~~DOCID: 3253346~~

Report 05-INTEL-03
December 15, 2004
Audit Report

OFFICE OF THE INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE

DEPUTY INSPECTOR GENERAL FOR INTELLIGENCE

Requirements for the TRAILBLAZER And THINTHREAD Systems (U//~~FOUO~~)

~~Special Warning~~

~~This document contains information exempt from mandatory disclosure under the Freedom of Information Act. This report contains certain unclassified information relating to the organization and function of the National Security Agency that may be protected by the National Security Act of 1959, as amended (50 United States Code § 402 (note)). Reproduction or removal of pages is prohibited. Safeguards must be taken to prevent publication or improper disclosure of the information in this report.~~

~~DERIVED FROM: NSA/CSSM 1-52~~
~~DATED: 23 November 2004~~
~~DECLASSIFY ON: 20291123~~

copy 12 of 50

Additional Copies (U)

(U To obtain copies of the report, contact Mr. Thomas F. Gimble at (703) 604-8800 (DSN 664-8800), [redacted] at (703) 604-[redacted] (DSN 664-[redacted]), or [redacted] at (410) 854-[redacted]

Suggestions for Audits (U)

(U) To suggest ideas for or to request future audits or evaluations of Defense intelligence issues, contact the Office of the Deputy Inspector General for Intelligence at (703) 604-8800 (DSN 664-8800) or fax (703) 604-0045. Ideas and requests can also be mailed to:

(U)

Office of the Deputy Inspector General for Intelligence
Attn: Executive Officer
Inspector General of the Department of Defense
400 Army Navy Drive (Room 703)
Arlington, VA 22202-4704

(U)

Defense Hotline (U)

(U) To report fraud, waste, or abuse, contact the Defense Hotline by calling (800) 424-9098; by sending an electronic message to Hotline@dodig.osd.mil; or writing the Defense Hotline, The Pentagon, Washington, DC 20301-1900. The identity of each writer and caller is fully protected.

Acronym (U)

(U) NSA/CSS **National Security Agency/Central Security Service**

b(6)
Per DoD IG

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

December 15, 2004

MEMORANDUM FOR DIRECTOR, NATIONAL SECURITY AGENCY / CHIEF, CENTRAL SECURITY SERVICE (U)

SUBJECT: Audit of the Requirements for the TRAILBLAZER and THINTHREAD Systems (Report No. 05-INTEL-03) (Project No. D2003AL-0100) (U//~~FOUO~~)

(U) We are providing this report for review and comment. This audit was initiated from a Hotline complaint. We considered management comments on a draft of this report in preparing the final report. Management conducted a security classification review of the draft report.

(U) DoD Directive 7650.3 requires that all recommendations be resolved promptly. Management nonconcurred with Recommendations A.1. and A.2. Management partially concurred with Recommendations A.3., B.1., B.2., and B.3. As a result of management comments, we revised Recommendations A.2.and B.1. We request that the Director, National Security Agency/Central Security Service provide additional comments on all recommendations by January 15, 2005.

(U) We appreciate the courtesies extended to the staff. Questions should be directed to [redacted] at (703) 604-[redacted] or [redacted] at (410) 854-[redacted]. See Appendix K for the report distribution. The team members are listed inside the back cover.

Thomas F. Gimble
Deputy Inspector General for
Intelligence

~~DATED: 23 November 2004~~
~~DECLASSIFY ON: 20291123~~

~~Special Warning~~

~~This document contains information exempt from mandatory disclosure under the Freedom of Information Act. This report contains certain unclassified information relating to the organization and function of the National Security Agency that may be protected by the National Security Act of 1959, as amended (50 United States Code § 402 (note)). Reproduction or removal of pages is prohibited. Safeguards must be taken to prevent publication or improper disclosure of the information in this report.~~

b(6)
Per DoD IG

THIS PAGE INTENTIONALLY LEFT BLANK (U)

Office of the Inspector General of the Department of Defense

Report No. 05-INTEL-03
(Project No. D2003AL-0100)

December 15, 2005

Requirements for the TRAILBLAZER and THINTHREAD Systems (U)

Executive Summary (U)

(U//~~FOUO~~) **(U) Who Should Read This Report and Why?** Acquisition decision makers at the National Security Agency (NSA); the designated NSA Milestone Decision Authority for the Under Secretary of Defense for Acquisition, Technology, and Logistics; and personnel in the Office of the Assistant Secretary of Defense (Networks and Information Integration) should read this report [redacted] the NSA.

(U//~~FOUO~~) Background. We performed this audit in response to a Defense Hotline complaint, which alleged that NSA actions in the development of THINTHREAD and TRAILBLAZER resulted in fraud, waste, and abuse. The specific allegations were: (1) TRAILBLAZER development wasted [redacted] dollars; (2) NSA disregarded solutions to urgent U.S. national security needs; (3) NSA modified or suppressed studies [redacted] and (4) NSA did not [redacted] THINTHREAD.

(S//SI) THINTHREAD. [redacted]

(U//~~FOUO~~) TRAILBLAZER. TRAILBLAZER is an Acquisition Category-IA program to acquire, through a series of spiral developments, an integrated system to provide the much-needed mission capability against the Global Network. [redacted] TRAILBLAZER is being developed. See Appendix B for further details.

(U//~~FOUO~~) [redacted]

(b)(3)-P.L. 86-36

(U//~~FOUO~~)

~~(S)~~ **Results.** NSA enhanced existing digital network exploitation systems, the National Security Agency is inefficiently using resources to develop a digital network exploitation system that is not capable of fully exploiting the digital network intelligence available to analysts from the Global Information Network. NSA should

(b)(3)-P.L. 86-36

(U//~~FOUO~~) NSA management digital network exploitation for the TRAILBLAZER Technology Demonstration Platform As a result, the NSA transformation effort may be developing a less capable long-term digital network exploitation solution that will take longer and cost significantly more to develop. NSA management should designate a team to assess the processing and exploitation requirements of the TRAILBLAZER Technology Demonstration Platform. Also, NSA management should provide the results of this assessment to the TRAILBLAZER Technology Demonstration Platform Milestone Decision Authority for use in making the Milestone B decision

(b)(3)-P.L. 86-36
(b)(5)

(U) Management Comments and Audit Response. The management comments form the Director, NSA/Chief, Central Security Service contained significant disagreements with the report findings. The Director stated that the world's most advanced cryptologic experts have assessed the situation and are confident in the approach NSA has taken. The Director nonconcurred with the recommendation The Director concurred or partially concurred with the recommendations to and include this assessment as part of the TRAILBLAZER Milestone B decision. The Program Executive Officer and TRAILBLAZER management will estimate the cost/schedule impacts after they receive estimates from the review team and will decide at that time whether to concur. Three of the four partial concurrences depend upon the Program Executive Officer and TRAILBLAZER management decision

U//~~FOUO~~

~~(U)~~ We revised the report findings and recommendations based on the Director's comments. However, we continue to believe We request that the NSA/Chief, Central Security Service provide We do not agree with management that it would be detrimental to the signals intelligence mission

(b)(3)-P.L. 86-36

(U) [redacted] We request that the Director, NSA/Chief, Central Security Service provide additional comments to this report by January 15, 2005. See the Findings section of the report for a discussion of management comments and audit responses, Appendix J for a detailed audit response to the management comments, and the management comments section of the report for the complete text of the comments

. THIS PAGE INTENTIONALLY LEFT BLANK (U)

Table of Contents (U)

~~(U//FOUO)~~

(b)(3)-P.L. 86-36

Executive Summary i

Background 1

Objectives 3

Findings

A. [redacted] 4
B. The NSA Transformation 27

Appendixes

A. Scope and Methodology 38
Prior Coverage 39
B. TRAILBLAZER 40
C. [redacted] 42
D. [redacted] 55
E. THINTHREAD 58
F. Technical Studies [redacted] 62
G. [redacted] 73
H. [redacted] 82
I. Glossary 88
J. Audit Response to Management Comments 95
K. Report Distribution 113

National Security Agency, Central Security Agency Comments 114

~~(U//FOUO)~~

THIS PAGE INTENTIONALLY LEFT BLANK (U)

(U) Background

(b)(3)-P.L. 86-36

~~(C)~~ **Hotline Allegations.** A letter to the Defense Hotline requested that the Inspector General of the Department of Defense audit and investigate the acquisition of the TRAILBLAZER and THINTHREAD programs. The complaint charged the NSA with fraud, waste, abuse, and a disregard for a solution to urgent security needs because the TRAILBLAZER Program [redacted] Also, the NSA ignored or modified the recommendations of two technology studies [redacted]

(U) National Security Agency Mission and Planning Guidance. The mission of the National Security Agency/Central Security Service (NSA/CSS) is to provide actionable Signals Intelligence to U.S. decisionmakers, from the national to the tactical level, while protecting the nation's vital information from attacks. The urgency of the NSA/ CSS mission is greater than ever since the September 11th attacks and the Global War on Terrorism.

(U//~~FOUO~~) In addition, defense planning guidance and the Director of Central Intelligence guidance stipulate the need for "a globally vigilant intelligence system that can provide early strategic warning of crisis and detect threats" that is supported by capabilities such as an "information superiority backbone."

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(S//SI)~~ **TRAILBLAZER** is a [redacted] major acquisition program, which started in FY 2000 and is scheduled for initial operating capability in FY 2009, to acquire an integrated system that is composed largely of commercial technology to provide the much-needed mission capability against the global network through a series of spiral developments. The TRAILBLAZER system will deliver hardware and software, system integration, and program integration services to include:

[redacted]

[redacted]

~~(S) THINTHREAD~~ [redacted]

(b)(1)
(b)(3)-P.L. 86-36

[redacted]

(b)(3)-P.L. 86-36

[redacted]

(b)(3)-P.L. 86-36

(U) Policy Governing [redacted] **Acquisition.** Guidance for [redacted] acquisition is provided in DoD Directive 5000.1, DoD Instruction 5000.2, and the Clinger Cohen Act of 1996. Specifically, these regulations provide the framework for the acquisition of major automated information systems.

(U) DoD Directive 5000.1, "The Defense Acquisition System," May 12, 2003. DoD Directive 5000.1 establishes the management process by which the DoD provides effective, affordable, and timely systems to the users. DoD Directive 5000.1 states that all acquisition professionals shall continuously develop and implement initiatives to streamline and improve the Defense Acquisition System. Specifically, this directive states that military decision authorities and program managers shall examine and, as appropriate, adopt innovative practices that reduce cycle time and cost and encourage teamwork.

(U) DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003. DoD Instruction 5000.2 establishes a management framework for translating mission requirements into stable, affordable, and well managed acquisition programs that include weapon systems and automated information systems, and highly sensitive classified, cryptologic, and intelligence projects and programs. Instruction 5000.2 states that, during the initial concept design, DoD Components should examine multiple concepts and material approaches to optimize the way that DoD provides these capabilities. That approach shall include robust analyses that consider affordability, technology maturity, and responsiveness.

(U) Clinger-Cohen (Information Technology Management Reform) Act of 1996. This act requires that heads of executive agencies develop and use best practices in the acquisition of information technology. The process of an executive agency shall include minimum criteria to be applied in considering whether to undertake a particular investment in information systems, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment and specific quantitative and qualitative criteria for comparing and prioritizing alternative information systems investment projects.

(U) NSA/CSS Circular 5000R, "Acquisition Management," January 9, 2001. The circular implements the principles of DoD Directive 5000.1 and DoD Regulation 5000.2-R within the NSA/CSS. It establishes basic objectives, policies, procedures, and responsibilities for acquisition management. The circular states that for acquisition management within the Defense Cryptologic Program, NSA should address interoperability between existing and future Service tactical Signals Intelligence systems, connectivity between tactical and national systems, consider applicable technology that may satisfy the requirement, and possible duplication of ongoing effort.

(U) Objectives

(U//~~FOUO~~) The overall audit objective was to evaluate [redacted] We did not review the management control program. See Appendix A for a discussion of the scope and methodology.

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

~~(TS//SI)~~

- ~~(U//FOUO)~~

(b)(3)-P.L. 86-36

- ~~(U//FOUO)~~

1. ~~(U//FOUO)~~

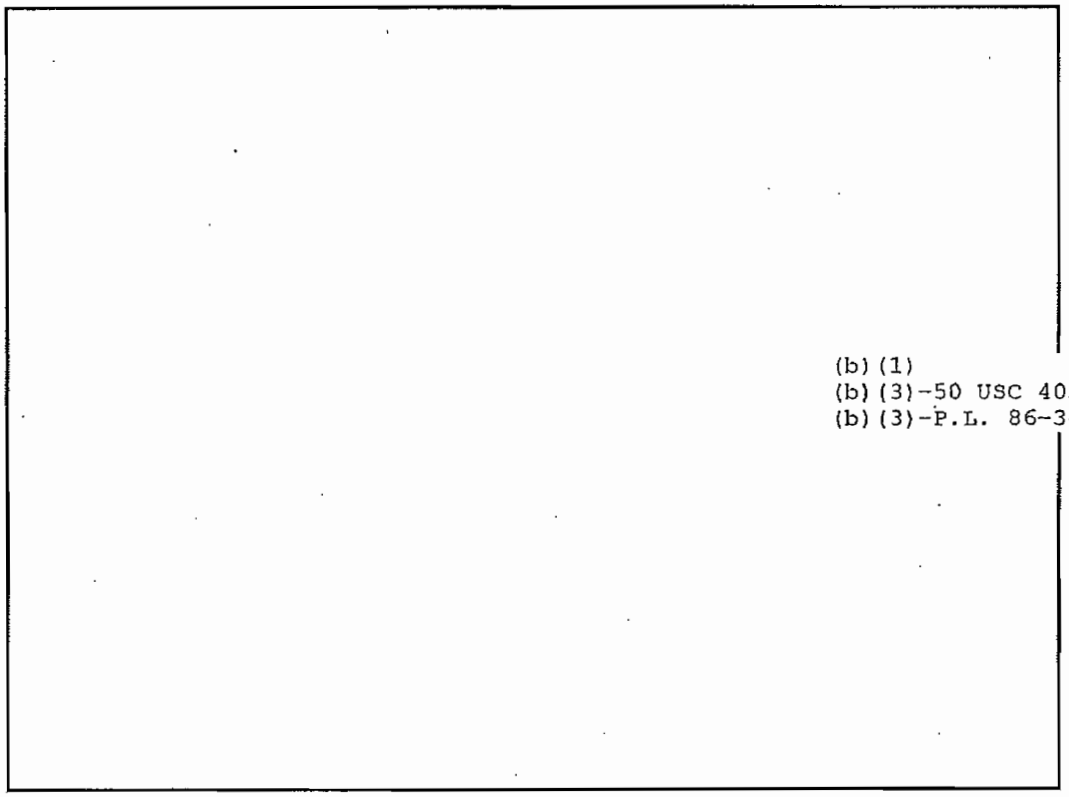
2. ~~(U//FOUO)~~

- ~~(TS//SI)~~

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

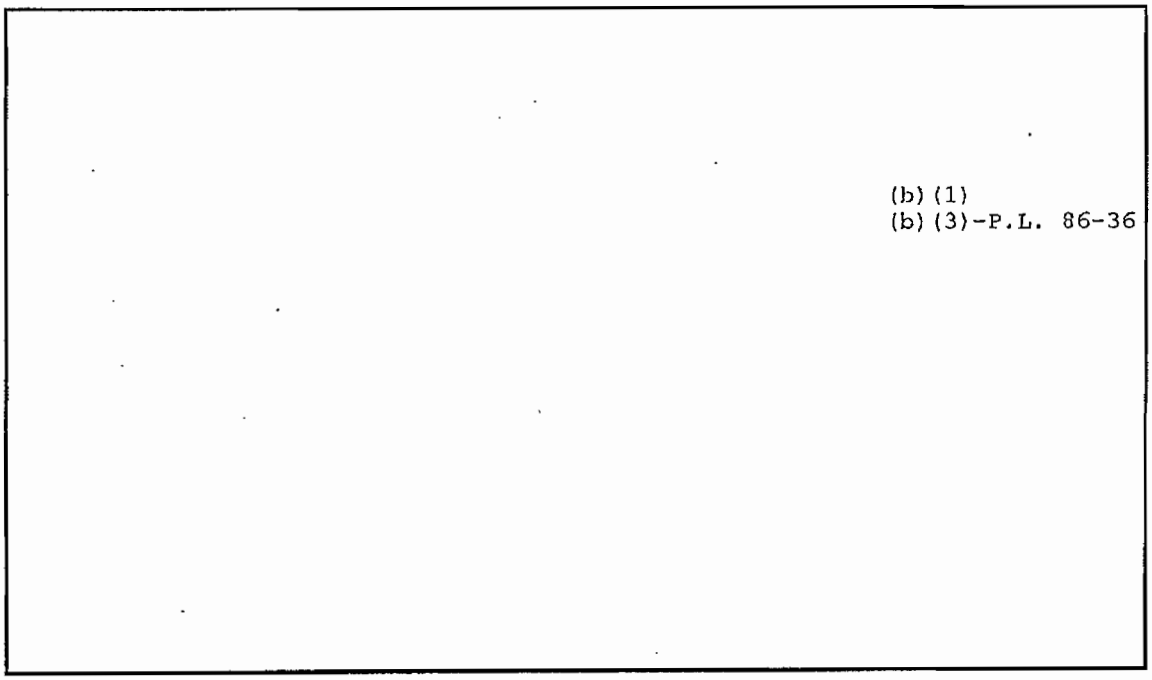
~~(C)~~

~~(TS//SI)~~



(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

THINTHREAD (U)



(b)(1)
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

(U//~~FOUO~~) TRAILBLAZER

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

~~(TS//SI)~~ The TRAILBLAZER an initiative that began in March 2001 at a cost of approximately focused on a set of efforts to demonstrate essential capabilities and establish an initial Operational Capability by June 2002 that would lead the transformation of NSA into an era of effective and efficient digital network exploitation. The immediate objective of the TRAILBLAZER

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

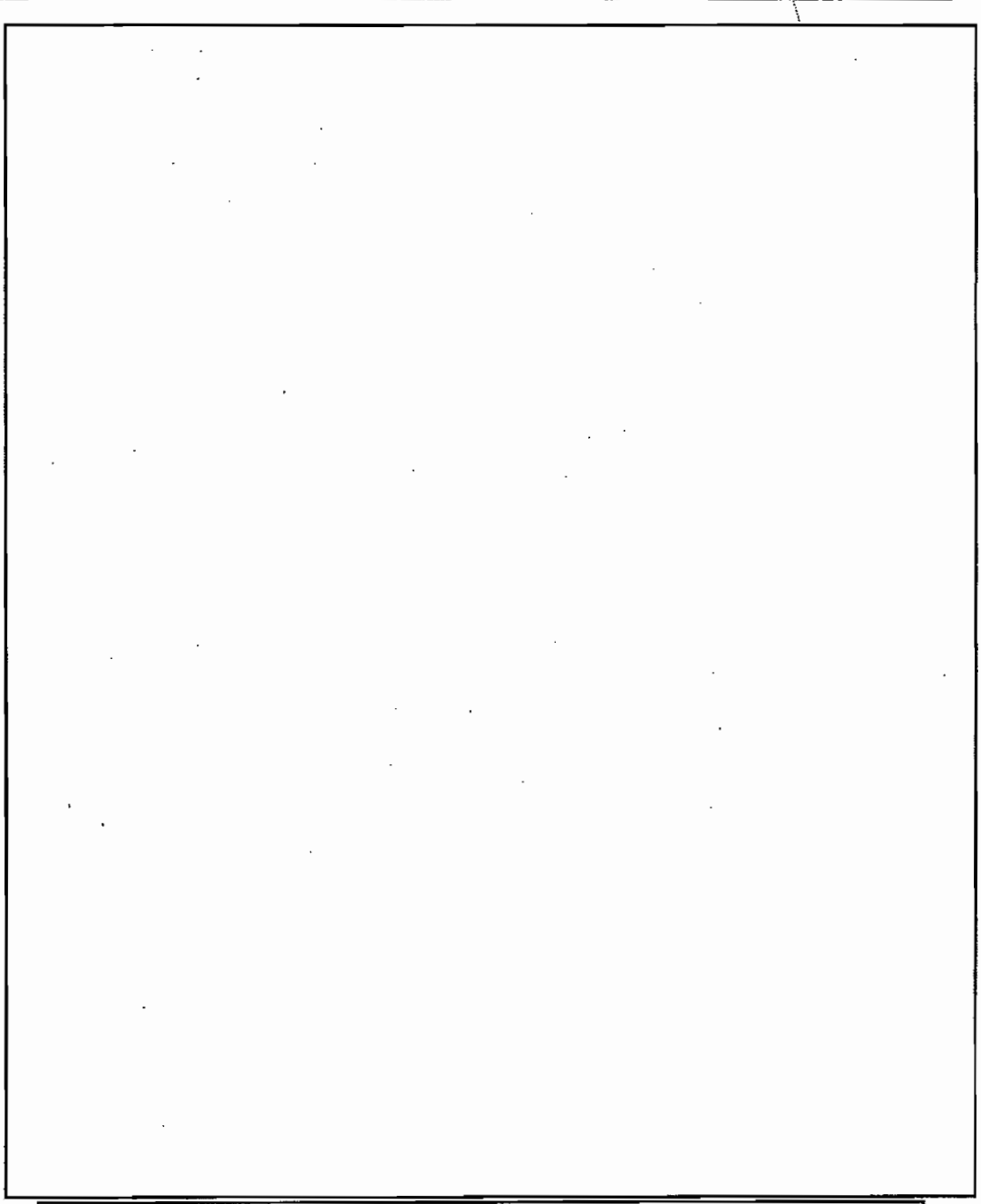
(b)(3)-P.L. 86-36

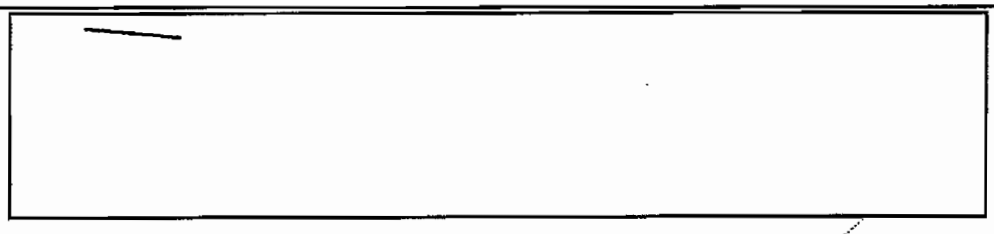
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(U//~~FOUO~~)

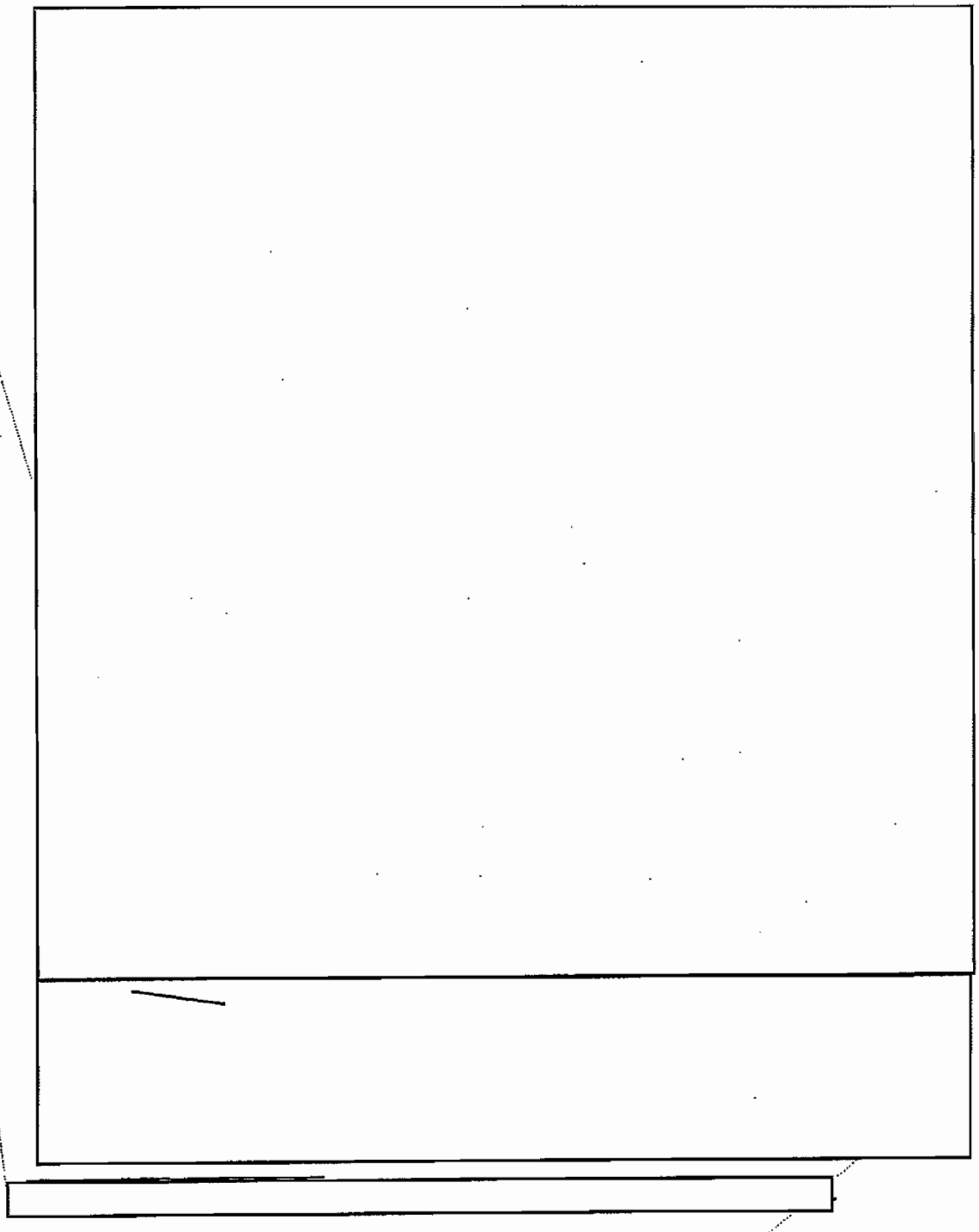




(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

(U//~~FOUO~~)



[redacted]

(U//~~FOUO~~) **Technical Review Studies.** A number of internal and external technical review studies were conducted to determine [redacted]

(b)(3)-P.L. 86-36

[redacted]

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

[redacted]

(U) Internal Reviews

[redacted]

~~(U//FOUO)~~ Results of the Technical Review. The technical review concluded [redacted]

(U//~~FOUO~~)

conclusions and recommended that:

- (U//~~FOUO~~)

(b)(3)-P.L. 86-36
(b)(5)

- ((U//~~FOUO~~)

(U) External Reviews

- (U//~~FOUO~~)

(b)(3)-P.L. 86-36

(U//~~FOUO~~)

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(U//FOUO)~~ **Recommendation:**

(b)(3)-P.L. 86-36
(b)(5)

- ~~(U//FOUO)~~

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36
(b)(5)

~~(S//SI//REL)~~ **Recommendation:**

~~(S//SI)~~ **NSA Modernization Studies.** The first "NSA Modernization Study," July 2001, was conducted by The National Technology Alliance, National Center for Applied Technology after a thorough review of ongoing activities within the TRAILBLAZER Program Management Office

(U) The NSA Modernization Study recommended that:

- (U//FOUO)

(b)(3)-P.L. 86-36
(b)(5)

- (U//FOUO)
- (U//FOUO)

