

D Administrative Security

Administrative security consists of automated and manual controls and operational procedures used with or in place of computer security features. Administrative security controls must be documented in the Sensitive Systems Security Plan.

Following are types of administrative security.

Type	Description
Accountability and Access Control Criteria	Security access control criteria and administrative procedures must be established to limit authorized users access to information processed, stored, or transmitted including sensitive AIS.
Personnel	FFAS personnel and contractors entrusted with the management, operation, maintenance, or use of computer resources and sensitive information shall have the required appropriate management approvals and security clearances.
Risk Management	FFAS shall implement a process for identifying, measuring, controlling, and reducing security risks to information technology resources and sensitive information. This includes a: • risk analysis to identify and analyze threats, vulnerabilities, and the effectiveness of current or proposed safeguards • cost/benefit analysis, which determine the relative value of the resource to the cost of security measures • management decision to implement selected safeguards based on the risk analysis report, including accepting residual risks.
Inspections and Reviews	All information resources shall be periodically inspected and reviewed to ensure that management, operations, personnel, and security measures, controls, and safeguards are functioning properly. The type of inspection and review shall be commensurate with the type of risk acceptable to management officials.

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4 Minimum Security Controls (Continued)

D
Administrative Security (Continued)

Type	Description
Contingency Planning	FFAS general support systems and major applications shall have viable and logical Disaster Recovery and Contingency Operations Plans. These plans shall be routinely reviewed, tested, and updated to: • minimize damage and disruption caused by undesirable events • provide for continued performance of essential AIS and computer processing operations, services, and mission critical functions.
Accreditation	Accreditation is an acceptable level of risk for which management officials have formally assumed responsibility. The accreditation process shall ensure that adequate and cost-effective security measures and controls have been designed, tested, and implemented into sensitive AIS, LAN and computer facilities. Every sensitive AIS covered by this policy must be reaccredited every 3 years.
Education and Training	Education and training comprise key elements in the FFAS Information Systems Security Program. Computer security awareness training shall be mandatory for all employees and contractors who are involved in the management, use, or operation of AIS.
Sensitive Systems Security Plans	Sensitive Systems Security Plans must show how the system manager or owner of data is planning to protect and safeguard AIS, data, and information processing capabilities from loss, misuse, unauthorized access, and modification. Each plan must address disaster and recovery capabilities. These plans are part of the accreditation process for general support systems and major applications.

E
Obsolete Notice

Notice IRM-265 is obsolete.