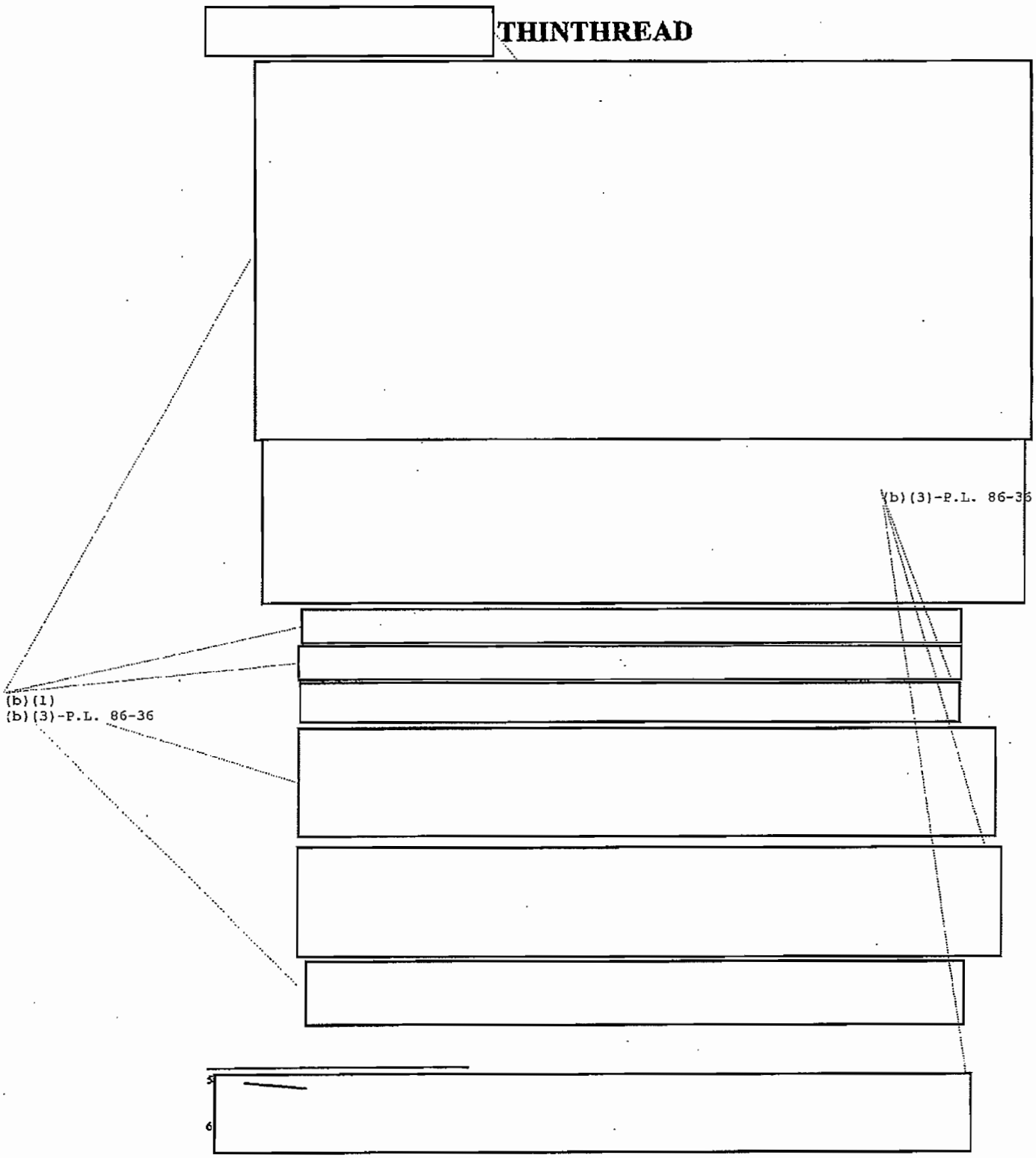
(U//FOUO) The National Center for Applied Technology issued a second report, a "quick-look" follow-on to the first report, in December 2001. The Chief, Signals Intelligence Programs invited the original study team to conduct a follow-on study to evaluate progress within the TRAILBLAZER Program Management Office. Despite noting some changes made in NSA management and the TRAILBLAZER Program's acquisition strategy that promised to address the conflicts and issues noted in the first report, the study team found that:

(b)(3)-P.L. 86-36

-
-

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36



5

6

(b)(3)-P.L. 86-36

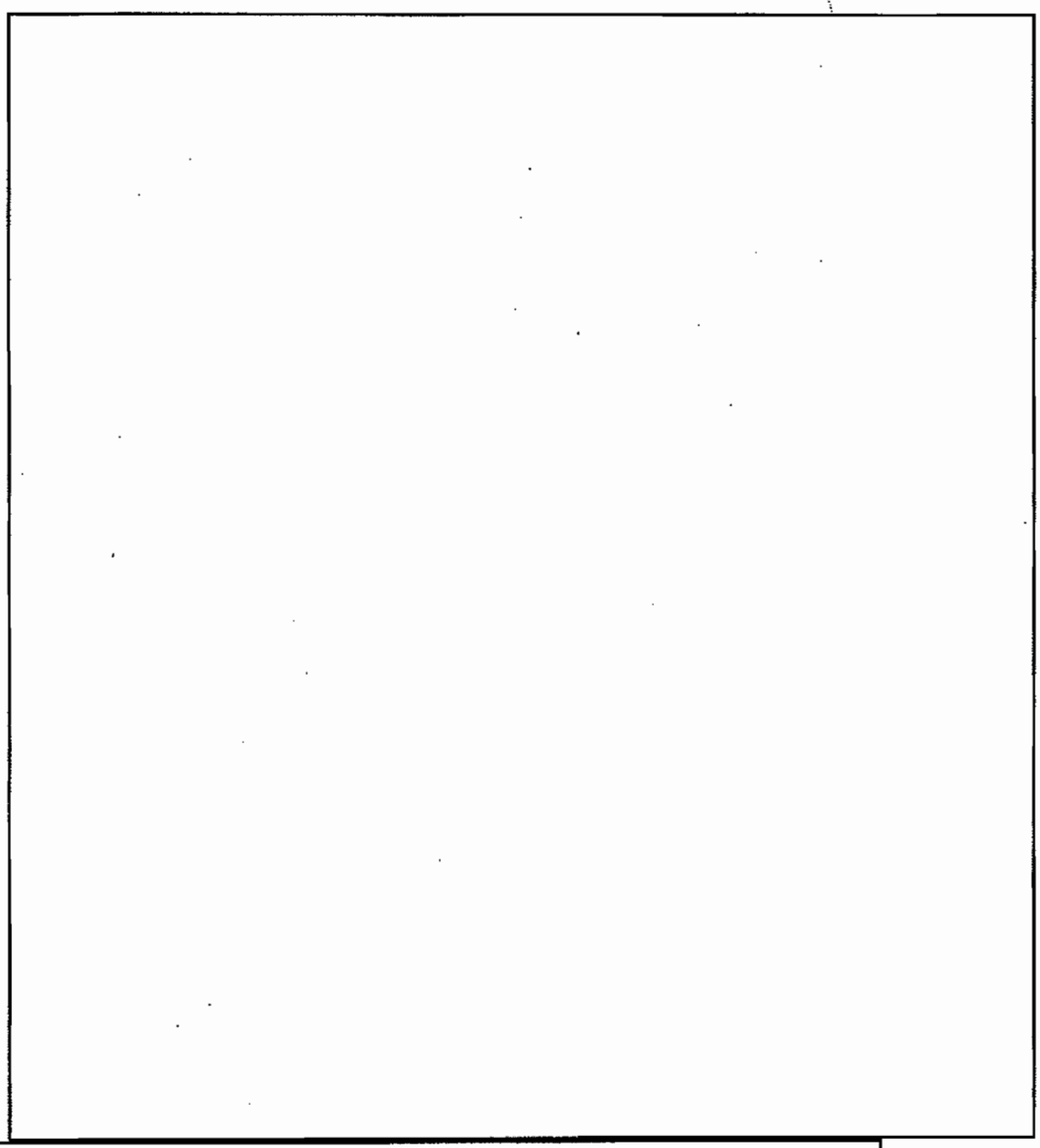
(b)(1)
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

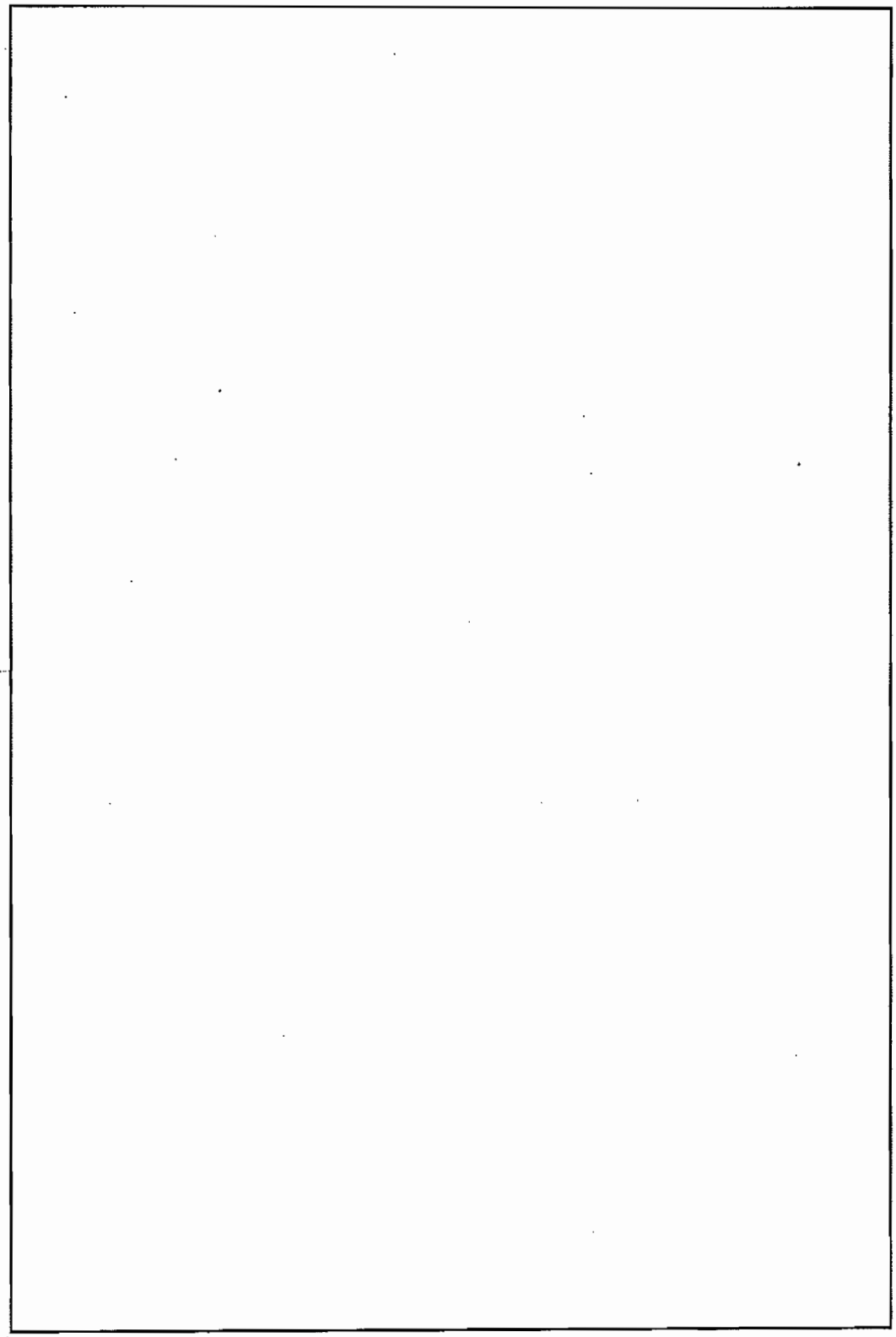
(b)(1)
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36



(b)(3)-P.L. 86-36



(b)(1)
(b)(3)-P.L. 86-36

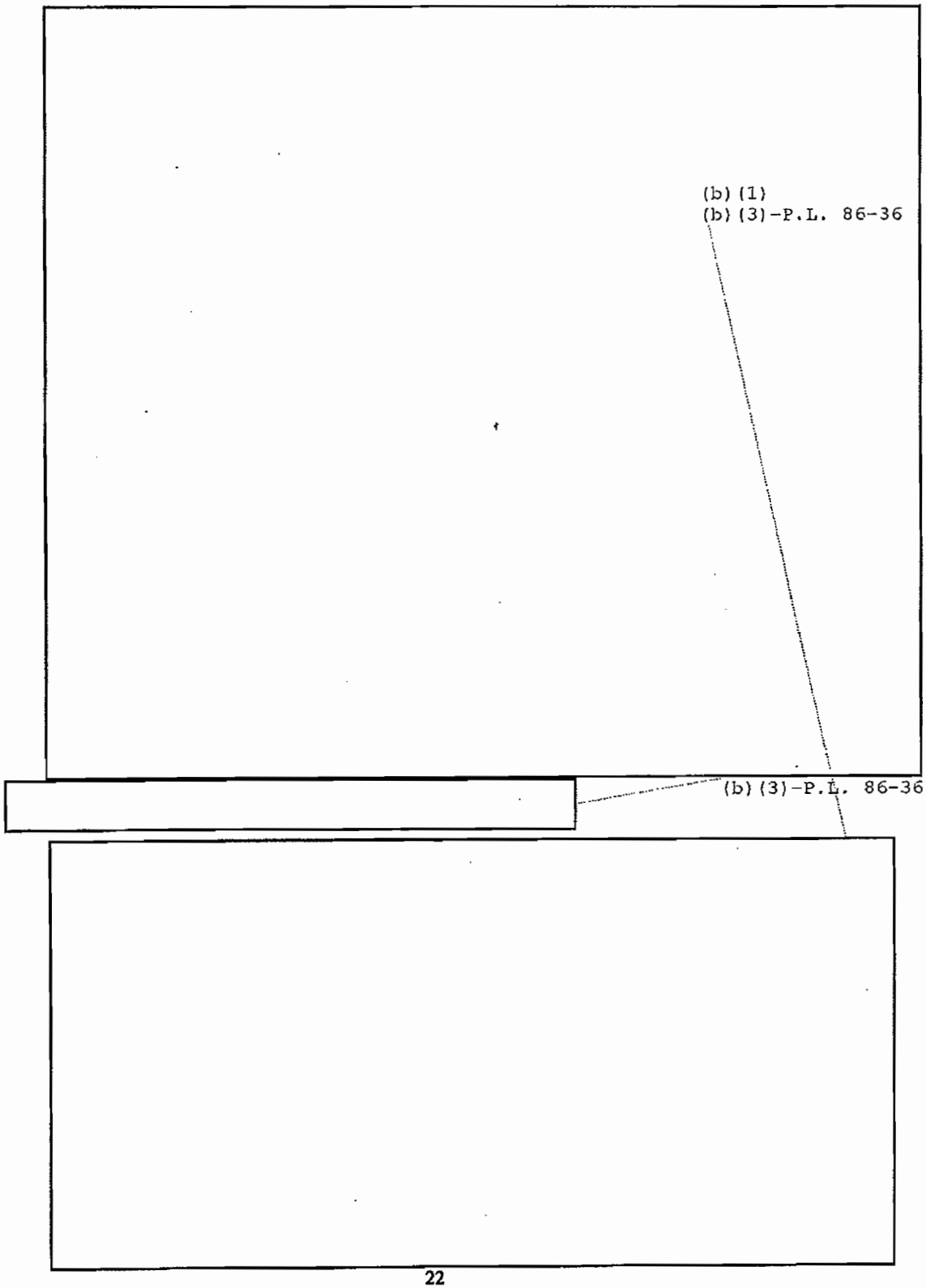
[redacted]

~~(TS//SI)~~ **Studies.** Prior to THINTHREAD deployment, the Technology Test and Evaluation Assessment, March 25, 2002, advised that the following [redacted] actions be addressed:

(b)(3)-P.L. 86-36
(b)(5)

- [redacted]
- (U) Generate user, system, technical, and programmatic documentation;
- [redacted]
- (U) Acquire sufficient numbers of appropriately skilled personnel to develop documentation; [redacted]

[redacted]


(b)(1)
(b)(3)-P.L. 86-36
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

(U) Summary

(U) Management Comments on the Finding and Audit Response

(U//~~FOUO~~) Management Comments. The NSA management stated that the draft report did not include significant information or included wrong or misleading information. The complete list of management comments is in the Management Comments section of this report.

(U//~~FOUO~~) Audit Response. We obtained, reviewed, and analyzed many documents and we interviewed several NSA and contractor personnel to form the conclusions in this report. We included all information relevant to support the report findings and recommendations. Many people we interviewed asked not to be identified for fear of management reprisal. We gathered information from many sources to support the finding. Paragraphs frequently contain information from several sources to reinforce conclusions. Based on management comments, we made various editorial changes to the draft report. See Appendix J for a completed audit response to each management comment.

(U) Recommendations, Management Comments, and Audit Response

[redacted]

(U) A. We recommend that the Director, National Security Agency/Chief, Central Security Service:

(b)(1)
(b)(3)-P.L. 86-36
(b)(5)

[redacted]

~~(S//SI)~~ Management Comments. The Director, National Security Agency/Chief, Central Security Service nonconcurred and stated that the systems engineering

[redacted]

(b)(1)
(b)(3)-P.L. 86-36
(b)(5)

[redacted]

~~(S//SI)~~ **Management Comments.** The Director, National Security Agency/Chief, Central Security Service nonconcurred because the National Security Agency management believes that [redacted]

Management did not understand what was meant by [redacted]

~~(S//SI)~~ **Audit Response.** Based on management comments, we revised the recommendation to explain more clearly the meaning [redacted]

~~(TS//SI)~~ that the National Security Agency management reconsider its position

3. (S)

(U//~~FOUO~~) Management Comments. The Director, National Security Agency/Chief, Central Security Service concurred. In April 2003, NSA provided

(U//~~FOUO~~) **~~(C)~~ Audit Response.** Management comments were partially responsive. Although the National Security Agency

(b) (3)-P.L. 86-36

B. The NSA Transformation (U)

(U//~~FOUO~~)

(b)(3)-P.L. 86-36

[redacted]

(U) Congressional Concerns on Digital Network Exploitation

(U) The National Defense Authorization Act for FY 2002 stated that:

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(TS//SI)~~ The NSA has clearly made great strides in seeking to transform itself in many areas. However, the NSA appears to have made only modest progress in the area most important to its future: acquiring the technical ability to operate effectively against the emerging global network. The NSA has long known that

[redacted]

(U) TRAILBLAZER

~~(S//SI)~~ On March 24, 2000, the Director, NSA signed the TRAILBLAZER 1 charter to create a new Signals Intelligence enterprise to exploit the global network. TRAILBLAZER 1, with an estimated development cost of approximately [redacted] was to respond to the opportunities and challenges provided by emerging technologies to design new operational practices for on-time delivery of products and services in the manner that best met customer

~~(S//SI)~~ needs--unrestrained by past practices or past technologies. TRAILBLAZER 1 had the following key responsibilities

- (U//~~FOUO~~) Ensure the execution of a new NSA program transforming the U.S. Cryptologic System exploitation of the global network. Map detailed digital network exploitation mission requirements to a cryptologic architecture and implement them; and
- (U//~~FOUO~~) Act as the catalyst for transforming customer interaction and operational practices. Begin the retooling of NSA programmatically, technologically, and culturally to provide mission services and capabilities that are responsive to the emerging technology and customer needs.

(U) [redacted] TRAILBLAZER

(b) (1)
(b) (3)-50 USC 403
(b) (3)-P.L. 86-36

[redacted]

[redacted]

- ~~(U//FOUO)~~

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(U) NSA Modernization Studies

~~(C)~~ **First NSA Modernization Study.** The House Permanent Select Committee on Intelligence directed the first "NSA Modernization Study," July 2001, which was conducted by The National Technology Alliance, National Center for Applied Technology. After a thorough review of ongoing activities within the TRAILBLAZER Program Management Office and interviews with key program personnel, the National Center for Applied Technology team observed that the TRAILBLAZER was poorly executed and had an overly expensive
The NSA Modernization Study recommended that:

~~(S//SI)~~ **Second NSA Modernization Study.** A second National Center for Applied Technology report, a "quick-look" follow-on report, was completed in December 2001. The Chief, Signals Intelligence Programs invited the original study team to conduct a follow-on study to evaluate progress within the TRAILBLAZER Program Management Office. Despite noting some changes made in NSA management and the TRAILBLAZER Program acquisition strategy that promised to address the conflicts and issues noted in the first report, the study team found that:

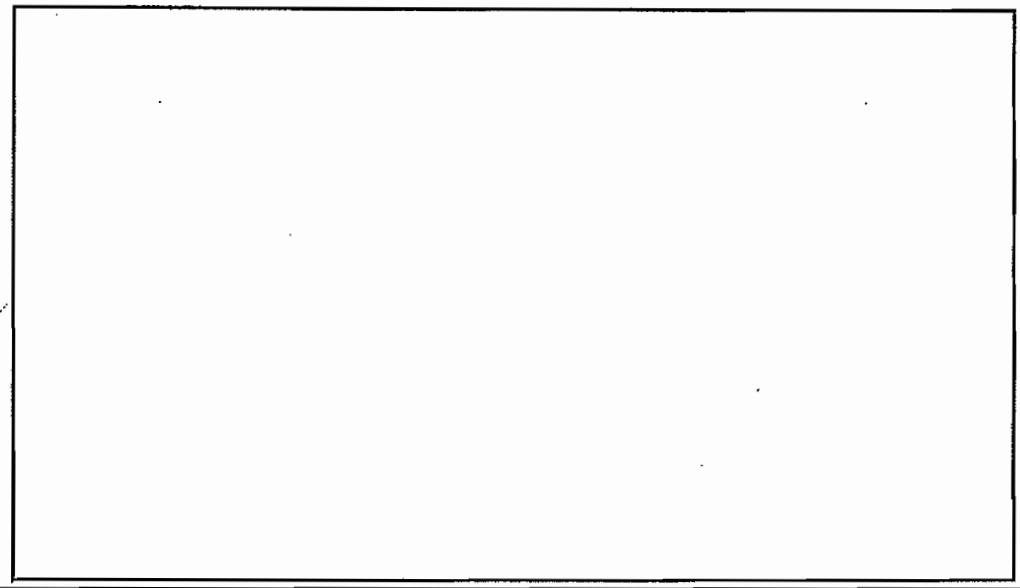
(b)(3)-P.L. 86-36

(U) NSA Technical Reviews

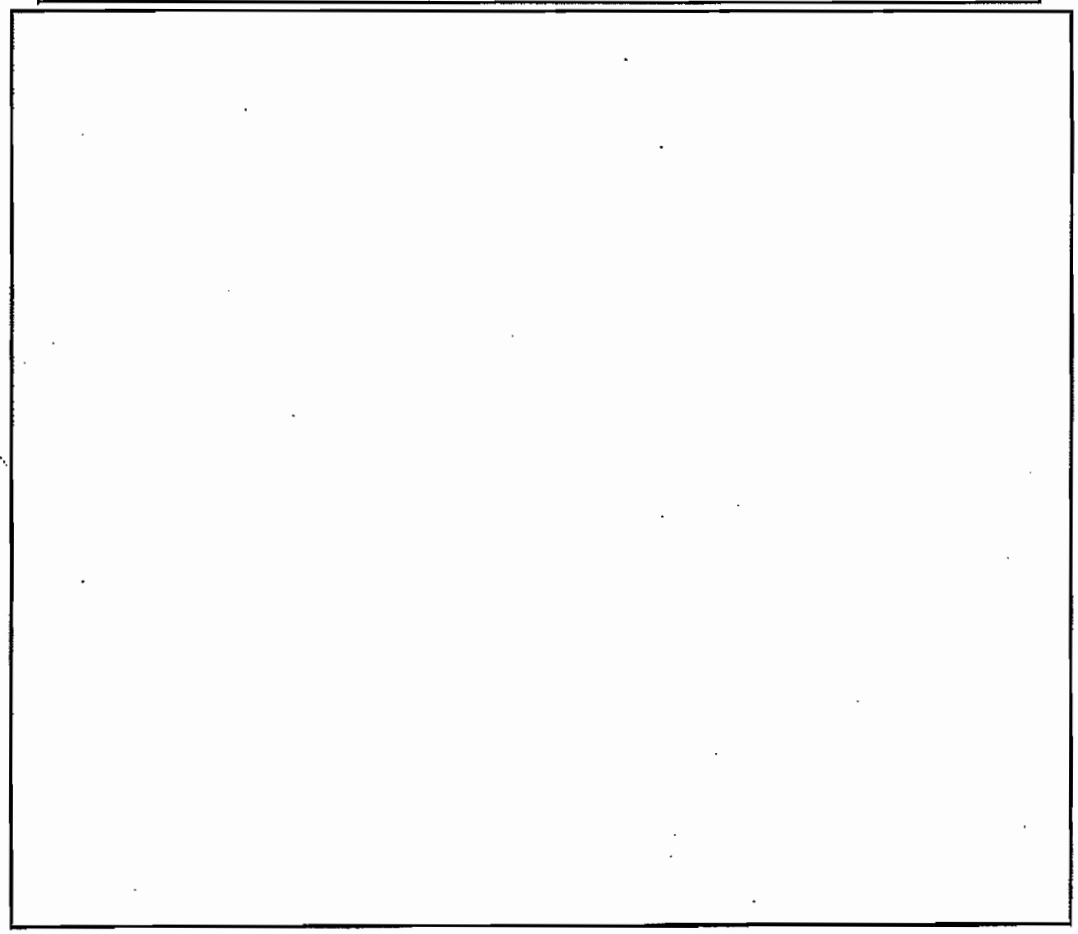
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(S//SI)~~ During FY 2001, NSA initial and followup internal technical reviews

(U) TRAILBLAZER Acquisition



(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

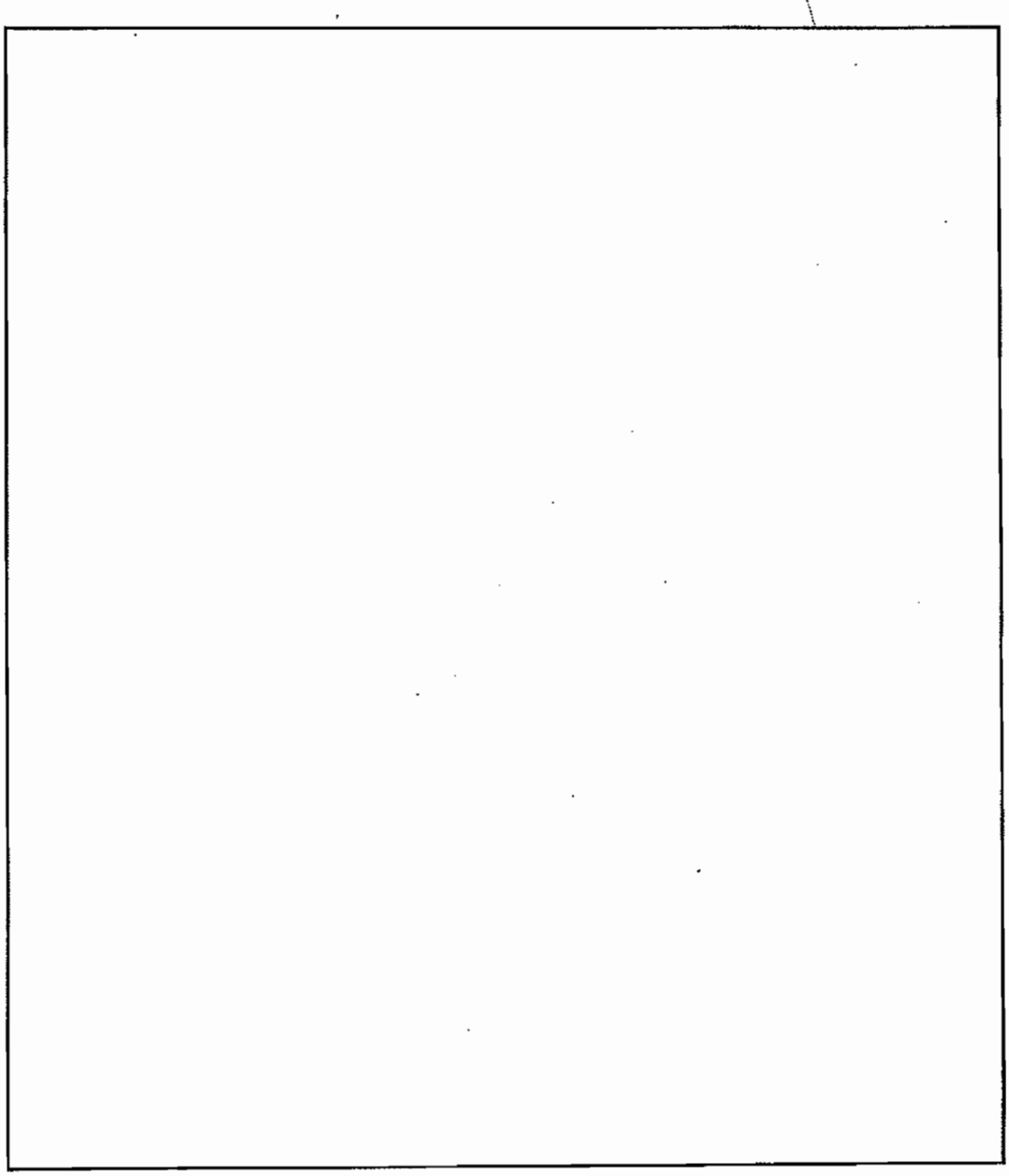


(b)(3)-P.L. 86-36

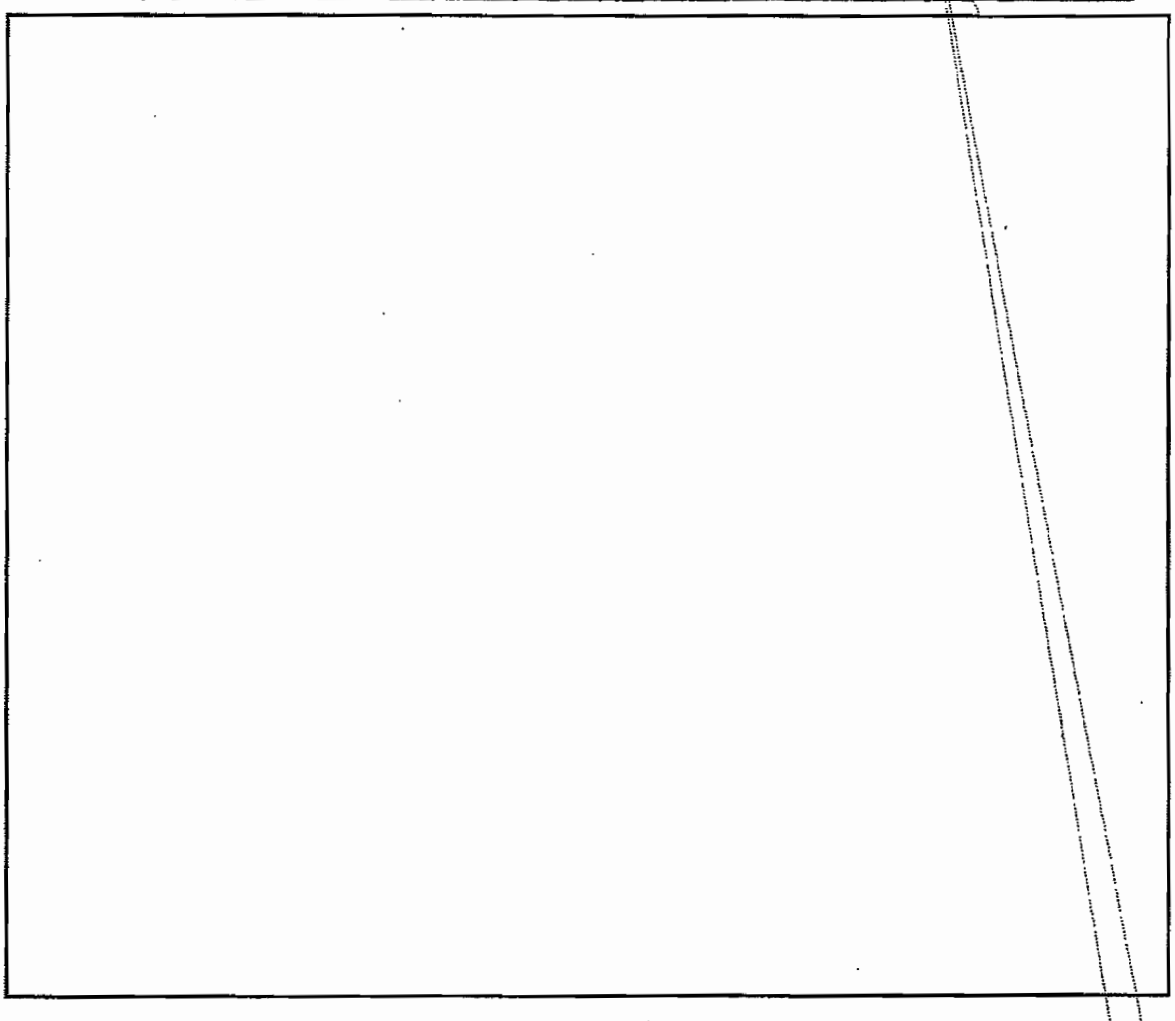
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

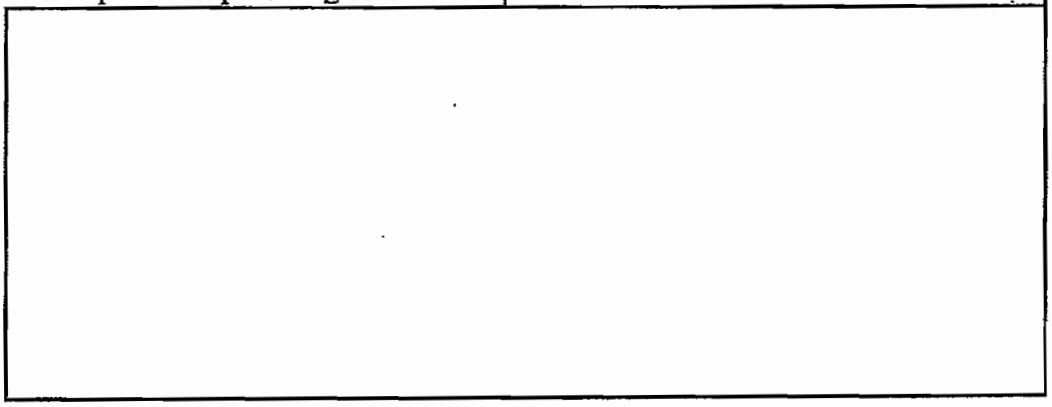


(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



(U) Conclusion

~~(S//SI)~~ TRAILBLAZER was developed to create a new Signals Intelligence enterprise to exploit the global network



[redacted]

(U) Summary of Management Comments on the Audit Finding and Audit Response

(U//~~FOUO~~) Management Comments. NSA management referred to several statements in the report that did not include all referenced documents and that some paragraphs contained wrong or misleading information. The complete list of management comments is located in the Management Comments section of this report.

(U//~~FOUO~~) Audit Response. We obtained, reviewed, and analyzed many documents to form the basis for the conclusions in this report. We also interviewed several NSA and contractor personnel, many of whom asked not to be identified for fear of management reprisal. We gathered information from many sources to support the finding. Paragraphs frequently contain information from several sources to reinforce conclusions. See Appendix J for a complete audit response to each management comment.

(U) Recommendations, Management Comments, and Audit Response

(b)(1)
(b)(3)-P.L. 86-36
(b)(5)

(~~C~~) Revised Recommendation. As a result of management comments, we revised Recommendations B.1 and B.3 to clarify the intended use of [redacted]

1. (U//~~FOUO~~) We recommend that the Director, National Security Agency/Chief, Central Security Service:

- **(~~C~~) Designate a team to assess** [redacted]

(U//~~FOUO~~) Management Comments. The Director, National Security Agency/Chief, Central Security Service partially concurred with the intent of the recommendation but was waiting for the results of a cost and schedule impact study before fully concurring. The Program Executive Office is establishing an

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(U//~~FOUO~~) independent review team to complete the study before Milestone B, scheduled for December 2004, because the study will have an effect on both the cost and schedule for Milestone B.

[redacted]

~~(C)~~ **Audit Response.** Based on management comments, we revised this recommendation. The Director, National Security Agency/Chief, Central Security Service comments were responsive and the proposed actions meet the intent of the recommendation. The immediate actions taken to designate an independent review team to perform the assessment are commendable. Milestone B has slipped to February 2005 at the earliest; therefore, NSA will have time to complete the assessment [redacted] TRAILBLAZER. We request that the Director, National Security Agency/Chief, Central Security Service provide a risk mitigation plan for cost and schedule requirements and provide comments on a final concurrence.

2. (U//~~FOUO~~) Provide the results of the external assessment to the TRAILBLAZER Technology Demonstration Platform Milestone Decision Authority for use in making the Milestone B decision.

(U//~~FOUO~~) Management Comments. The Director, National Security Agency/Chief, Central Security Service concurred. The completion of the independent assessment is currently scheduled for December 2004.

(U//~~FOUO~~) Audit Response. Although the Director, National Security Agency/Chief, Central Security Service concurred, the concurrence is based on completing the assessment requested in Recommendation B.1. We request that the National Security Agency management provide additional comments in response to the final report identifying NSA plans to eliminate the cost and schedule risks for completing the assessment.

[redacted]

(b)(1)
(b)(3)-P.L. 86-36

(U//~~FOUO~~) Management Comments. The Director, National Security Agency/Chief, Central Security Service concurred, and stated that the assessment required in Recommendation B.1 will be included in the [redacted] for Milestone B, scheduled for December 2004.

~~(S//SI)~~ **Audit Response.** Although the Director, National Security Agency/Chief, Central Security Service concurred, the concurrence is based on completing the assessment requested in Recommendation B.1. Based on management comments to Recommendation B.2., this recommendation was revised [redacted]

~~(S//SI)~~ [redacted] We request additional comments in response to the final report identifying NSA plans to eliminate the cost and schedule risks for completing the assessment.

(b)(1)
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

Appendix A. Scope and Methodology (U)

(U//~~FOUO~~) We reviewed documentation dating from November 2000 through October 2003 including background information, mission and operational need statements, concepts and operational requirements, and contracting and budget documents. Also, we conducted interviews with program managers, analysts, and technicians responsible for the acquisition

(U) We performed this audit from April 2003 through May 2004 in accordance with generally accepted government auditing standards.

(U//~~FOUO~~) Limitation to Scope. Because our objective was limited to evaluating a Defense Hotline allegation relating to the acquisition of the TRAILBLAZER and THINTHREAD programs, we did not review the management control program.

(U) Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

(U//~~FOUO~~) Use of Technical Assistance. Audit Follow-up and Technical Support Personnel assisted us during the audit. The Technical Assessment Division assisted in the analysis of NSA acquisition

(U) General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the Infrastructure Inefficiencies and Information Technology Investments high-risk areas.

(U) Prior Coverage

(U//~~FOUO~~) During the last 5 years, the Inspector General of the NSA issued one report on TRAILBLAZER that discussed improperly based contract cost increases, non-conformance in the management of the Statement of Work, and excessive labor rates for contractor personnel. No prior coverage has been conducted on the NSA THINTHREAD Program during the last 5 years.

(U) Inspector General, NSA

(U//~~FOUO~~) Report No. ST-03-0014, "TRAILBLAZER 1/SIGINT Programs Systems Engineering and Technical Assistance Contract," September 30, 2004

(b) (1)
(b) (3)-50 USC 403
(b) (3)-P.L. 86-36

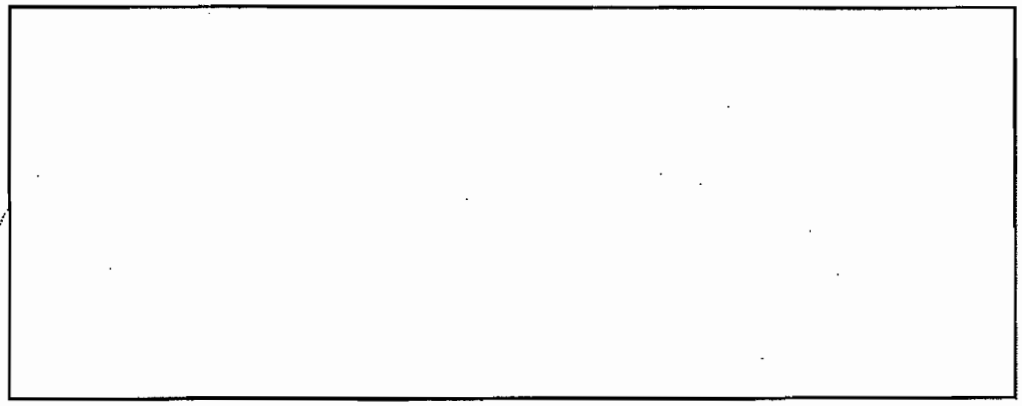
Appendix B. TRAILBLAZER (U)

(U) Objectives of TRAILBLAZER and the Technical Demonstration Platform

(b) (3)-P.L. 86-36

- (U//~~FOUO~~) Common standards and interfaces throughout the NSA Reference Model.

~~(S//SI)~~ Specifically, the TRAILBLAZER framework must leverage the best commercial technology and practices. It also must be standards based to



(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

Appendix C.

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

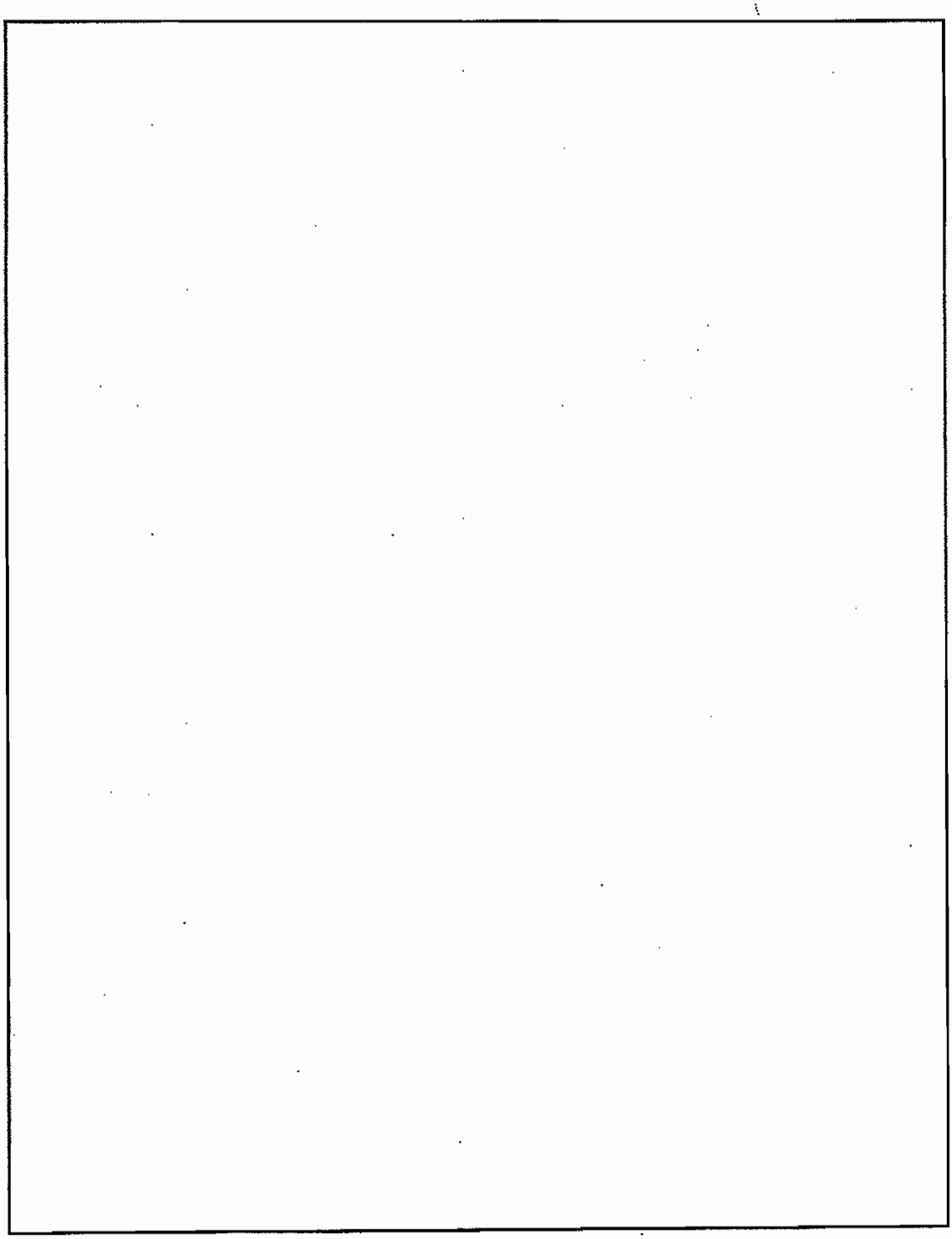
(U//~~FOUO~~)

(b)(3)-P.L. 86-36

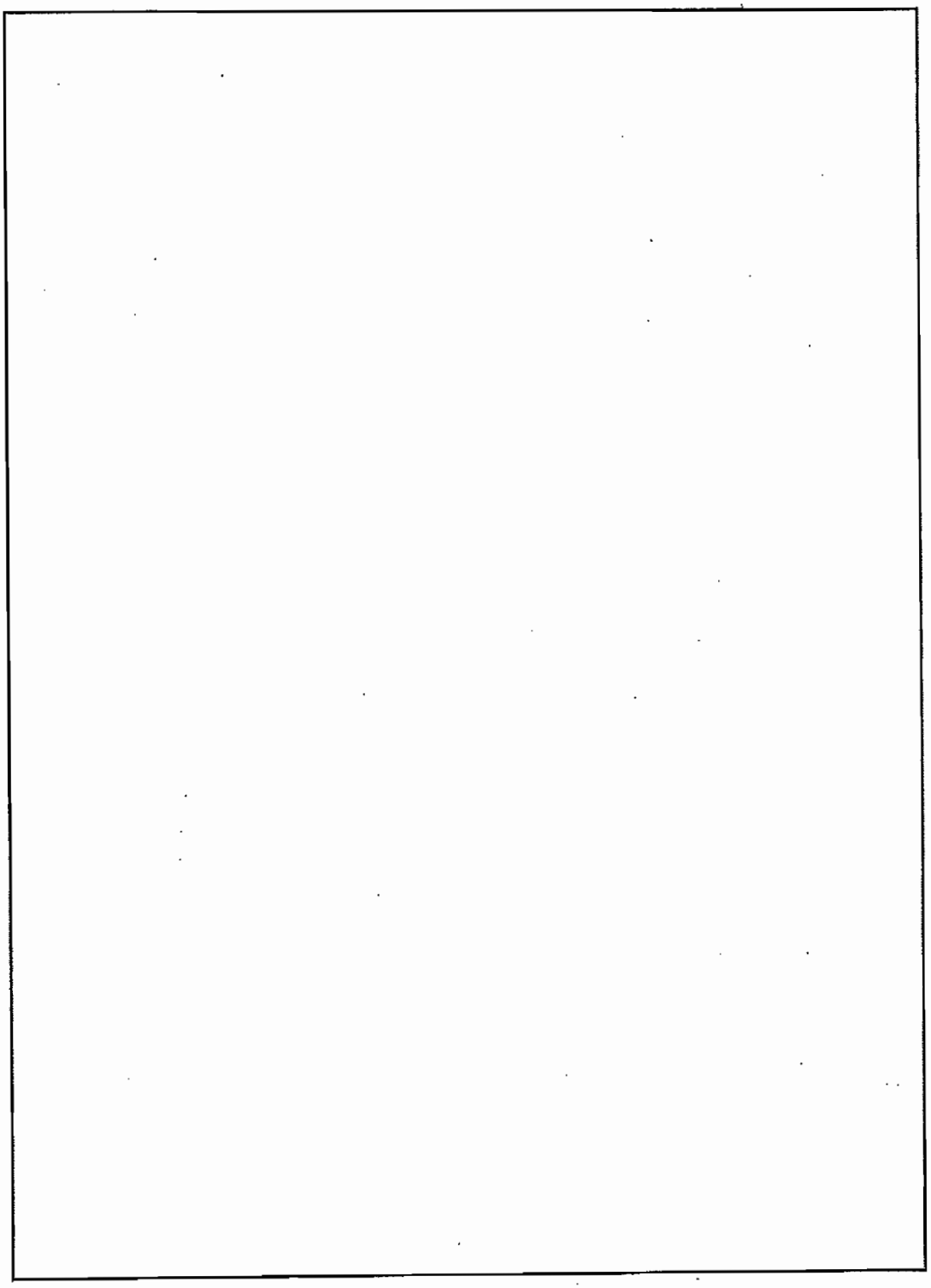
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

[1] (U//FOUO)

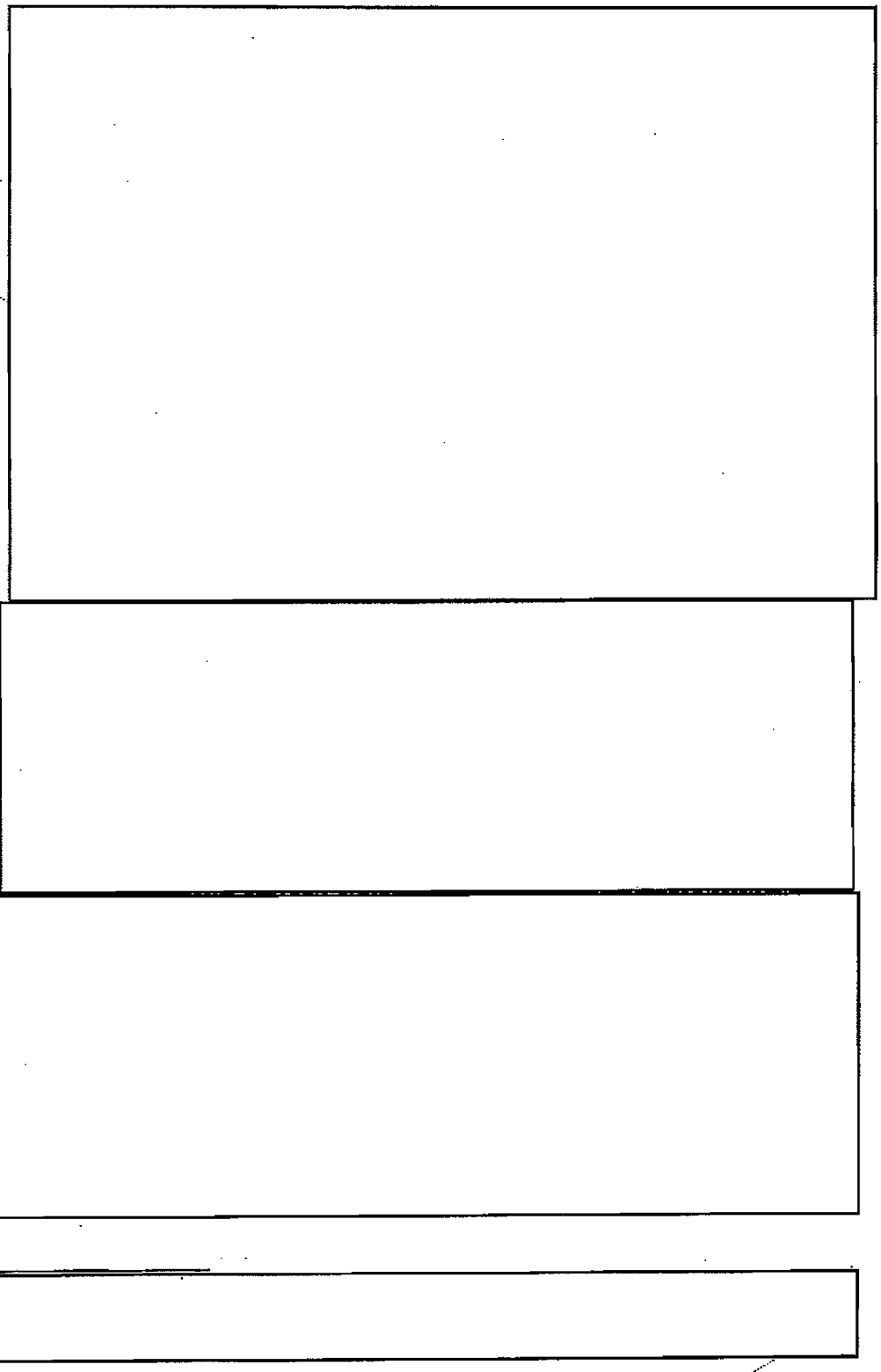
(b) (1)
(b) (3)-50 USC 403
(b) (3)-P.L. 86-36



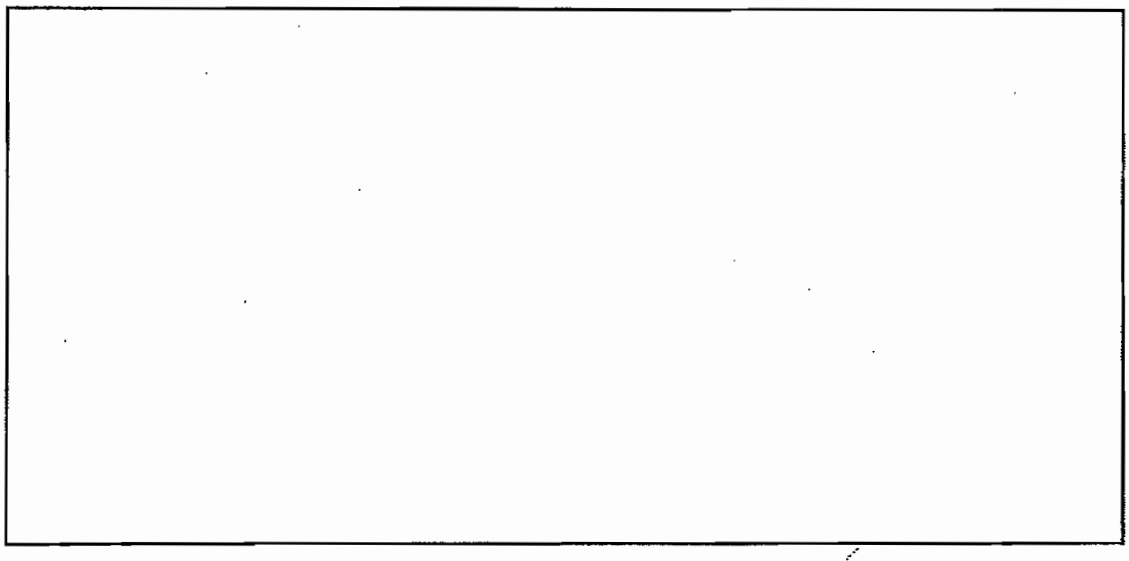
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



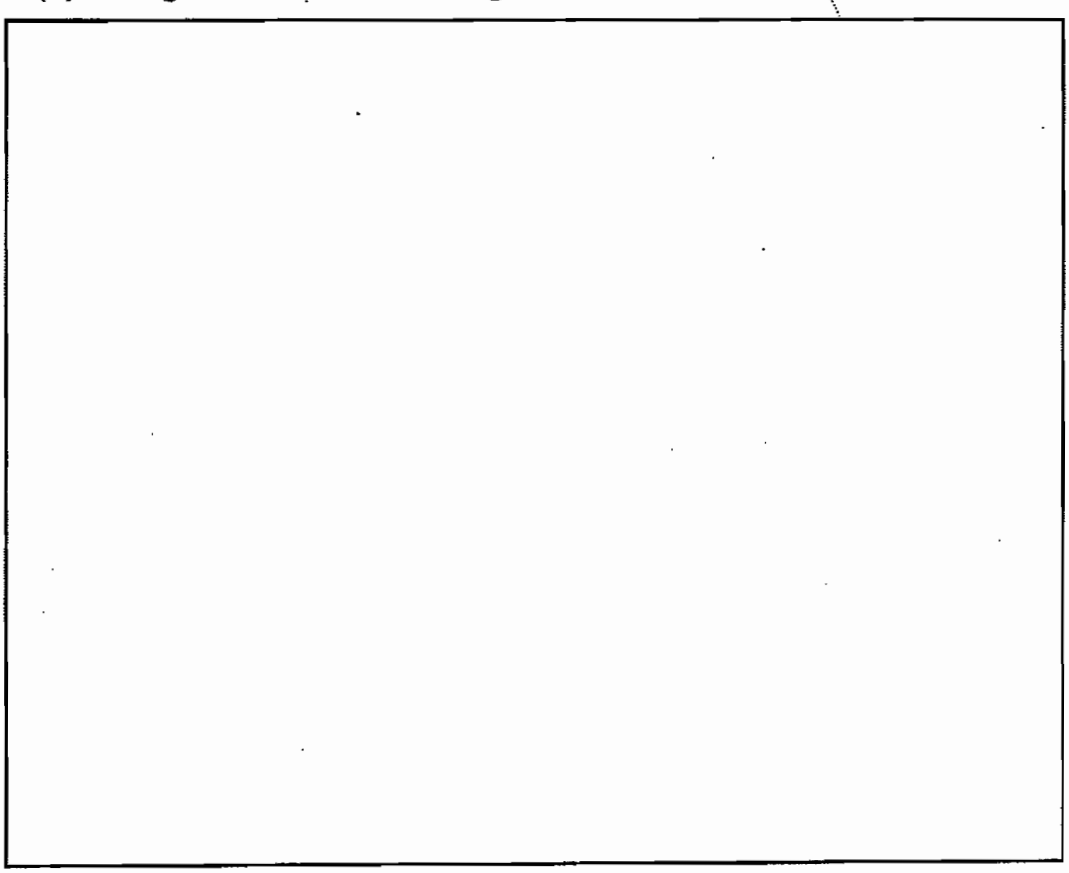
(b)(3)-P.L. 86-36



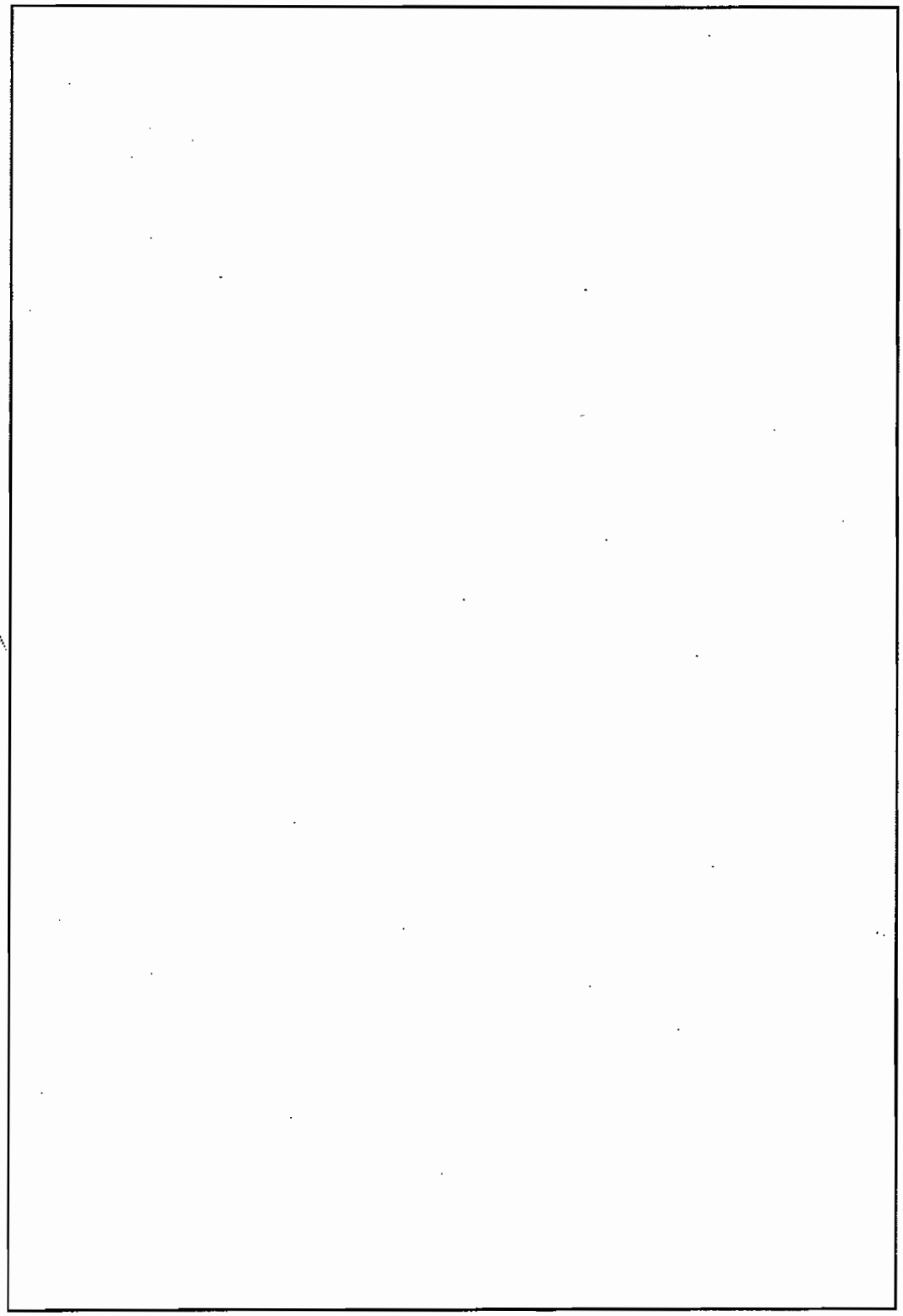
(U) Technical Recommendations

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(U) The Tiger Team made the following recommendation.



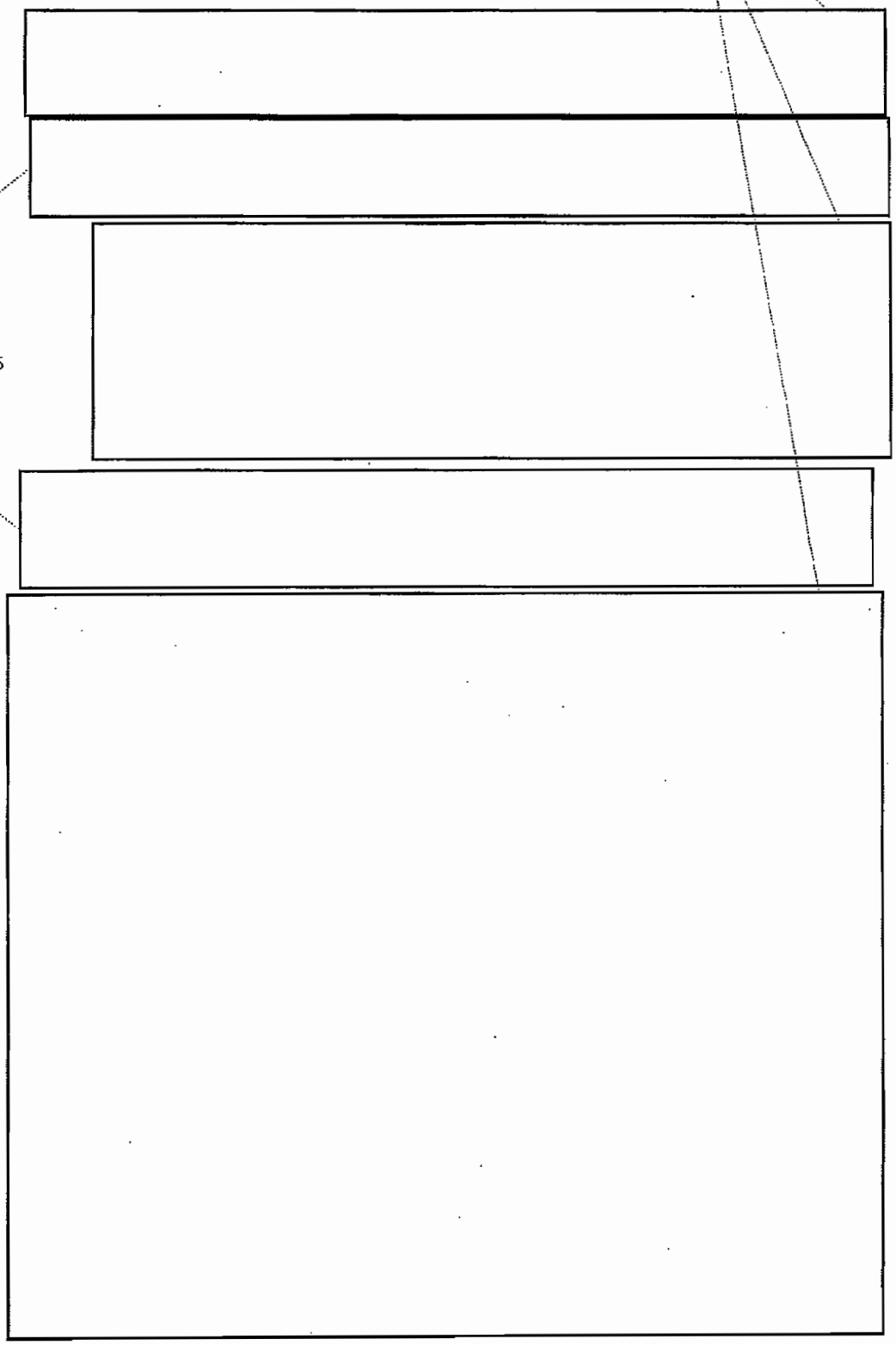
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

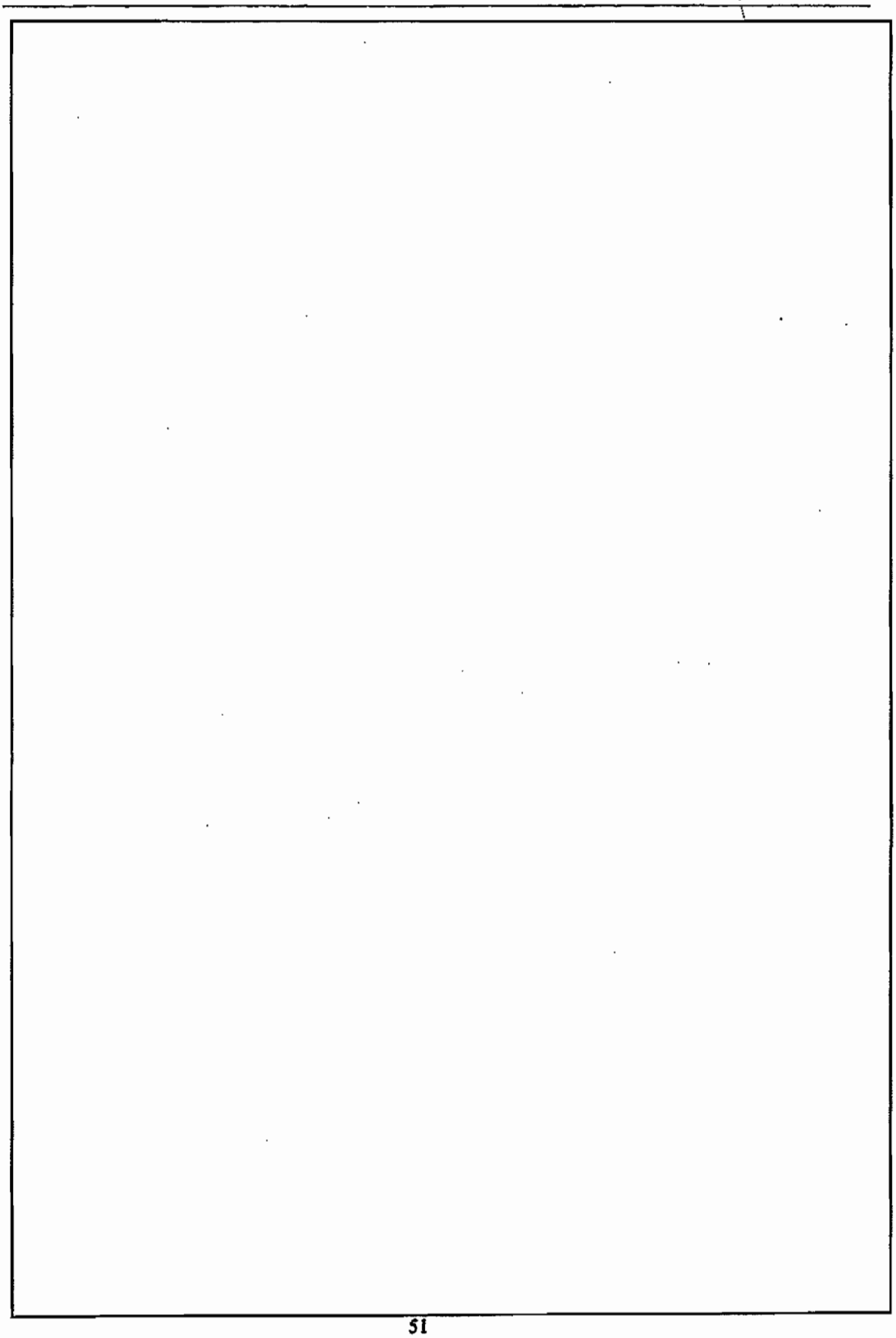
(b)(3)-P.L. 86-36

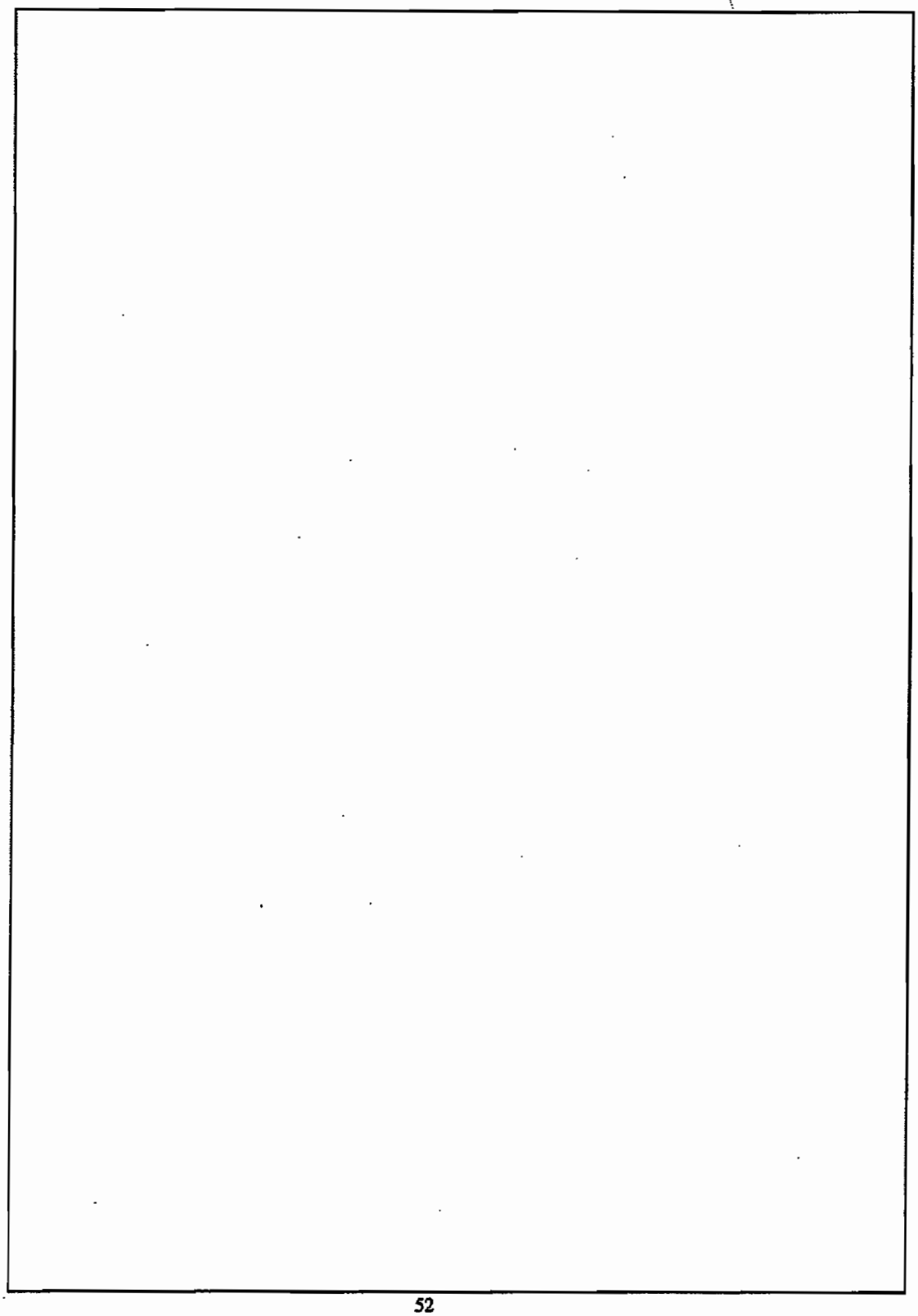


(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

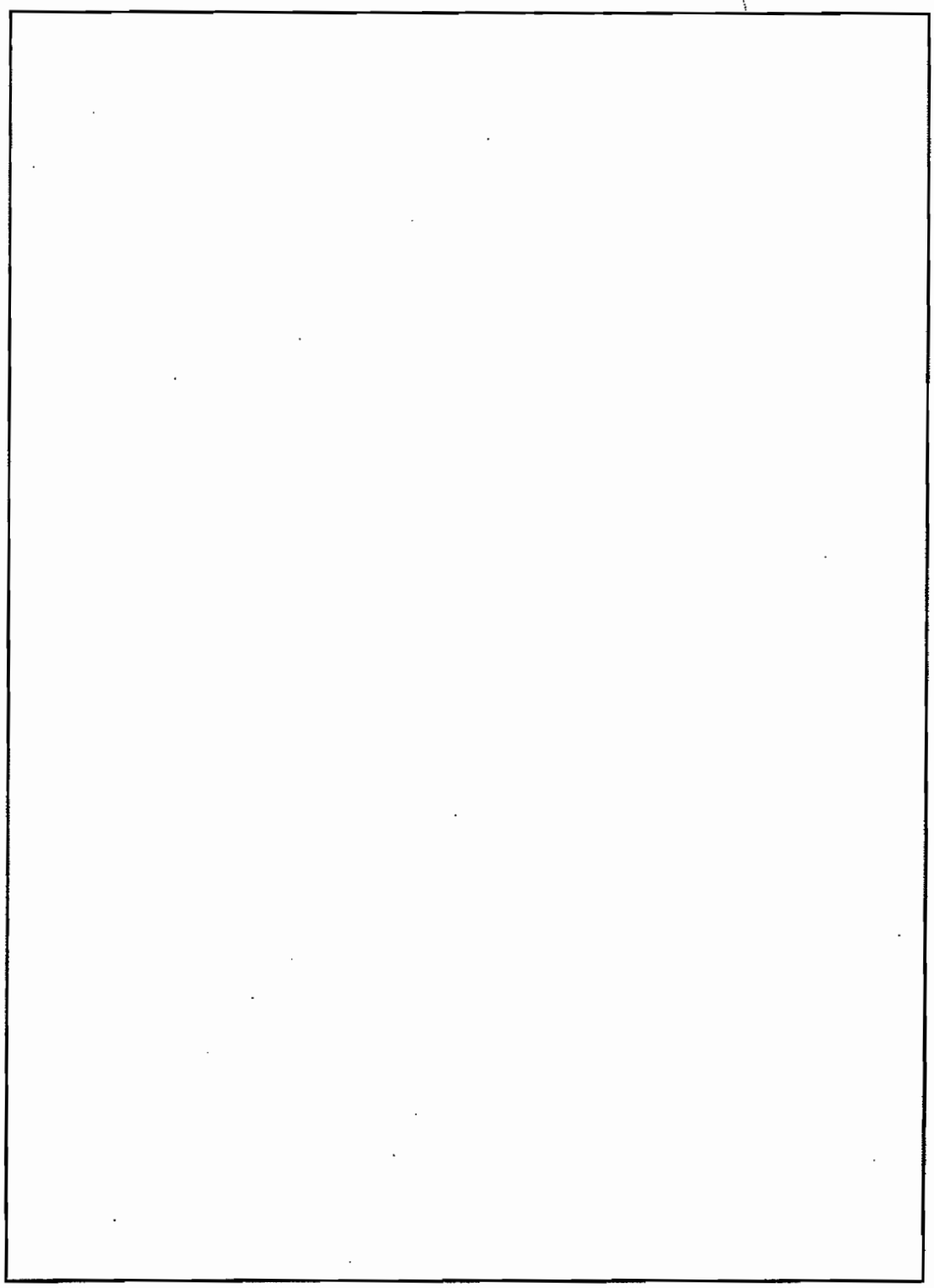
(b)(3)-P.L. 86-36

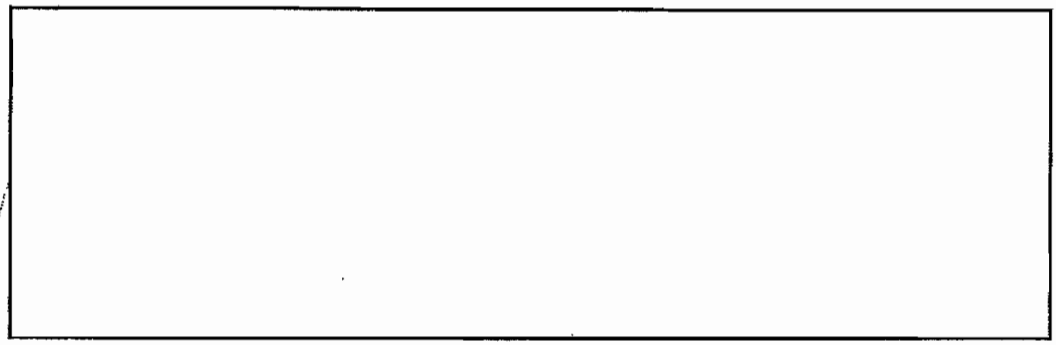
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36





(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36





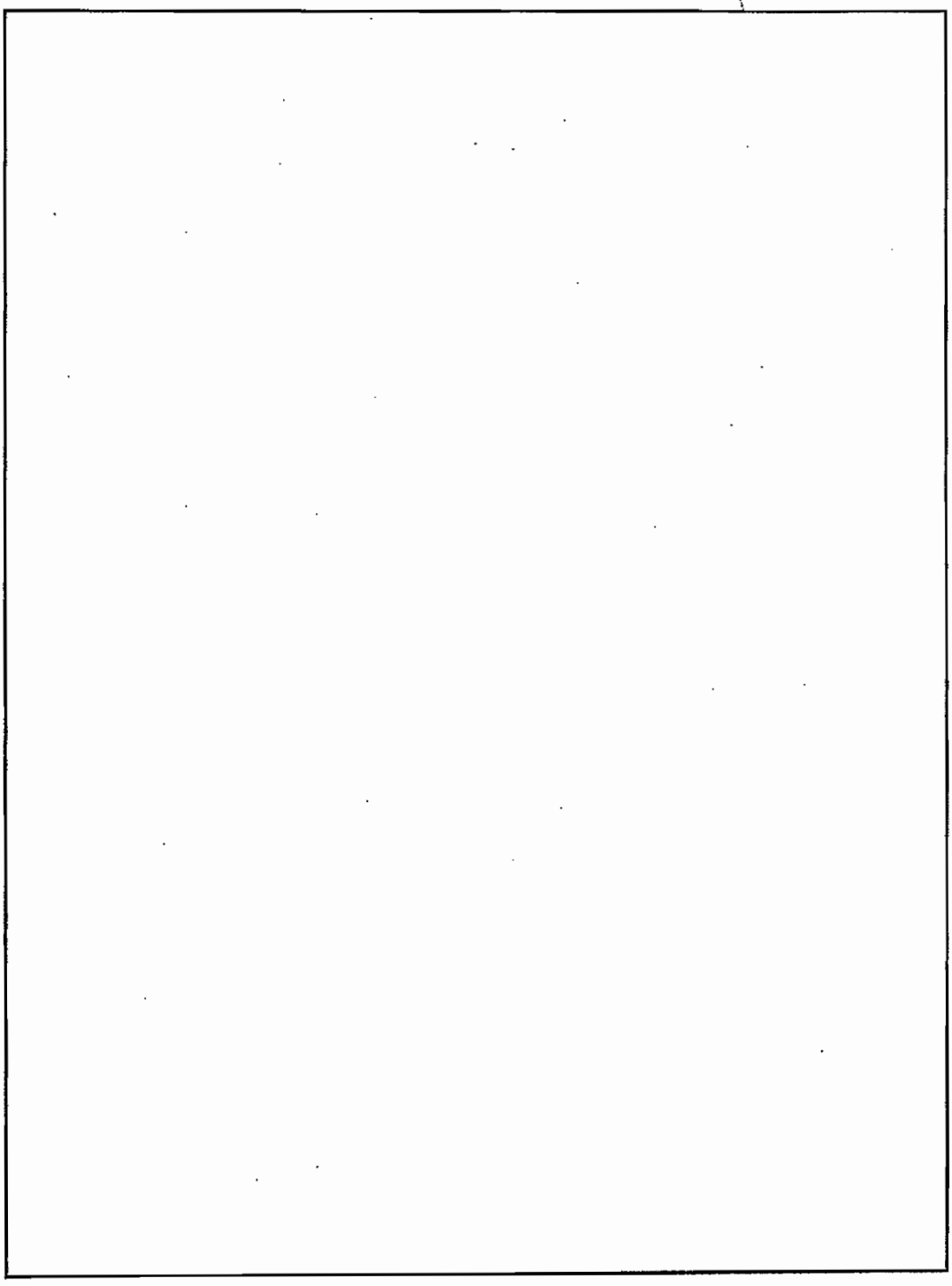
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

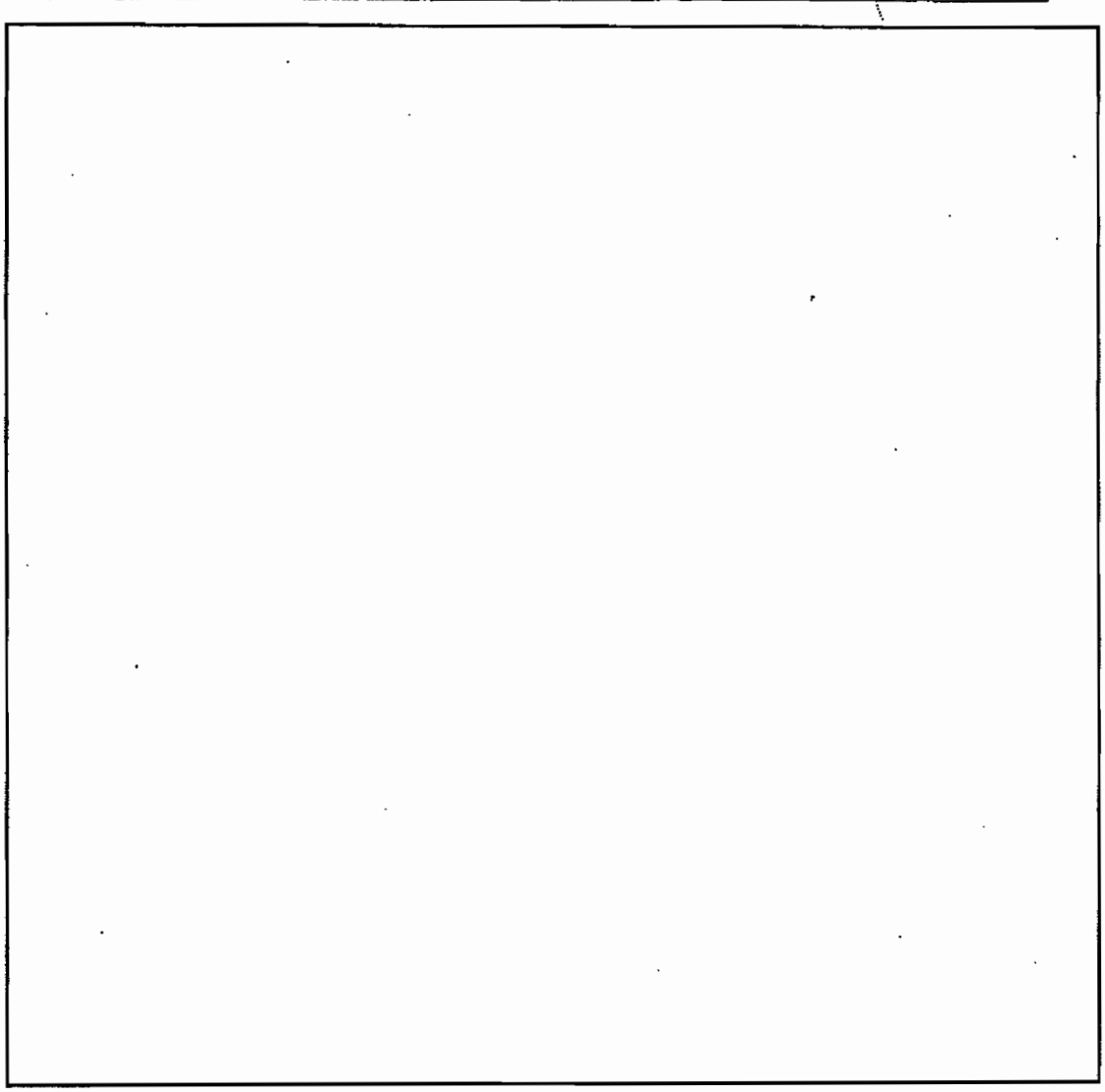
Appendix D.

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

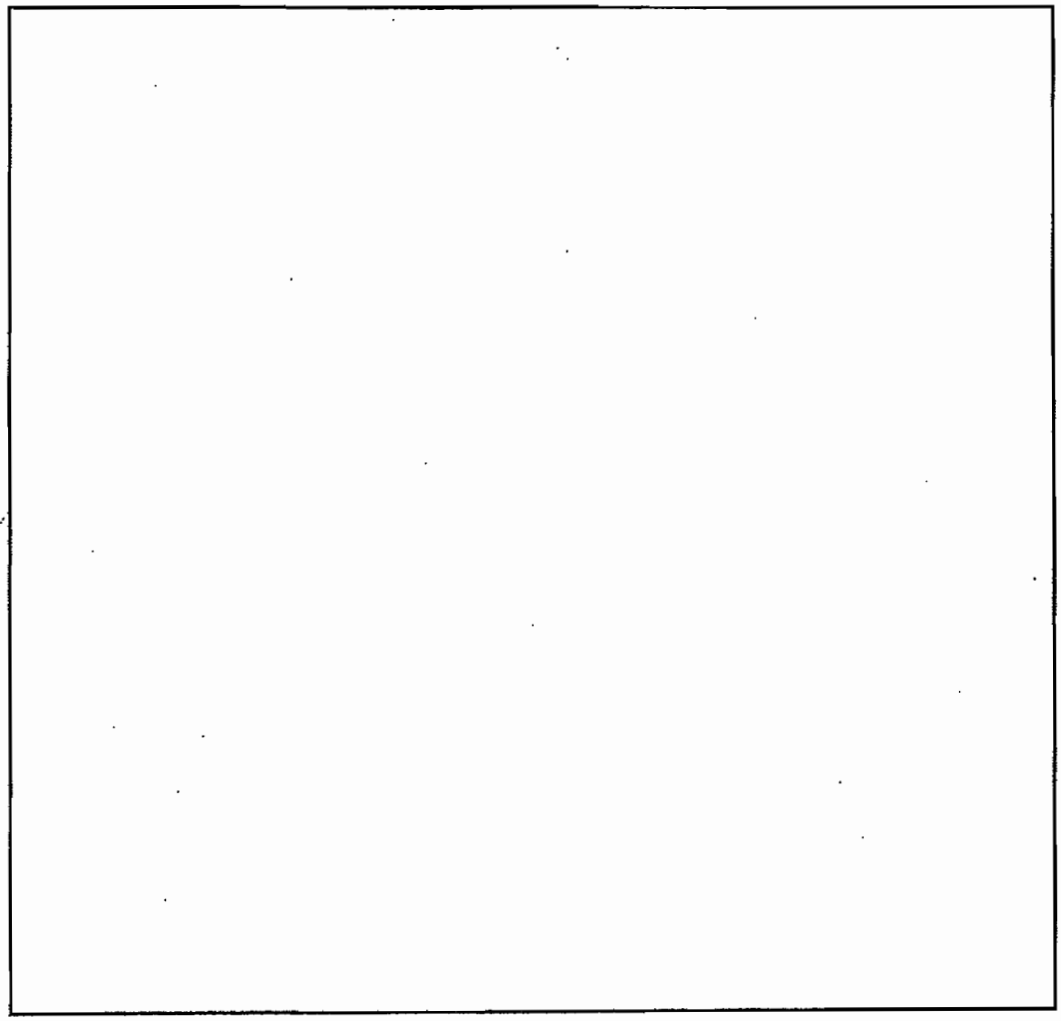
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



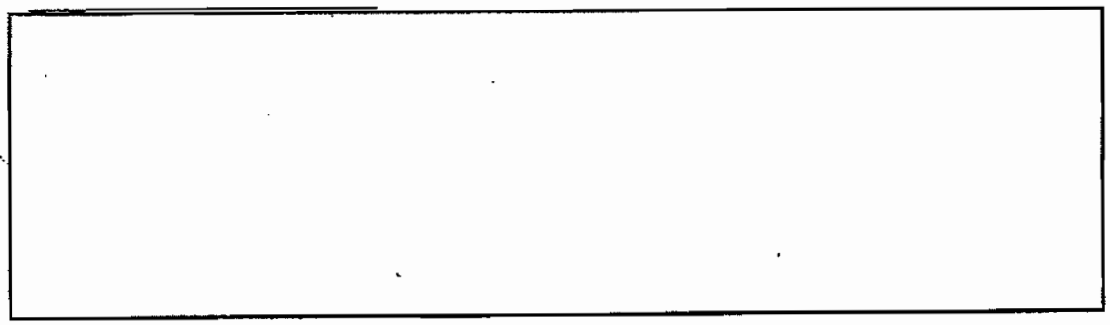
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

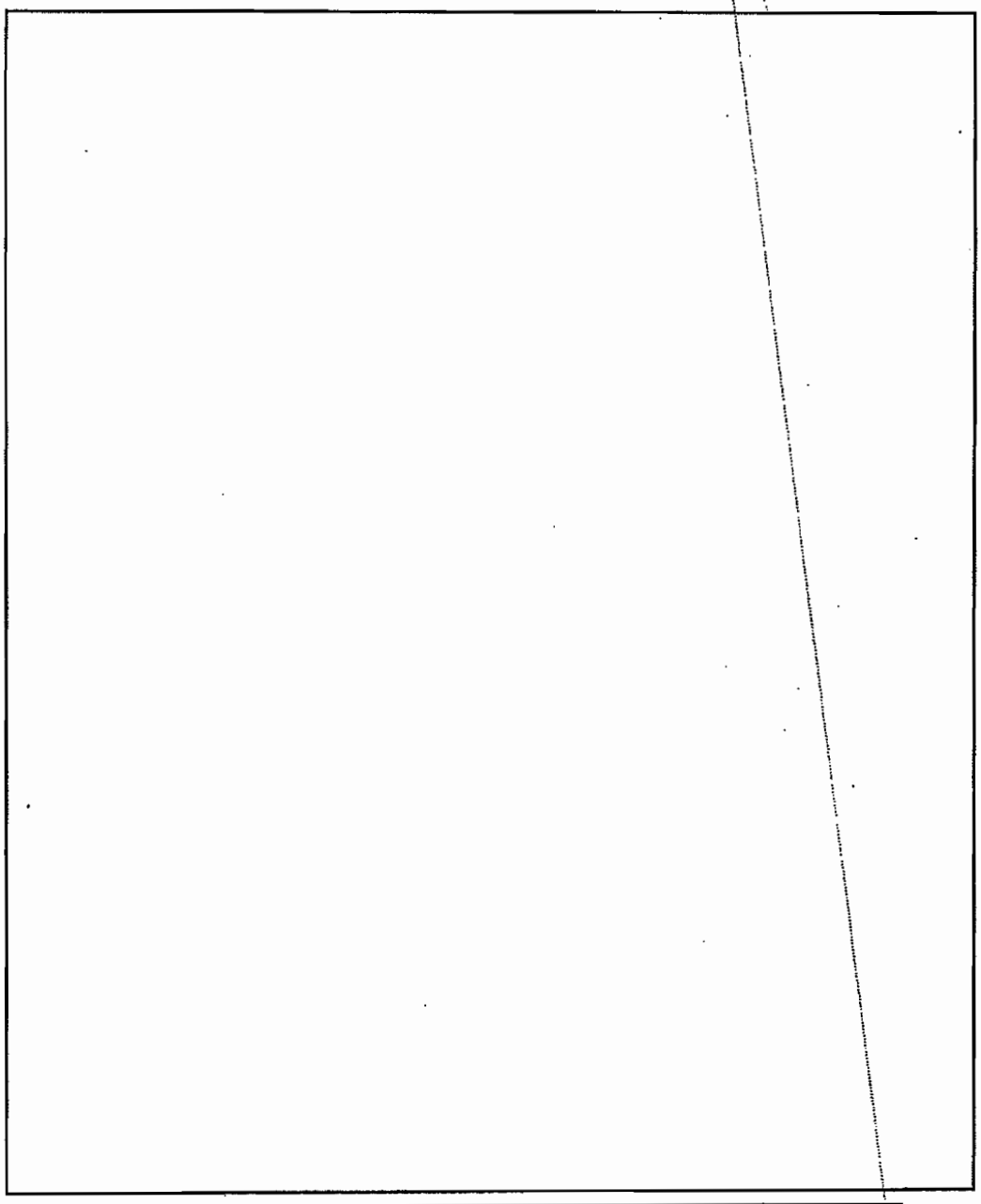


Appendix E. THINTHREAD (U)



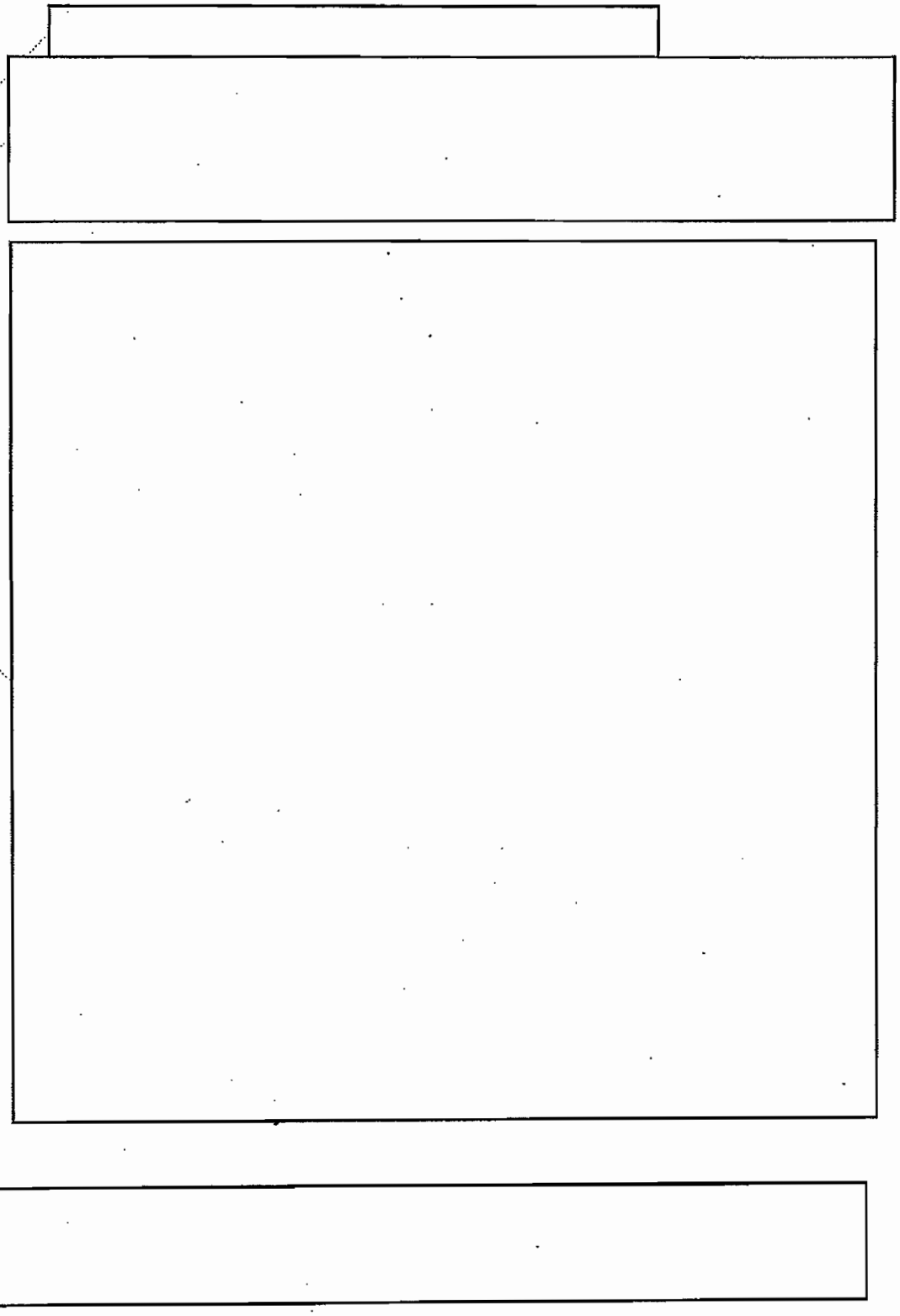
(b)(1)
(b)(3)-P.L. 86-36

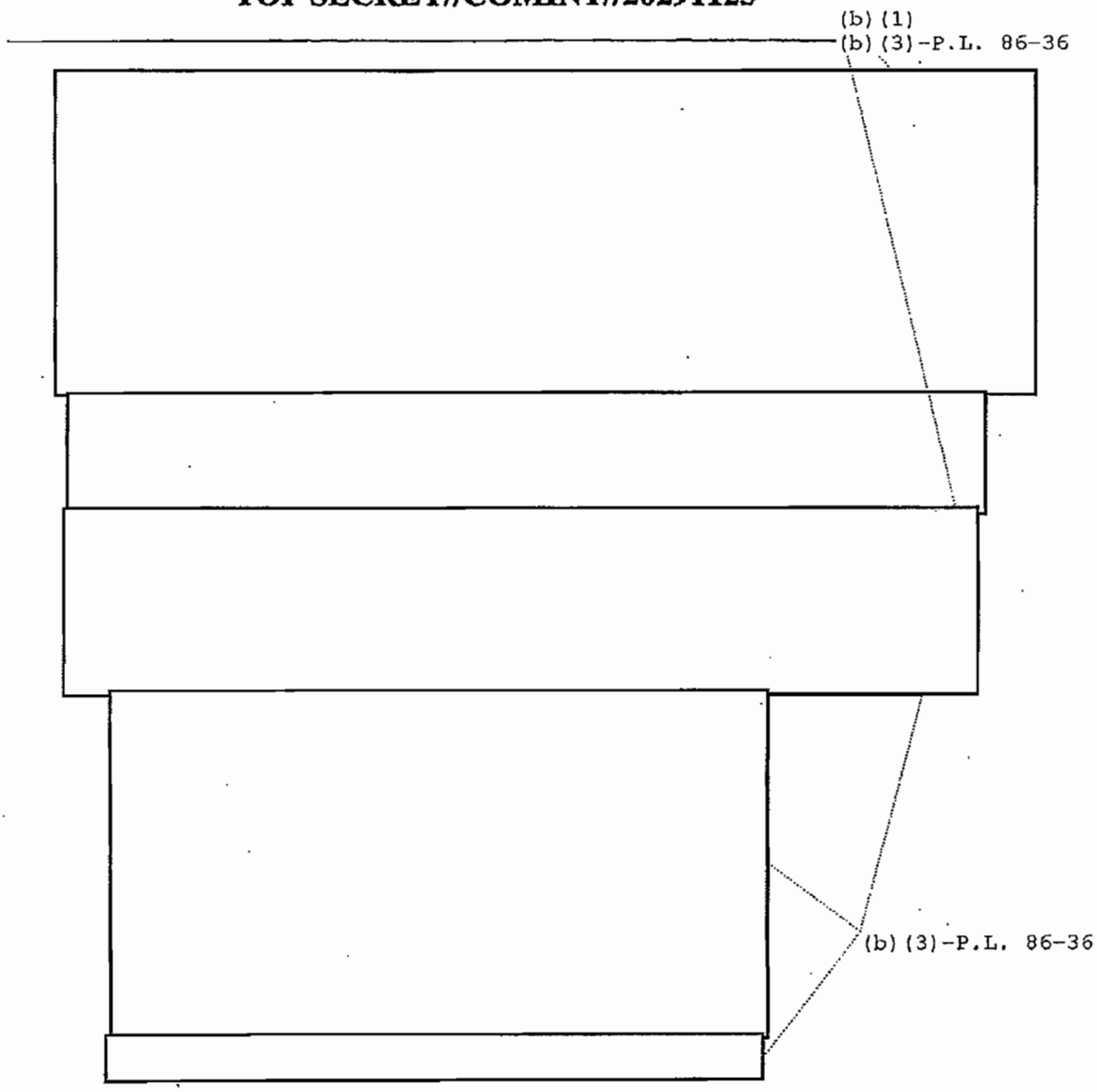




(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36



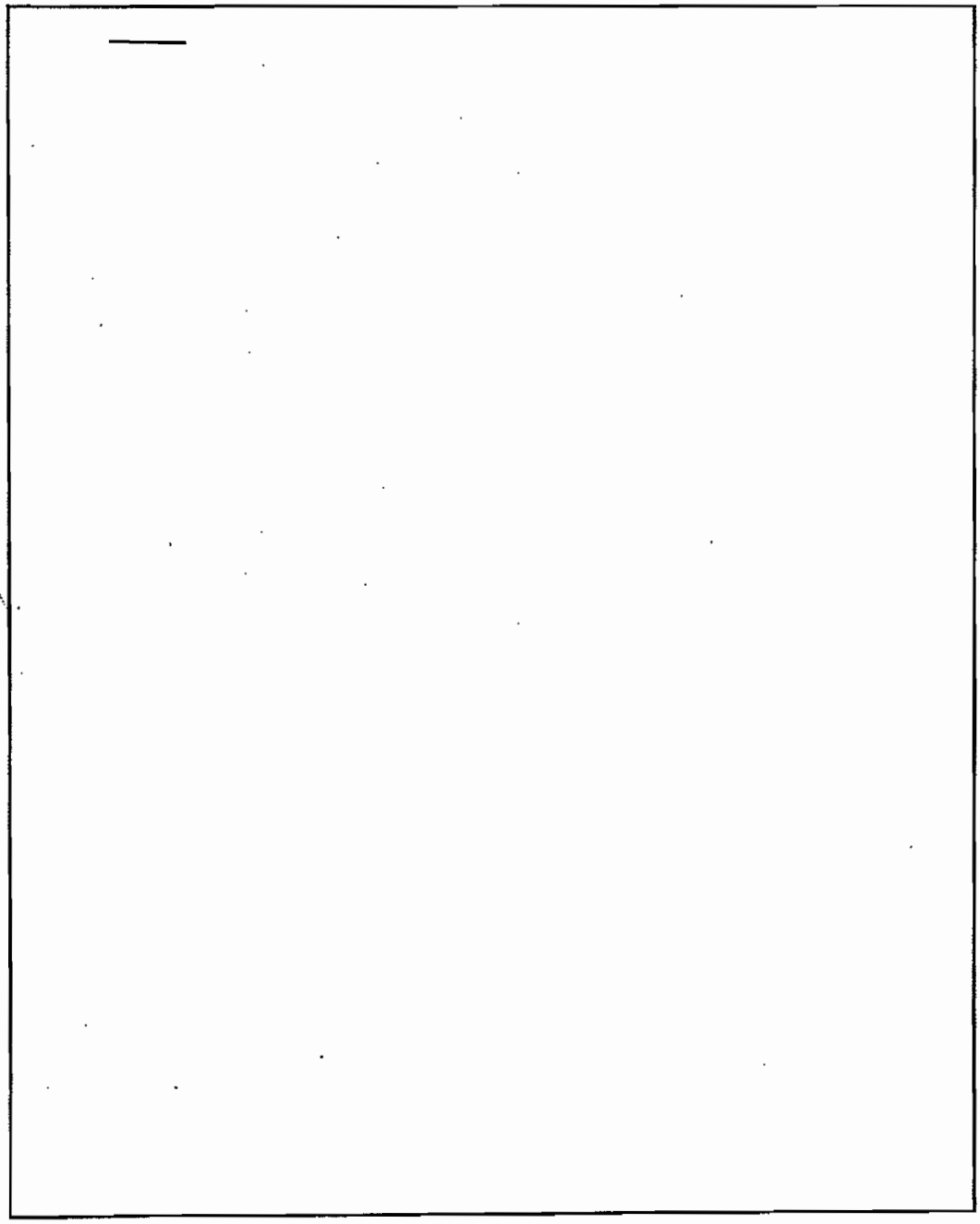

(b)(1)
(b)(3)-P.L. 86-36
(b)(3)-P.L. 86-36

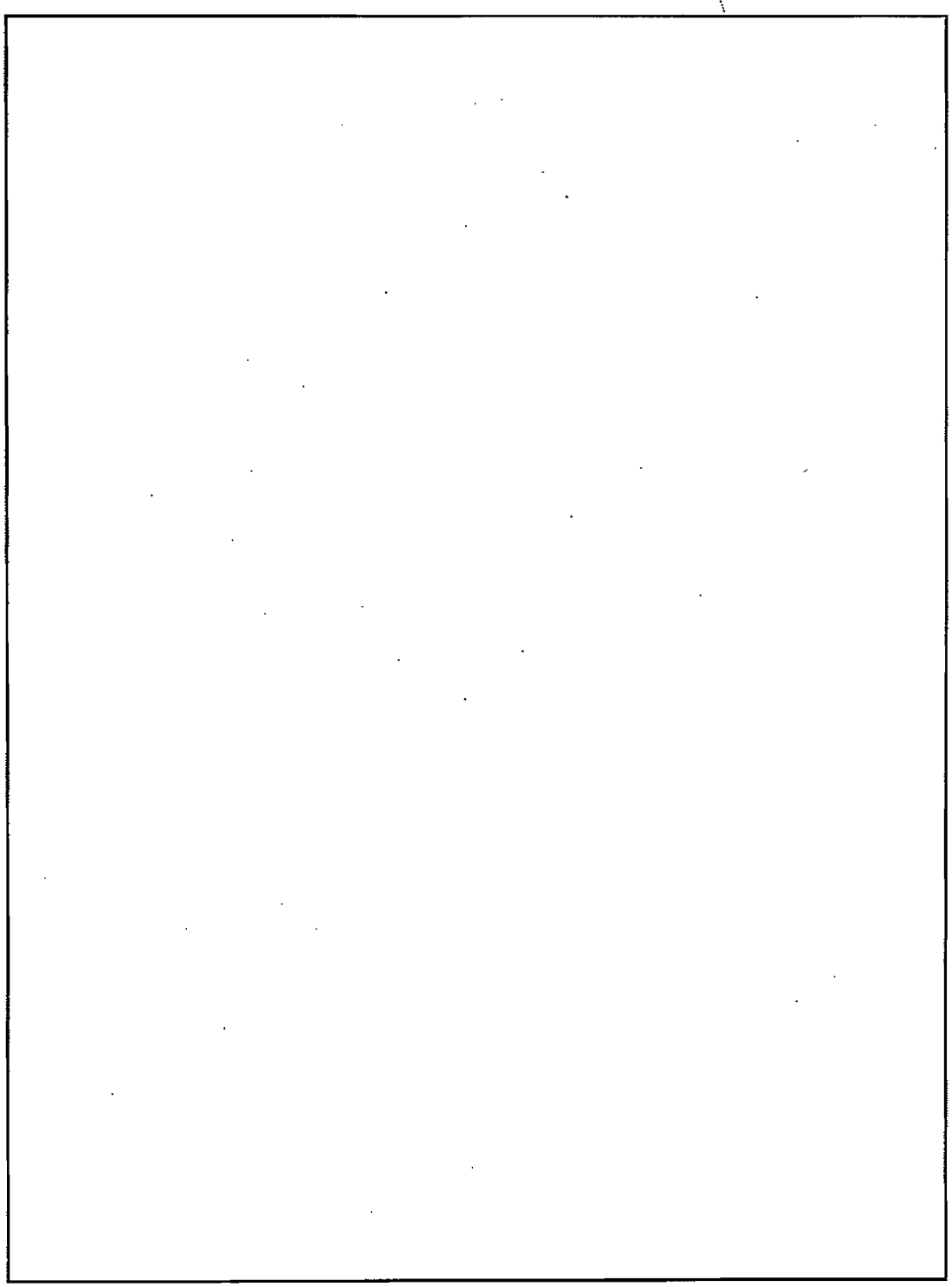
Appendix F. Technical Studies (U)

(b)(3)-P.L. 86-36

(U//~~FOUO~~) [redacted] THINTHREAD Technical Review

(b)(1)
(b)(3)-P.L. 86-36





(b)(3)-P.L. 86-36

(U//~~FOUO~~) Summary of Study Recommendations. The following is complete list of recommendations of the [redacted] THINTHREAD Technical Review:

[redacted]

(b)(3)-P.L. 86-36

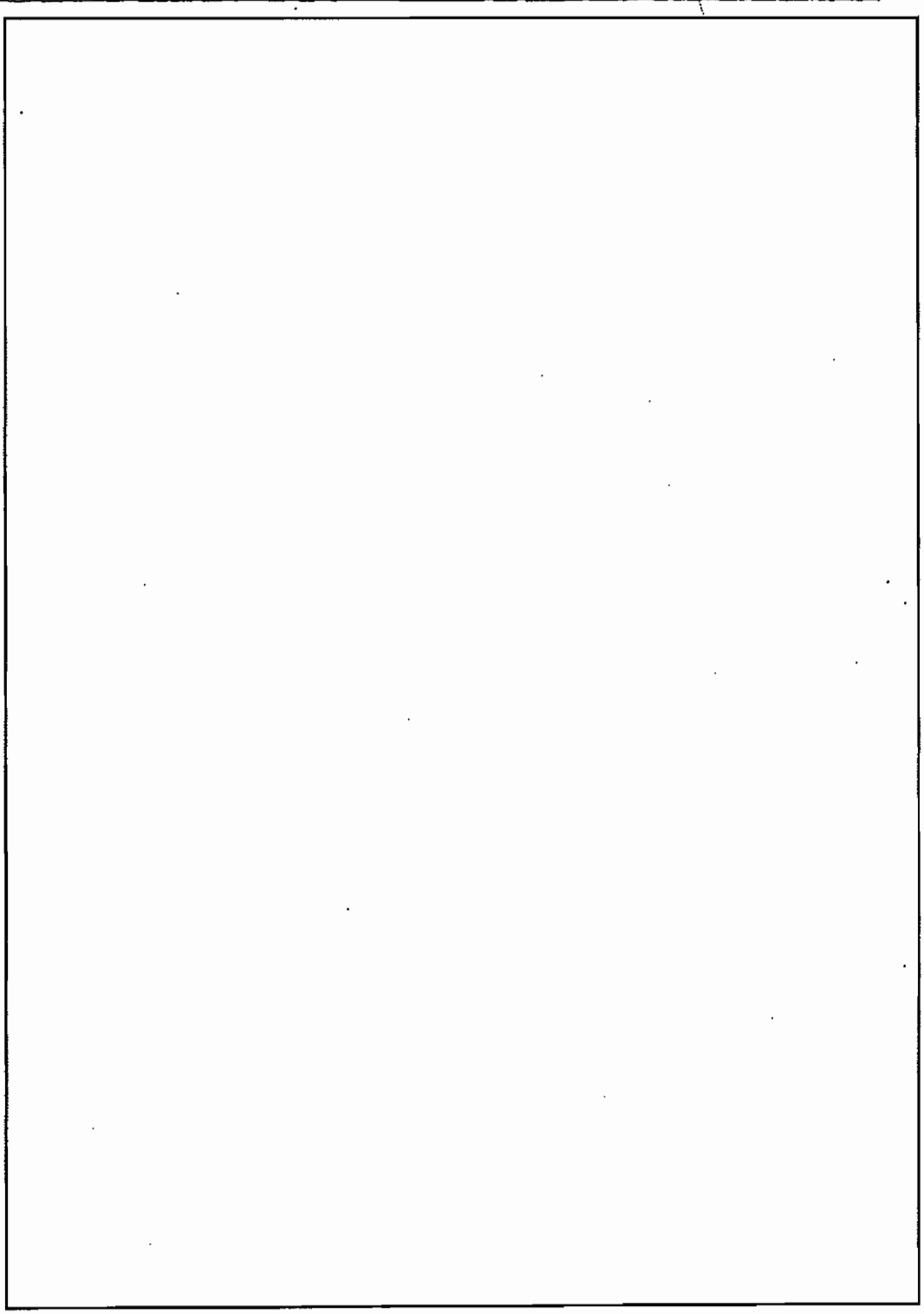
[redacted]

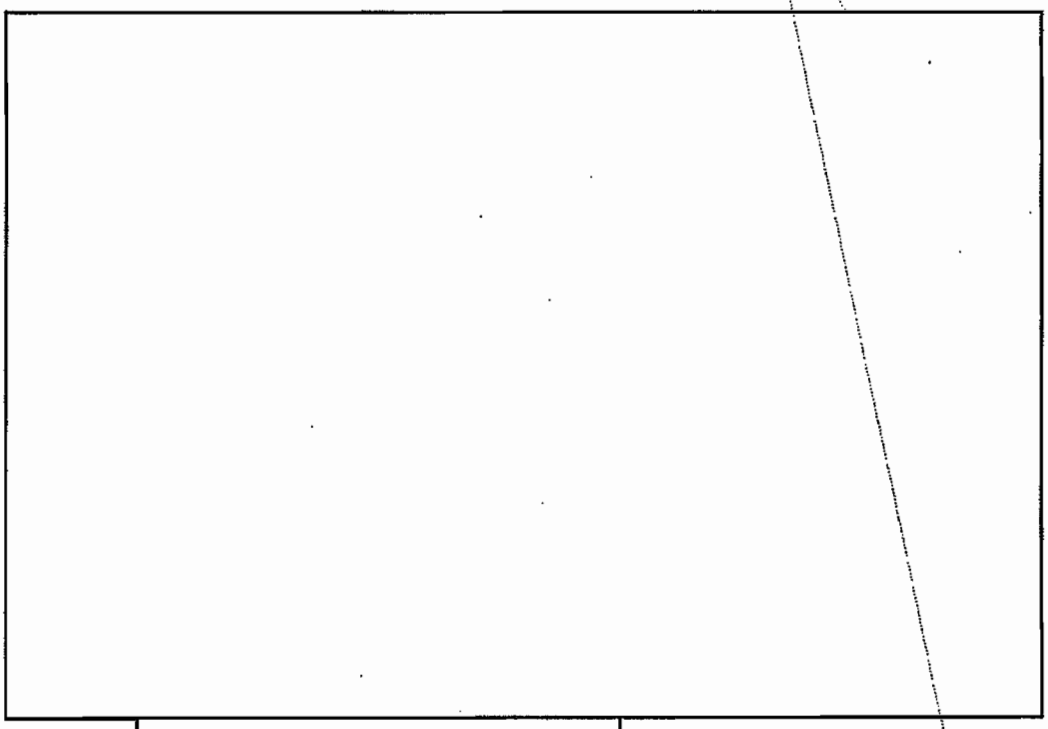
(U) NSA Modernization Follow-Up Study

~~(S//SI)~~ The "NSA Modernization Study," July 13, 2001, and the "NSA Modernization Follow Up Study," December 2001, stated [redacted]

[redacted]

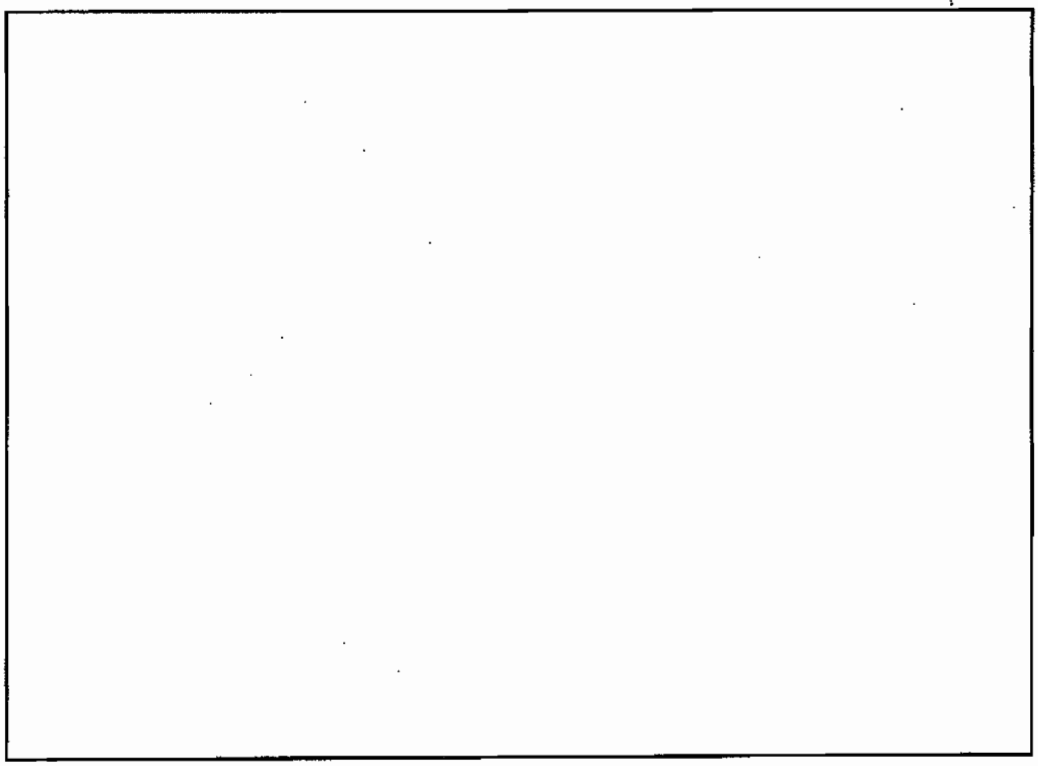
(b)(1)
(b)(3)-P.L. 86-36

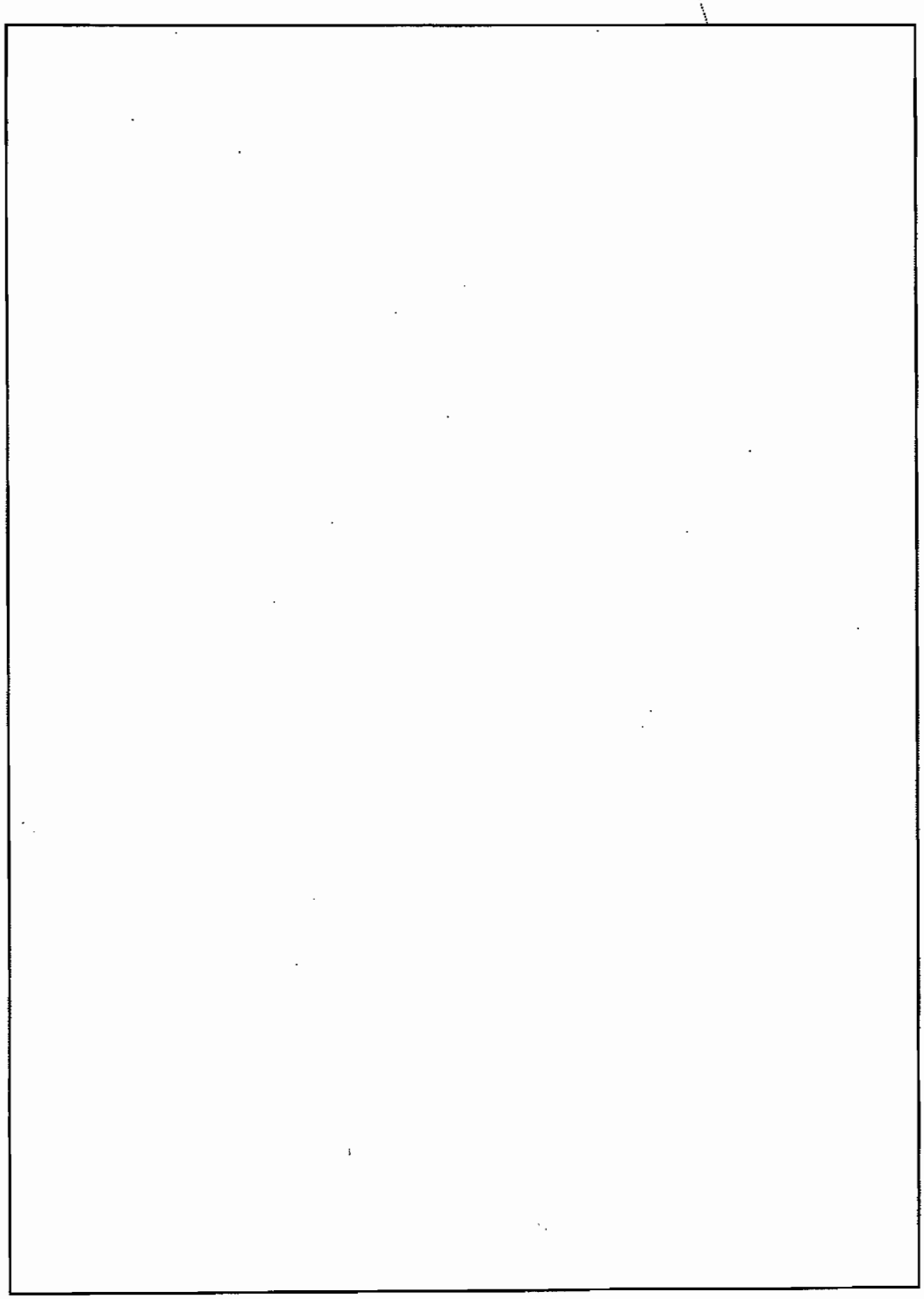


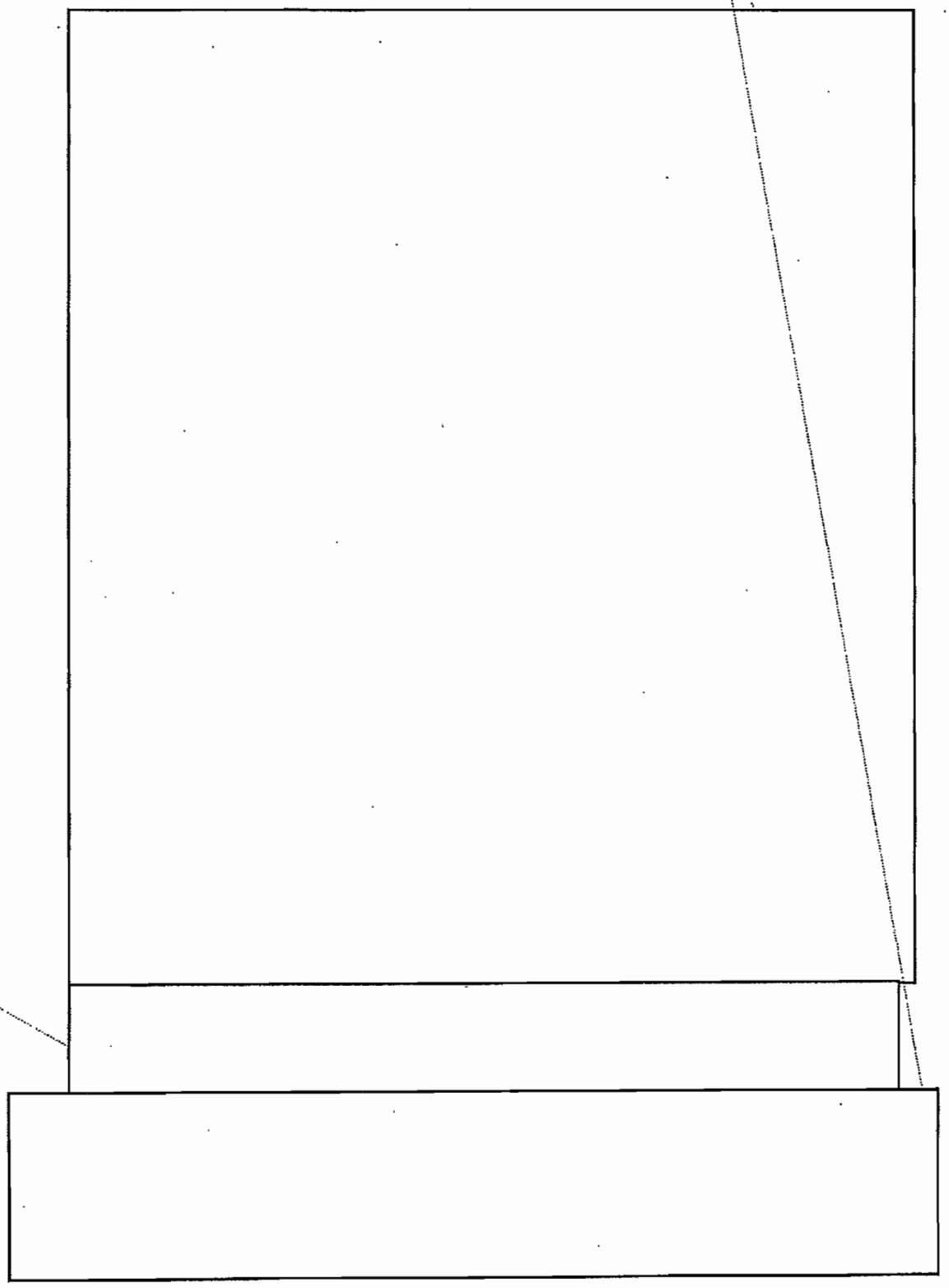


(U//~~FOUO~~)

(b)(3)-P.L. 86-36



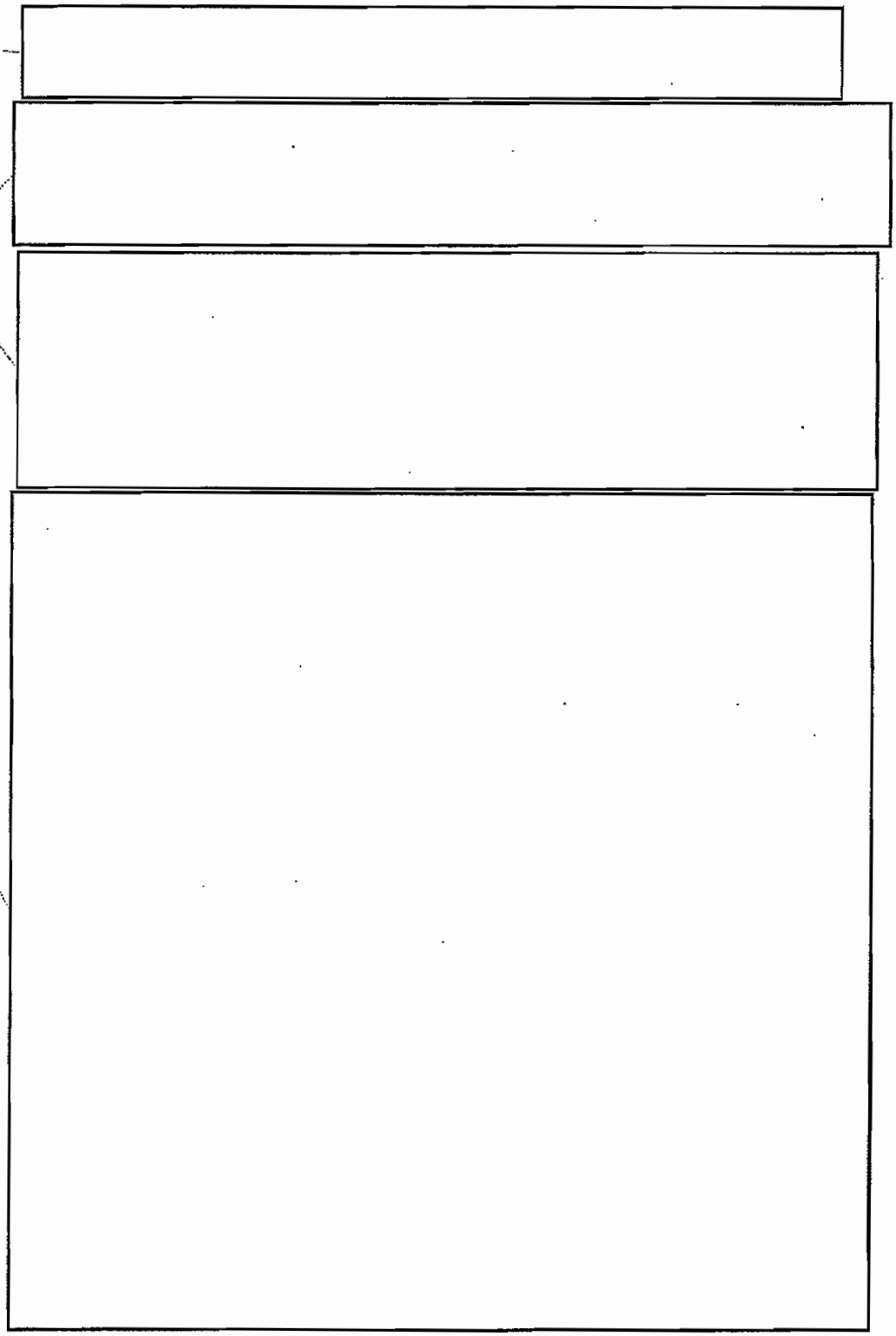




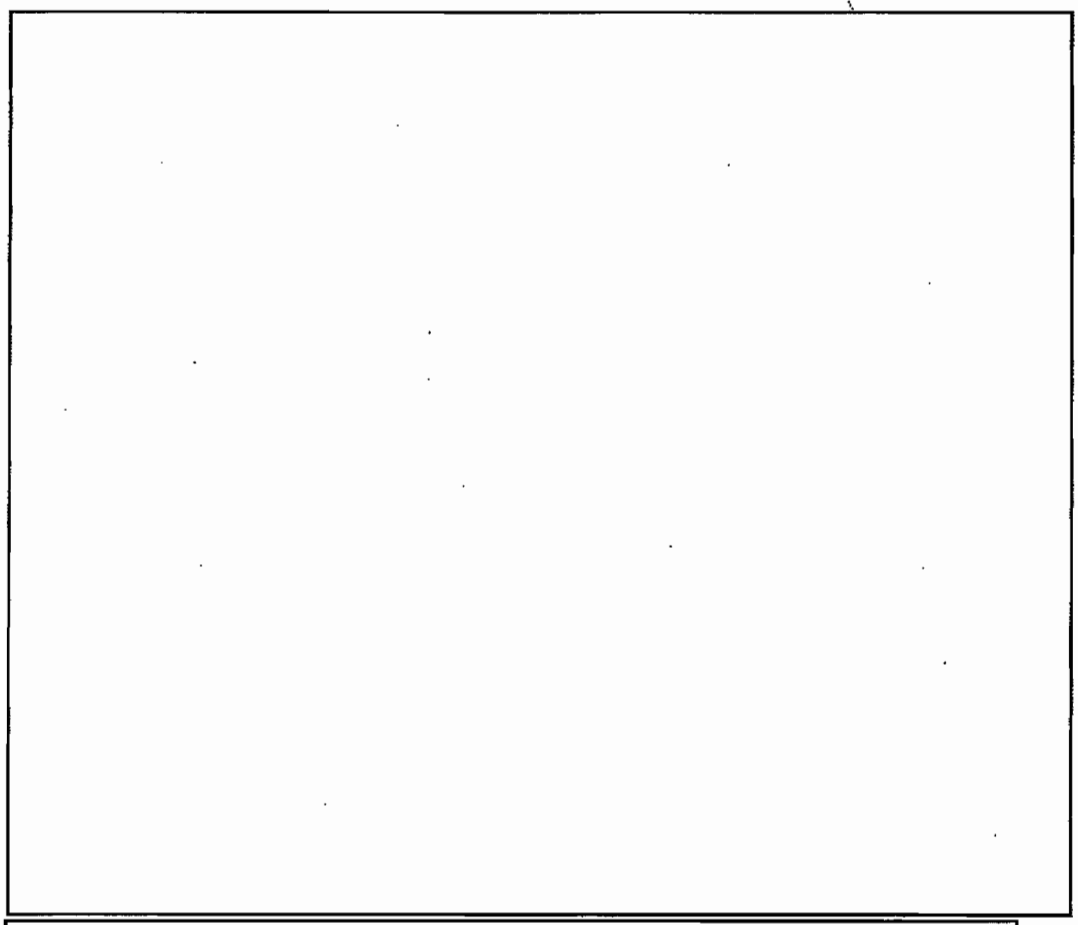
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

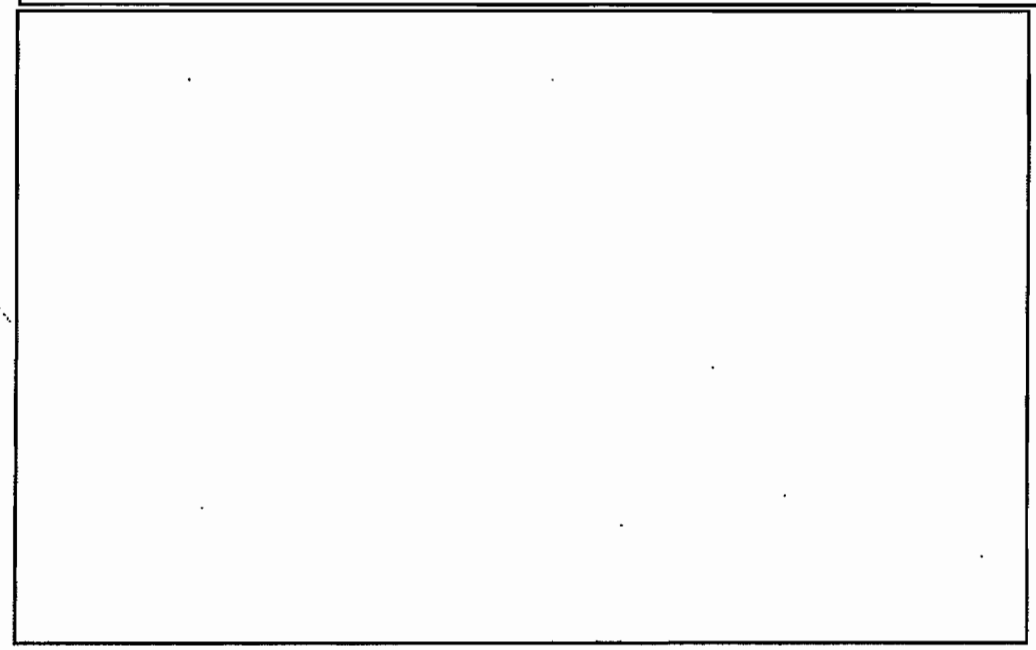
(b)(1)
(b)(3)-P.L. 86-36



(b)(1)
(b)(3)-P.L. 86-36



(b)(3)-P.L. 86-36



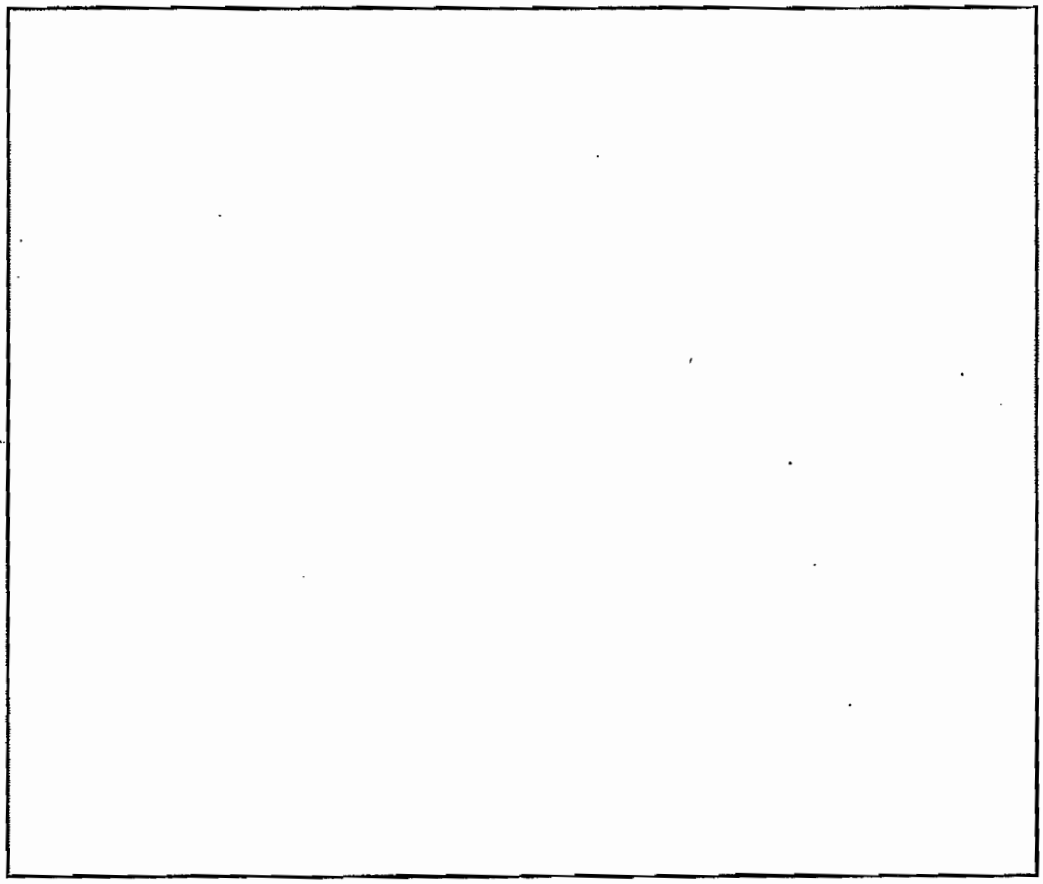
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

(b)(3)-P.L. 86-36

5

(b)(1)
(b)(3)-P.L. 86-36



Appendix G. [redacted] (U)

(b) (1)
(b) (3)-P.L. 86-36

(b) (3)-P.L. 86-36

(U) THINTHREAD: [redacted]

(b) (3)-P.L. 86-36

[redacted]

(U) Preliminary research on THINTHREAD was performed by the Test, Technology and Evaluation team in February 2002, but the formal evaluation was executed from March 1, 2002, through March 18, 2002.

(U) Summary of THINTHREAD [redacted]

[redacted]

(U) General Recommendations.

(U//~~FOUO~~) The [redacted] Assessment Study made the following recommendations:

[redacted]

- (U) generate user, system, technical, and programmatic documentation.

[redacted]

(b) (3)-P.L. 86-36

(U) For further details, listed below are the seven key findings and related discussions in the THINTHREAD [redacted] Report.

(U) Finding 1 Discussion.

(U//~~FOUO~~) There were no technical issues that would prevent THINTHREAD [redacted]

[redacted]

- (U) Current THINTHREAD system development procedures were effective, and a cooperative development effort was proceeding smoothly with the pilot site.

[redacted]

(U) Recommendations. There were no recommendations.

(U) Finding 2 Discussion

[redacted]

(U) Recommendations. See the recommendations for THINTHREAD Findings 3 through 7 to address these risks.

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- (U) some THINTHREAD files could not be viewed to pursue corrective actions.

(U//~~FOUO~~) **Recommendations.** The issues previously mentioned would not

(U) Finding 3 Discussion

(U) There was minimal user, system, technical, or programmatic documentation. The existing documentation was insufficient to support the planned deployments.

- (U) There was no user documentation on how to use the tool. That was inefficient and could lead to a significant increase in user error. Difficulties using the tool can also lead to an increase in support calls that drained project resources.
- (U) THINTHREAD did not have a clearly stated, documented set of mission goals or objectives. There was no program plan, making it difficult to communicate information about THINTHREAD at a programmatic level.
- (U) A detailed schedule including all activities related to the system and deliverables before, during, and after deployment was not available. A high-level schedule containing the chronology of deployment was developed, but a detailed schedule was essential for proper resource management, costing, and prediction.

(h)(3)-P.L. 86-36

- (U) No installation and maintenance documentation was completed for site support personnel, although the team was working with the pilot site to develop installation documentation. Lack of installation and maintenance documentation
- (U) There was no operational support documentation. Lack of support documentation could adversely affect timely correction of problems and could lead to

(U) The effects of minimal documentation could be overcome if an integrated team accomplished the development and deployment of THINTHREAD.

(b) (3)-P.L. 86-36

[redacted]

(U//~~FOUO~~) Recommendations. Develop necessary documentation. That would necessitate an increase in the personnel devoted to documenting the system, but is essential to the successful deployment and operation of THINTHREAD. The lack of this documentation presented a serious risk to the successful deployment of THINTHREAD.

(U) Finding 4 Discussion

(U//~~FOUO~~) Deployment planning was slow to occur [redacted]

- (U//~~FOUO~~) Historically, the THINTHREAD Program Team focused on the prototype demonstration at the pilot site. The program's scope did not [redacted]

(b) (3)-P.L. 86-36

- (U//~~FOUO~~) The THINTHREAD Program Team did not have a comprehensive planning process. The lack of planning activities with [redacted] delayed deployment efforts and increased deployment costs.
- [redacted]
- (U//~~FOUO~~) Work roles essential to system deployment and operation were not identified [redacted] The relationships between work roles throughout the system's life cycle were not defined. The authorities for each work role had not been identified. The organizational structure set forth by the THINTHREAD Program Team focused on system development, and did not address system

(U//~~FOUO~~) deployment [redacted] The THINTHREAD Program Team was defining the additional work roles necessary for deployment activities.

- [redacted]

(b) (3)-P.L. 86-36

- (U) THINTHREAD did not identify all the organizations requiring coordination through the various stages of deployment.

(U//~~FOUO~~) **Recommendations.** The findings presented a serious risk to successful deployment of THINTHREAD. To mitigate those risks, the following recommendations were suggested.

(b) (3)-P.L. 86-36
(b) (5)

- [redacted]

(U) Finding 5 Discussion

(U//~~FOUO~~) The customer service and user support processes for THINTHREAD were manually intensive and directly involved the technical staff.

(b) (3)-P.L. 86-36

- (U//~~FOUO~~) The quality of service and support received [redacted] using THINTHREAD was inconsistent. Some [redacted] interviewed by Test, Technology and Evaluation Team viewed the THINTHREAD Program Team to be unresponsive in general customer support, while [redacted] experienced good responsiveness to their requests for additions or modifications [redacted]

- (U//~~FOUO~~) There was no formal trouble ticket mechanism in place. If a user or operator had a problem with THINTHREAD, he contacted someone on the THINTHREAD Program Team. This contact depends on personal acquaintance, because no list of THINTHREAD personnel was readily available, and there was no mechanism to locate the proper THINTHREAD contact. Similarly, the status of the response to a request could only be learned by personal contact.

- (U//~~FOUO~~) There was no formal mechanism for managing externally generated requirements, to include submitting a new requirement to THINTHREAD or for following the progress of the work.

- (U//~~FOUO~~) A single person on the THINTHREAD team was in charge of maintaining [redacted] With just a few users, that person was able to enter or change [redacted] according to user requests received on the telephone or by e-mail. However, as more users are added, one person may have difficulty meeting the increased demand. The lack of personnel may become a problem as THINTHREAD was scaled to handle an increased user load [redacted]

(b)(3)-P.L. 86-36

[redacted]

- (U//~~FOUO~~) A list of Web interface functionalities proposed [redacted] was not incorporated into THINTHREAD.

(U//~~FOUO~~) Recommendations. The findings that led to the recommendations would not have prevented the successful deployment of THINTHREAD [redacted] The recommendations were made to improve the operational efficiency of THINTHREAD after it was deployed [redacted]

- (U) Institute an automated, formal THINTHREAD customer service and user support process.
- (U) [redacted]

(b)(3)-P.L. 86-36

- (U//~~FOUO~~) Acquire and use a trouble ticketing tool, which can manage externally generated requirements as well as system problems. This tool should [redacted] The THINTHREAD Program Team should address high-priority requirements that fit within the program scope.
- (U) Develop a process to address Web interface functional enhancements requested [redacted]
- (U//~~FOUO~~) Address the lack of personnel depth in the THINTHREAD Program Team for maintaining [redacted] as THINTHREAD is scaled to handle more users [redacted]

(U) Finding 6 Discussion

(U//~~FOUO~~) There was no process for controlling and measuring operational, programmatic, and technical performance effectiveness of THINTHREAD, once deployed.

- (U//~~FOUO~~) THINTHREAD did not have a clearly stated set of system specifications or a method to validate the THINTHREAD concept or performance results. Thus, there was no way to determine if the system

~~(CU//FOUO)~~ was successful or if it failed, which may lead to confusion in stakeholders' understanding of the success of THINTHREAD.

- (U//~~FOUO~~) THINTHREAD had mechanisms for assessing progress and status within the system development phase. However, there were no systematic, consistent mechanisms for overall program measurement, which included identifying test criteria, establishing program schedules, and documenting a system baseline to address progress. No feedback mechanisms had been identified such as risk management or contingency planning.
- (U//~~FOUO~~) Aside from schedule control, there were no tools to measure progress towards program objectives because there were no formalized program objectives.
- (U//~~FOUO~~) THINTHREAD did not have Standards of Performance established for personnel developing THINTHREAD. If future THINTHREAD development crosses organizational groups, a common set of Standards of Performance for personnel may become necessary.
- (U//~~FOUO~~) There was no configuration management process, which could pose a risk when reporting system problems and correcting them In addition, the lack of a configuration management process could cause difficulty when upgrading or deploying versions, and also make rollback extremely risky.
- (U//~~FOUO~~) The fault or warning detection was automated but the necessary reactions and responses were not. software provided a simple way to check status of various system parameters through a Web interface. However, when an operator recognizes a problem, he must actively initiate corrective measures. Sometimes that action is a simple matter, such as restarting a process. At other times, physical hardware must be changed. No corrective action could be executed if an operator was not present to initiate a corrective action.
-

(b)(3)-P.L. 86-36

- (U//~~FOUO~~) THINTHREAD had no established process for managing requirements.

(U//~~FOUO~~) Recommendations. The findings that led to the recommendations would not have prevented the successful deployment of THINTHREAD to The recommendations were made to improve the operational efficiency of THINTHREAD after it was deployed The following is a list of recommendations.

- (U//~~FOUO~~) Develop processes and acquire automated tools based on clearly stated specifications for controlling and measuring the programmatic, operational, and technical performance of THINTHREAD deploymen

(b)(3)-P.L. 86-36

- (U//~~FOUO~~) Acquire a commercially available configuration control system to enable versioning, rollback, and configuration management. The system should interface with the trouble ticketing system and the requirements management system to provide full traceability.
- (U//~~FOUO~~) Develop Standards of Performance (if future THINTHREAD development crosses organizational groups).
- (U//~~FOUO~~) Automate reactions and responses to the existing fault and warning detection system
- (U//~~FOUO~~) Establish a requirements management process for THINTHREAD that is linked to

(U) Finding 7 Discussion

(U//~~FOUO~~) The number and skill mix of THINTHREAD personnel was inadequate

There were shortfalls with the numbers and skills of personnel required for planning and executing installations Also, there was a lack of documentation, providing the necessary maintenance and help desk support, configuration management, and planning and scheduling. Collectively, those shortcomings created a serious risk to successful completion

(b)(3)-P.L. 86-36

(U//~~FOUO~~) Recommendations. The finding presented serious risk to successful deployment of THINTHREAD. It was recommended to continue to identify and acquire the number and types of skilled personnel resources required for documentation.

(b)(3)-P.L. 86-36
(b)(5)

(b)(3)-P.L. 86-36

Appendix H.

(b)(1)
(b)(3)-P.L. 86-36

(U) Introduction

(U) Needs Analysis Revisited

(b)(1)
(b)(3)-P.L. 86-36

(U) System Capabilities Overviews

(b)(3)-P.L. 86-36

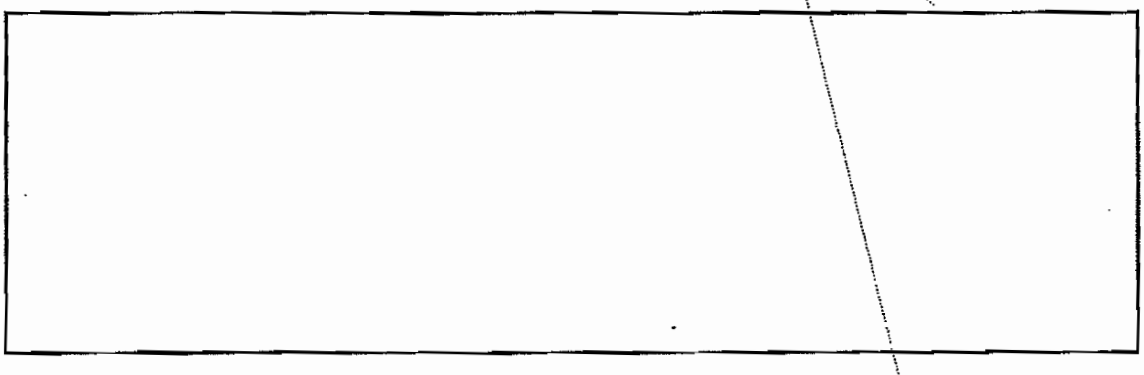
(U//~~FOUO~~) The following section outlines the strengths

(b)(1)
(b)(3)-P.L. 86-36

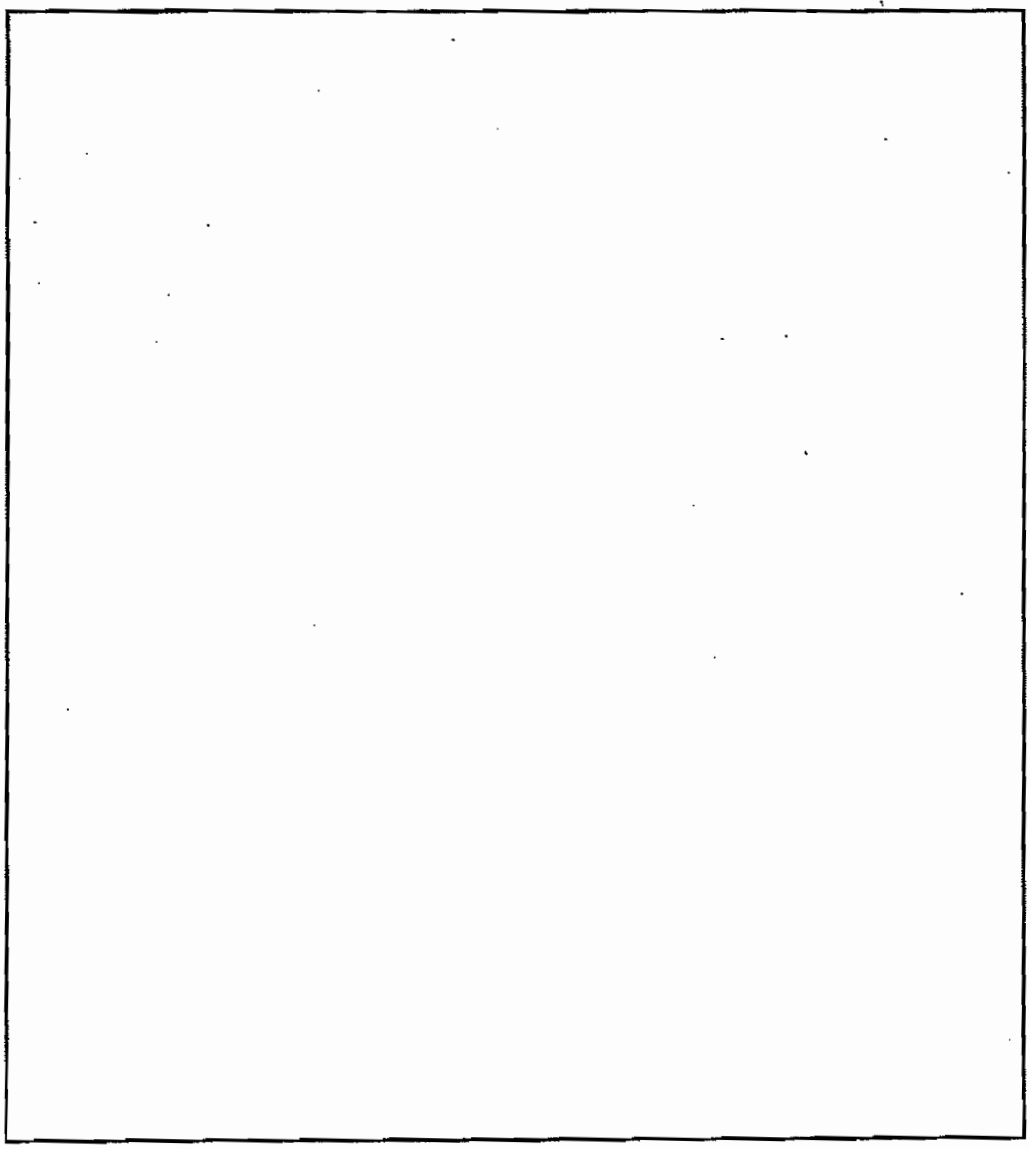
[redacted]

(b)(3)-P.L. 86-36

[redacted]



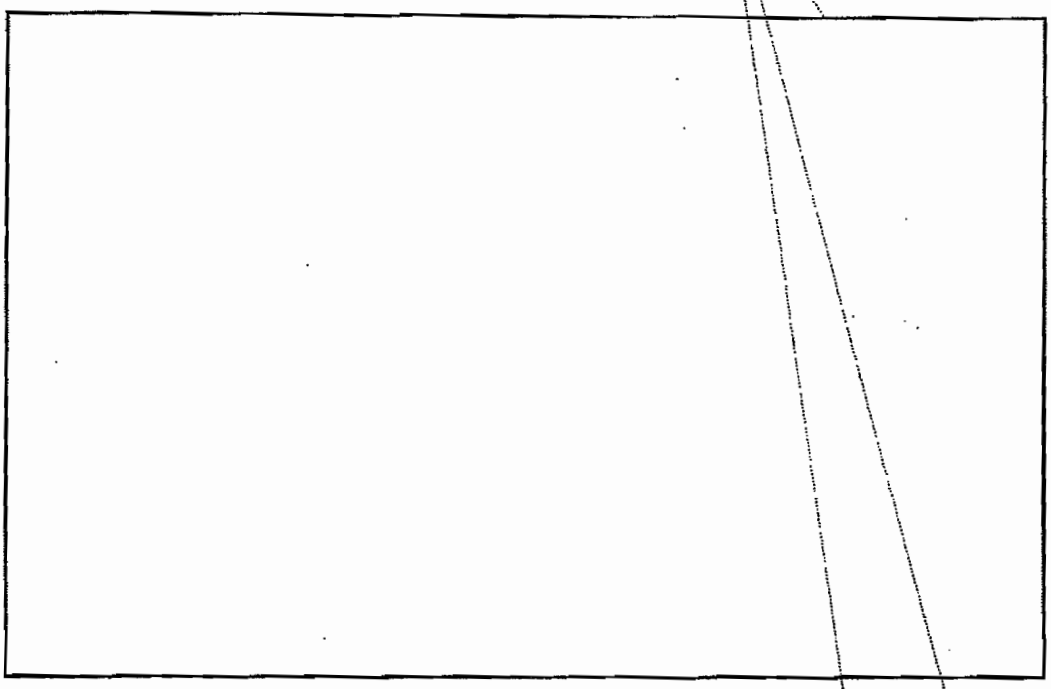
(U) Optimal System



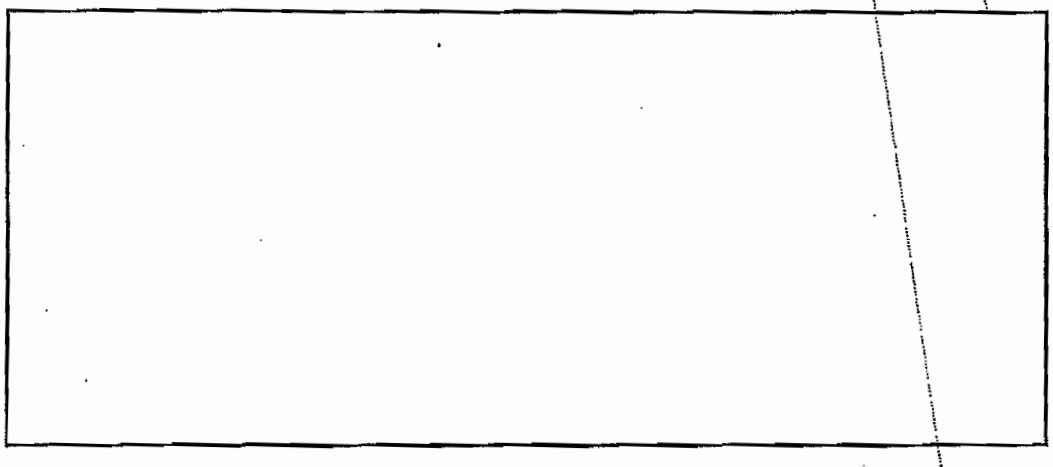
(U) Cost Analysis

(b)(3)-P.L. 86-36

(U) The following hypothetical scenarios illustrated how [redacted] may produce a more effective result in terms of both complexity and cost. A few assumptions apply:



(U) Conclusion



Appendix I. Glossary (U)

UNCLASSIFIED//~~FOR OFFICIAL USE ONLY~~ BY COMPILATION WHEN ASSOC WITH REST OF DOCUMENT

(U)

(b)(3)-P.L. 86-36

Consultative Committee for International Telegraph and Telephone (CCITT). Consultative Committee for International Telegraph and Telephone is the International organization responsible for the development of communications standards. Now called the International Telecommunication Union Telecommunication Standardization Sector.

(b)(3)-P.L. 86-36

(U)

(U)

(b)(3)-P.L. 86-36

Electronic Industries Association (EIA). A group that specifies electrical transmission standards. The Electronic Industries Association and Telecommunications Industry Association have developed numerous well-known communications standards, including Electronic Industries Association and Telecommunications Industry Association -232 and Electronic Industries Association and Telecommunications Industry Association -449.

(U)

(U)

(b)(3)-P.L. 86-36

International Telecommunication Union Telecommunication Standardization Sector (ITU-T). International body that develops worldwide standards for telecommunications technologies. The International Telecommunication Union Telecommunication Standardization Sector carries out the functions of the former Consultative Committee for International Telegraph and Telephone.

International Organization for Standardization (ISO). International organization that is responsible for a wide range of standards, including those relevant to networking. The International Organization for Standardization developed the Open System Interconnection reference model, a popular networking reference model.

(U)

(U)

(b)(3)-P.L. 86-36

Institute of Electrical and Electronics Engineers (IEEE) 802.3. Institute of Electrical and Electronics Engineers LAN protocol that specifies an implementation of the physical layer and the MAC sublayer of the data link layer. Institute of Electrical and Electronics Engineers 802.3 uses Carrier Sense Multiple Access Collision Detect access at a variety of speeds over a variety of physical media. Extensions to the I Institute of Electrical and Electronics Engineers 802.3 standard specify implementations for Fast Ethernet.

(b)(3)-P.L. 86-36

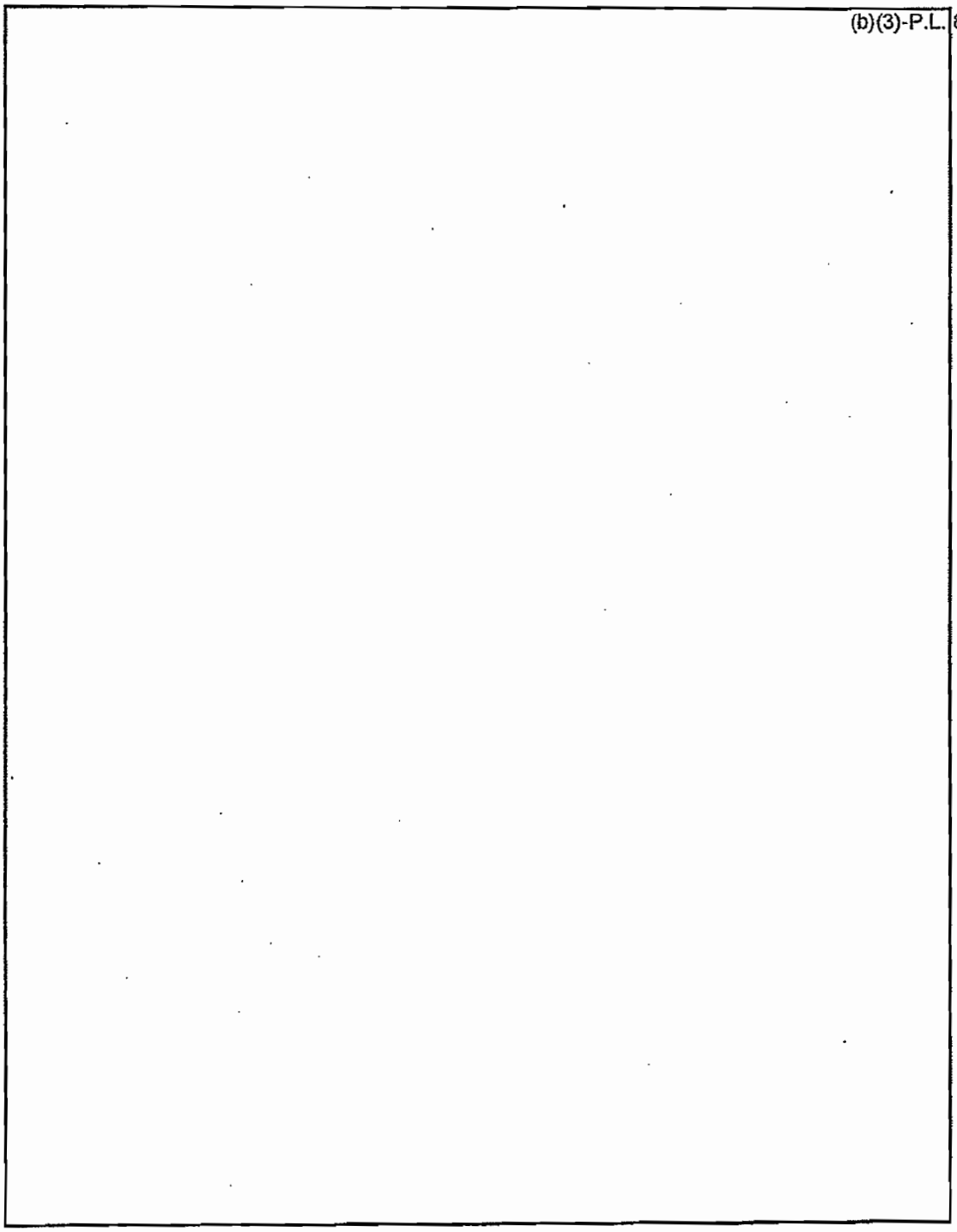
Open System Interconnection (OSI). International standardization program created by International Organization for Standardization and International Telecommunication Union Telecommunication Standardization Sector to develop standards for data networking that facilitate multi-vendor equipment interoperability.

(b)(3)-P.L. 86-36

(U)

(U)

(b)(3)-P.L. 86-36



(U)

(U)

(b)(3)-P.L. 86-36

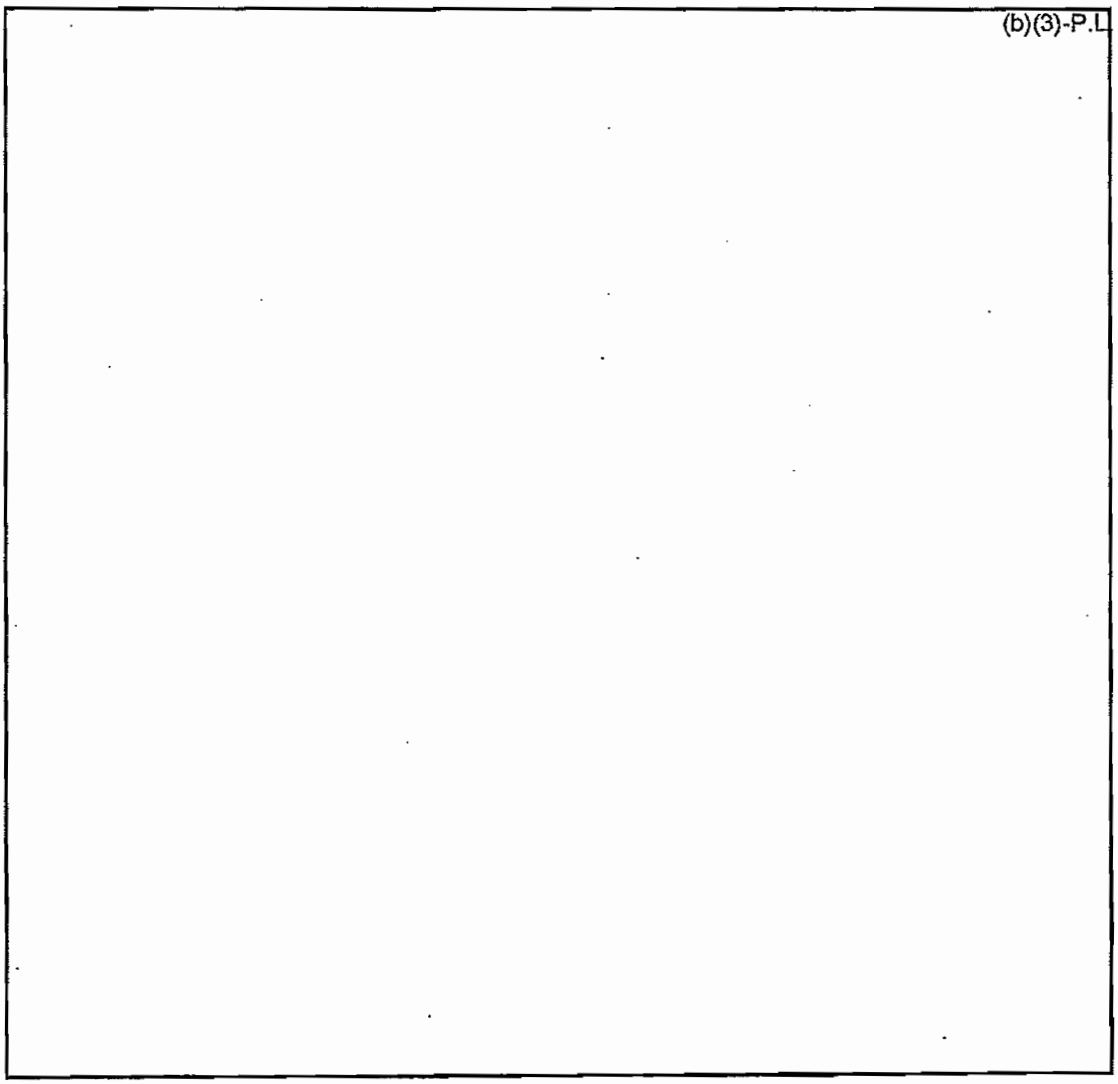
Telecommunications Industry Association (TIA). Organization that develops standards relating to telecommunications technologies. Together, the Telecommunications Industry Association and the Electronic Industries Association have formalized standards, such as Electronic Industries Association and Telecommunications Industry Association -232, for the electrical characteristics of data transmission.

(b)(3)-P.L. 86-36

(U)

(U)

(b)(3)-P.L. 86-36



(U)

Appendix J. Response to Management Comments (U)

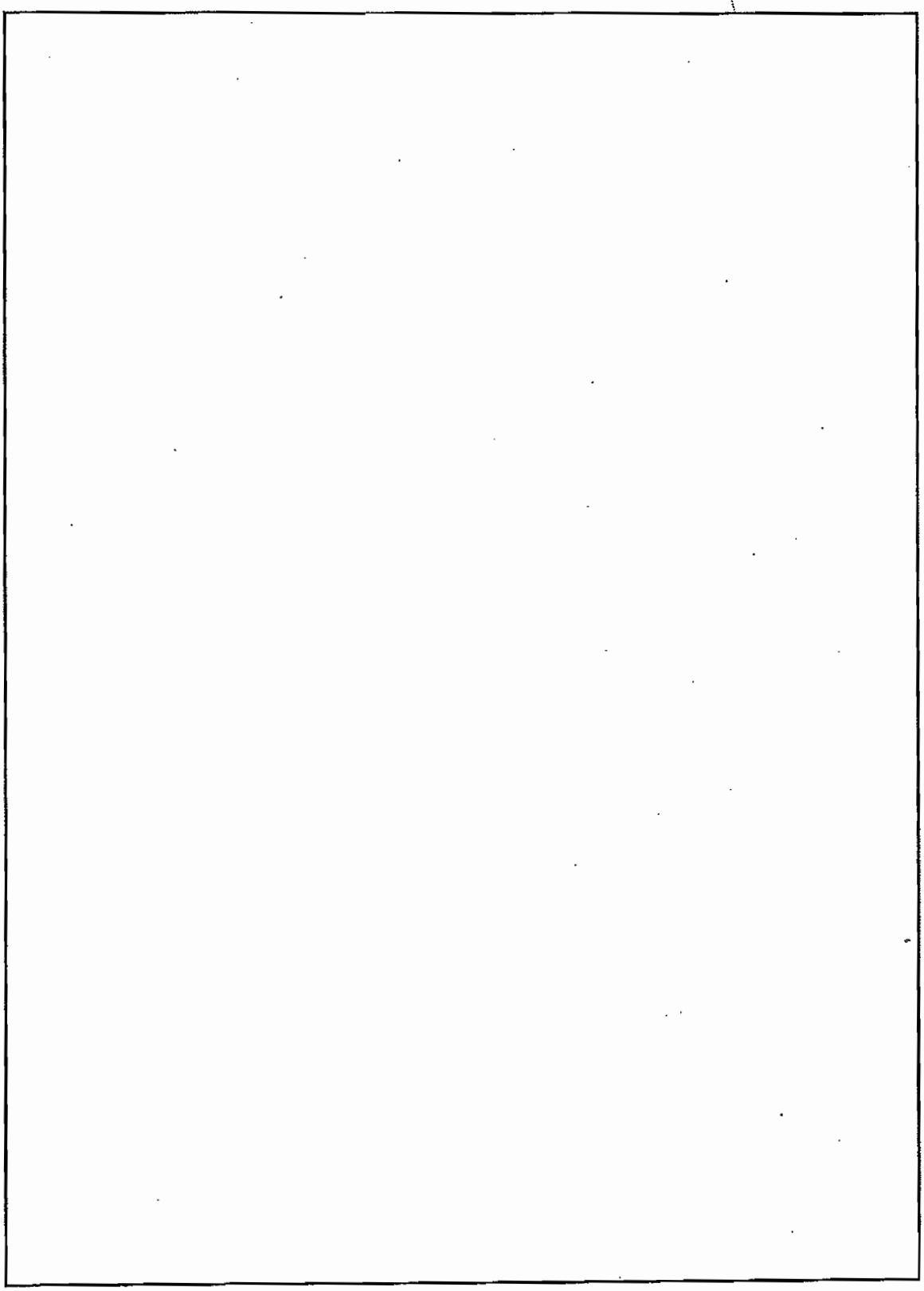
~~(S//SI)~~ **Management Comments.** A significant point of departure among Office of Inspector General Report assertions and NSA understanding, reflected within NSA's responses below, concerns

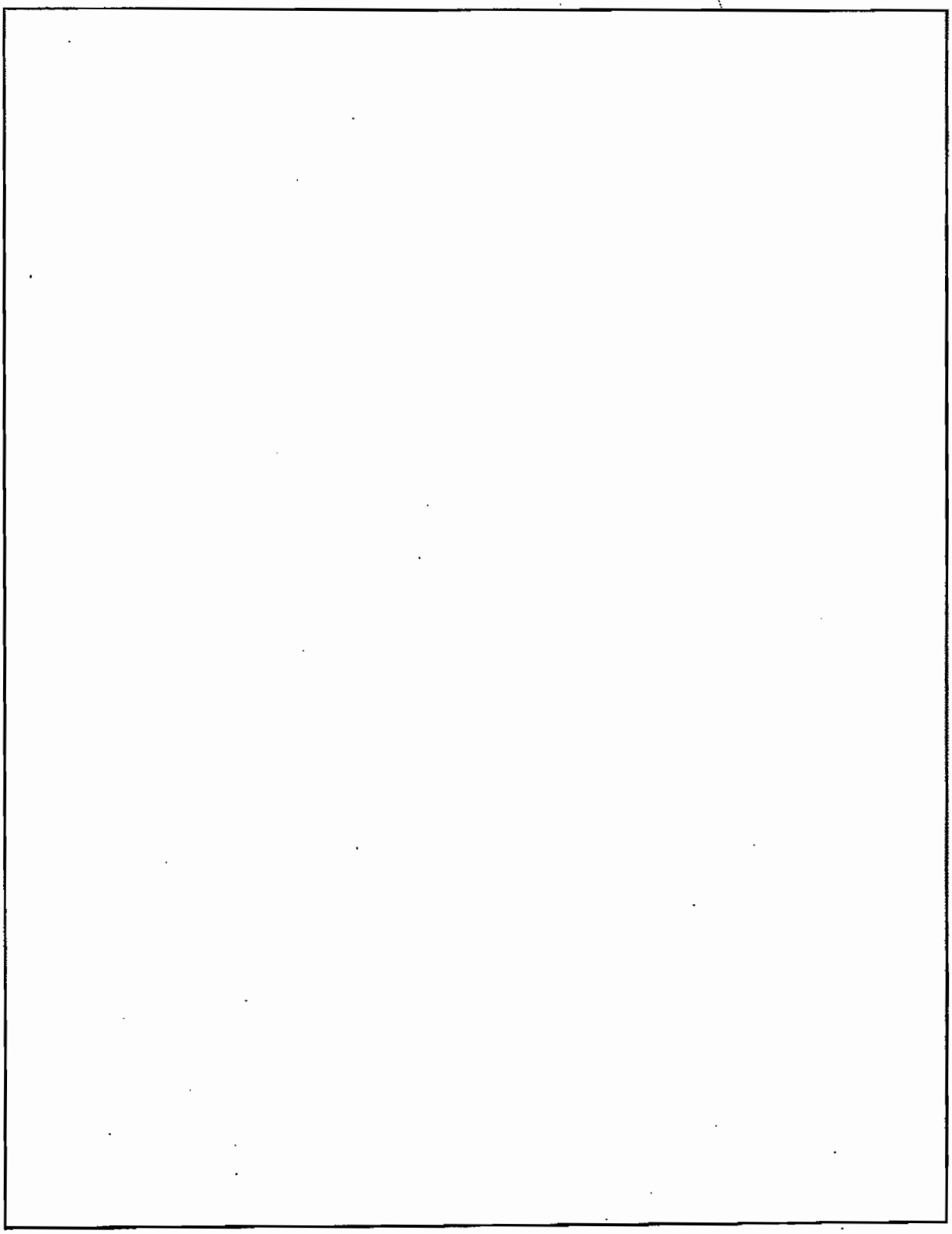
(b)(1)
(b)(3)-P.L. 86-36

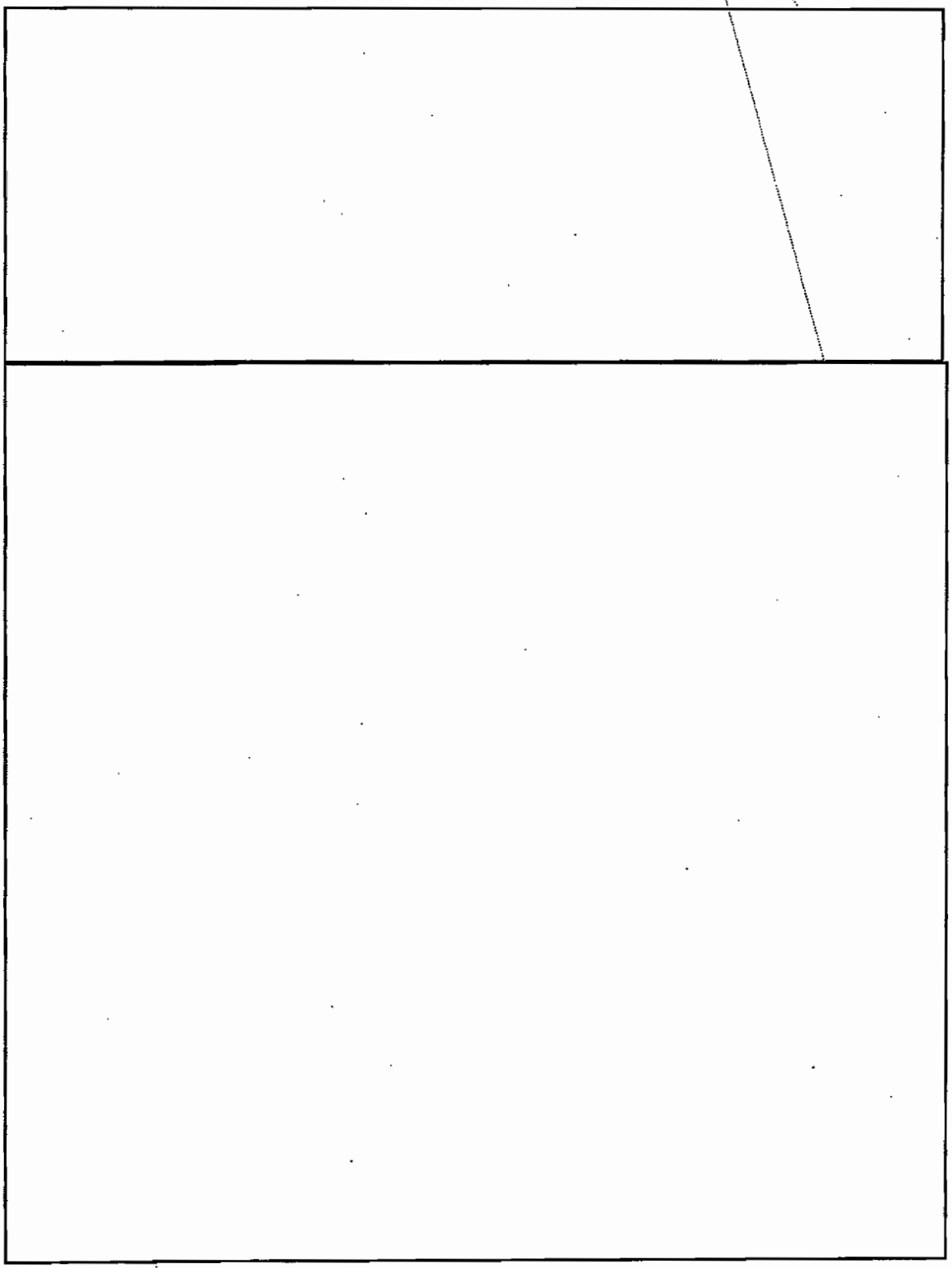
~~(C)~~ **Management Comments.** Although NSA will agree to conduct an independent assessment of TRAILBLAZER we believe that it will validate all of the assertions made in our responses to the Office of Inspector General recommendations. Furthermore, we do not agree with the original Hot Line complaint that fraud, waste, and abuse occurred during the which was conducted in an open fashion to provide the best benefit for Agency mission and customers. More importantly, there has been no evidence documented during this Office of Inspector General investigation that supports that complaint.

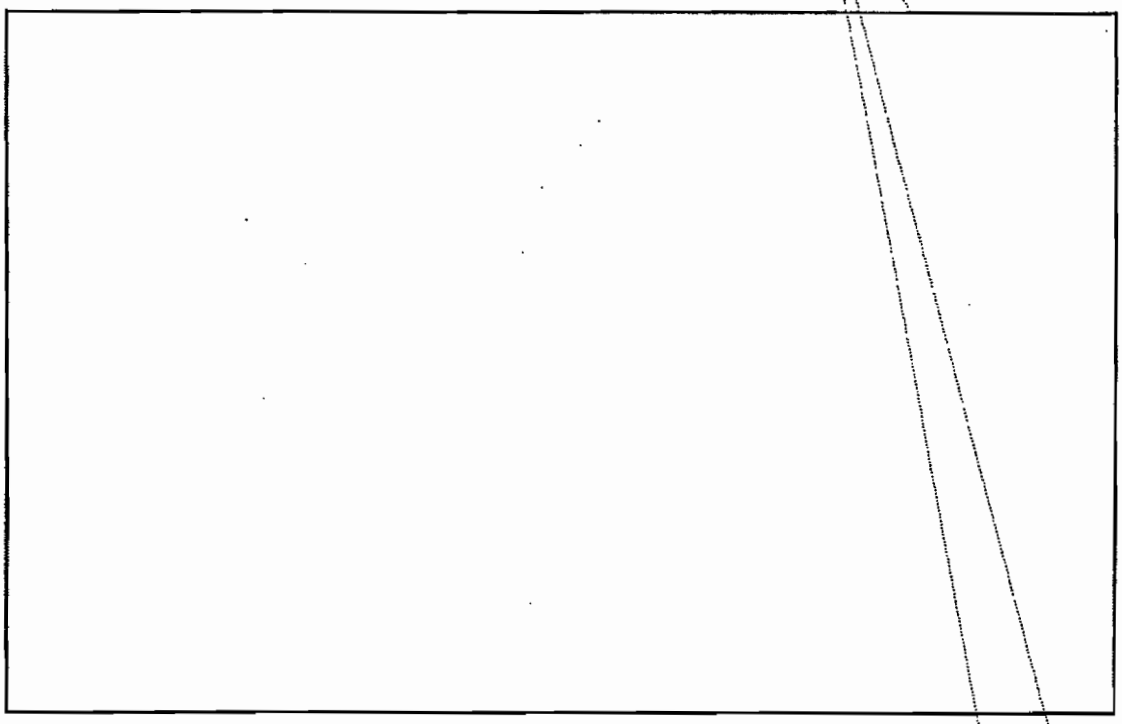
(b)(3)-P.L. 86-36

~~(S//SI)~~ **Audit Response.** The report documents that NSA spent approximately million to develop the TRAILBLAZER

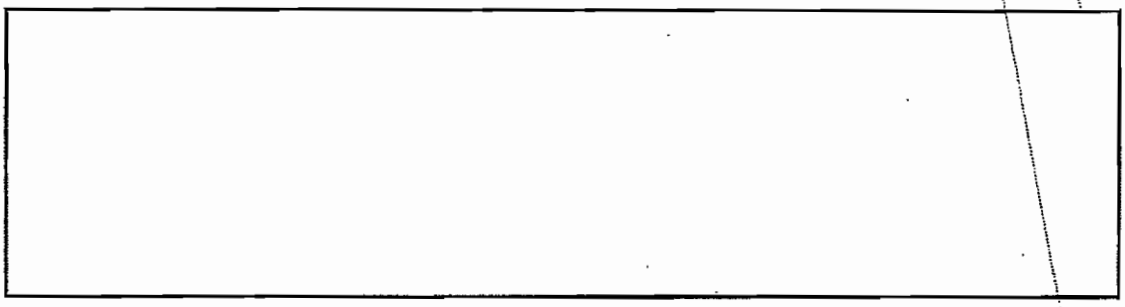




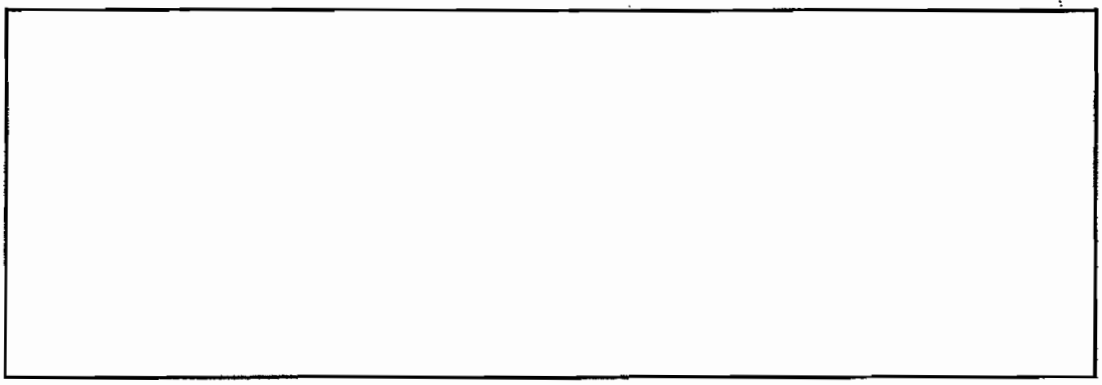


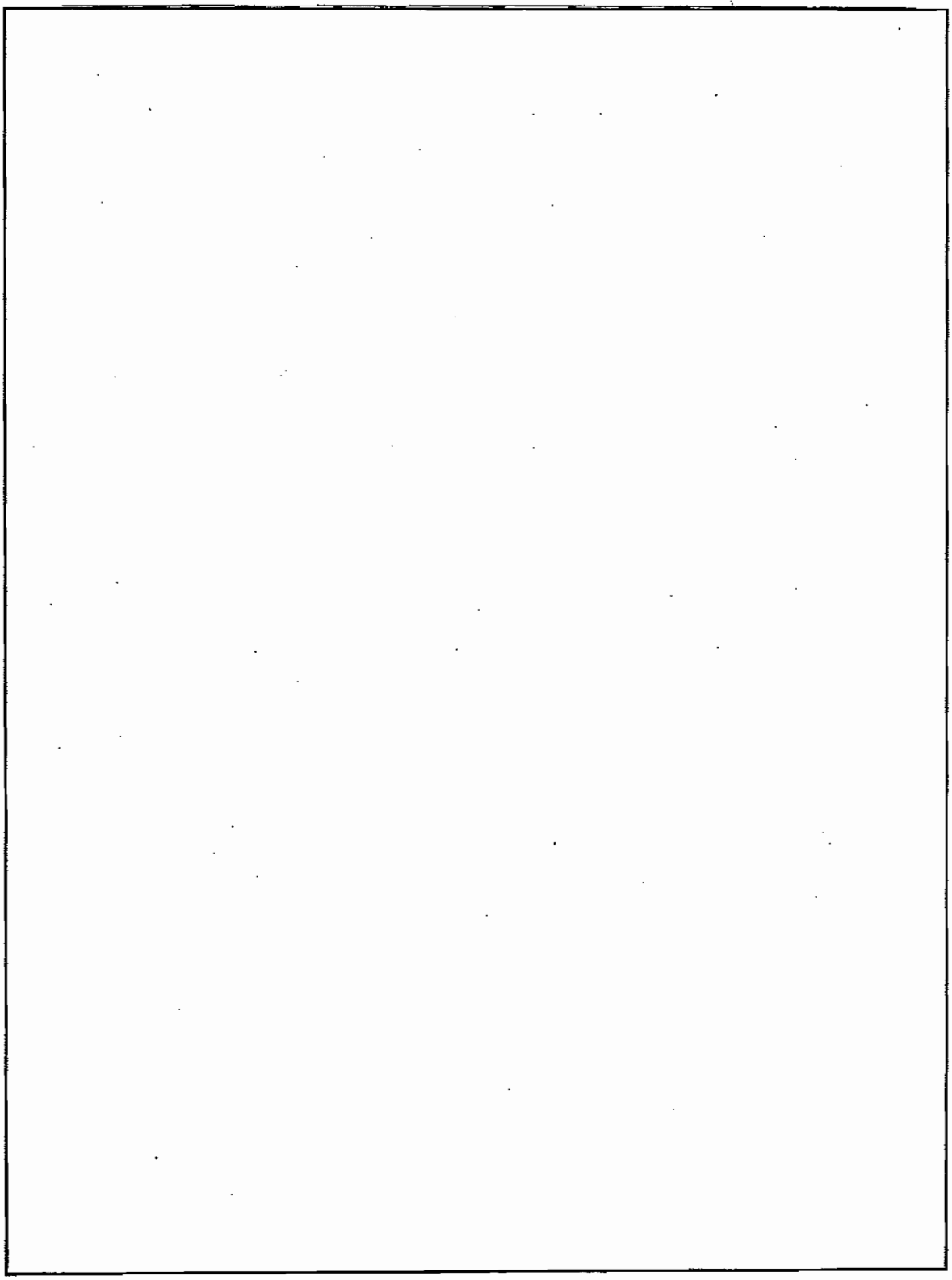


(U//~~FOUO~~) **Management Comments.** NSA recommended that the audit report emphasis NSA's cooperation and responsiveness to Congress.



(U//~~FOUO~~) Management Comments. NSA recommended that the audit report emphasis that the THINTHREAD capability is valued by NSA.





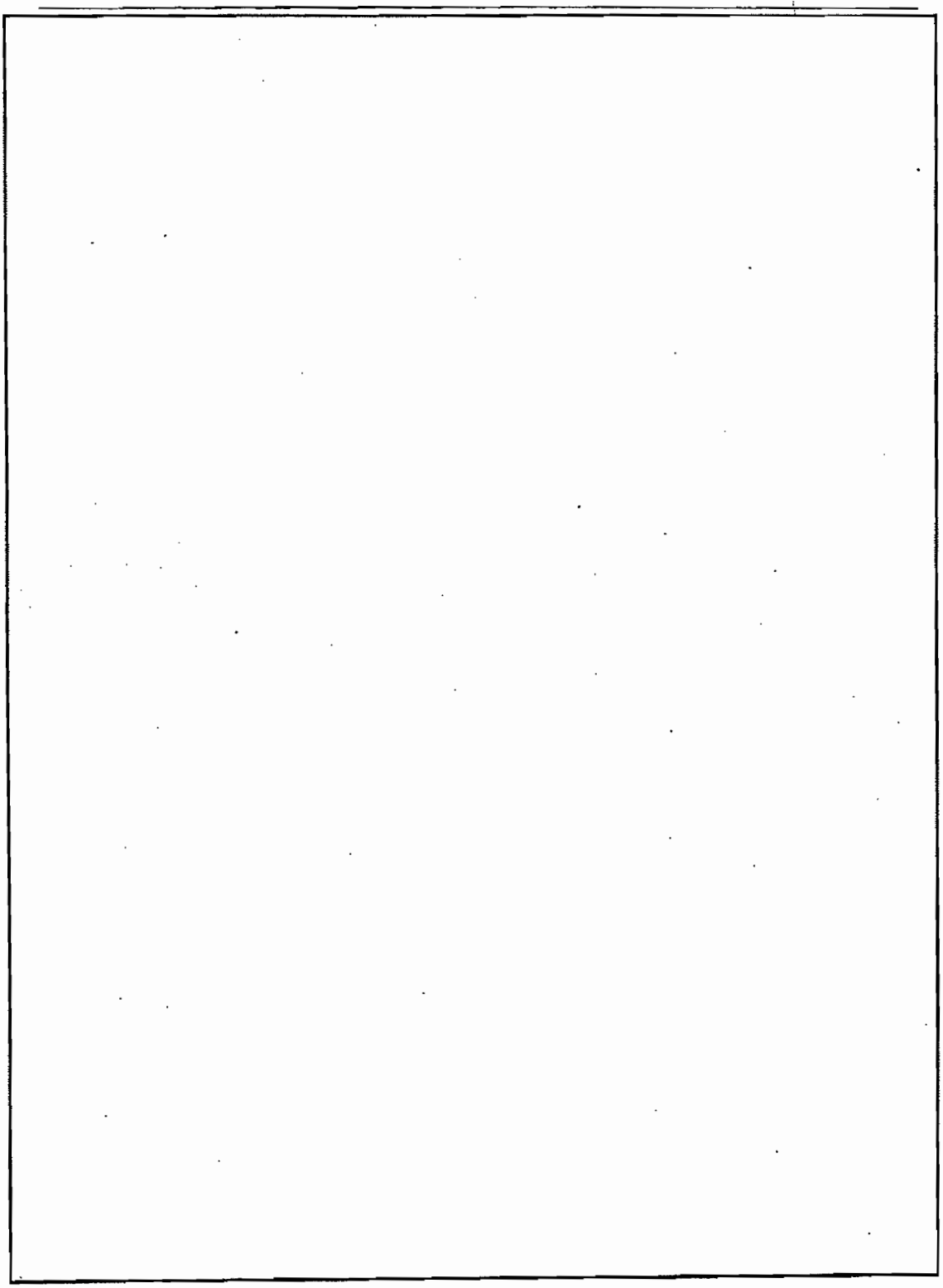
(b)(1)
(b)(3)-P.L. 86-36

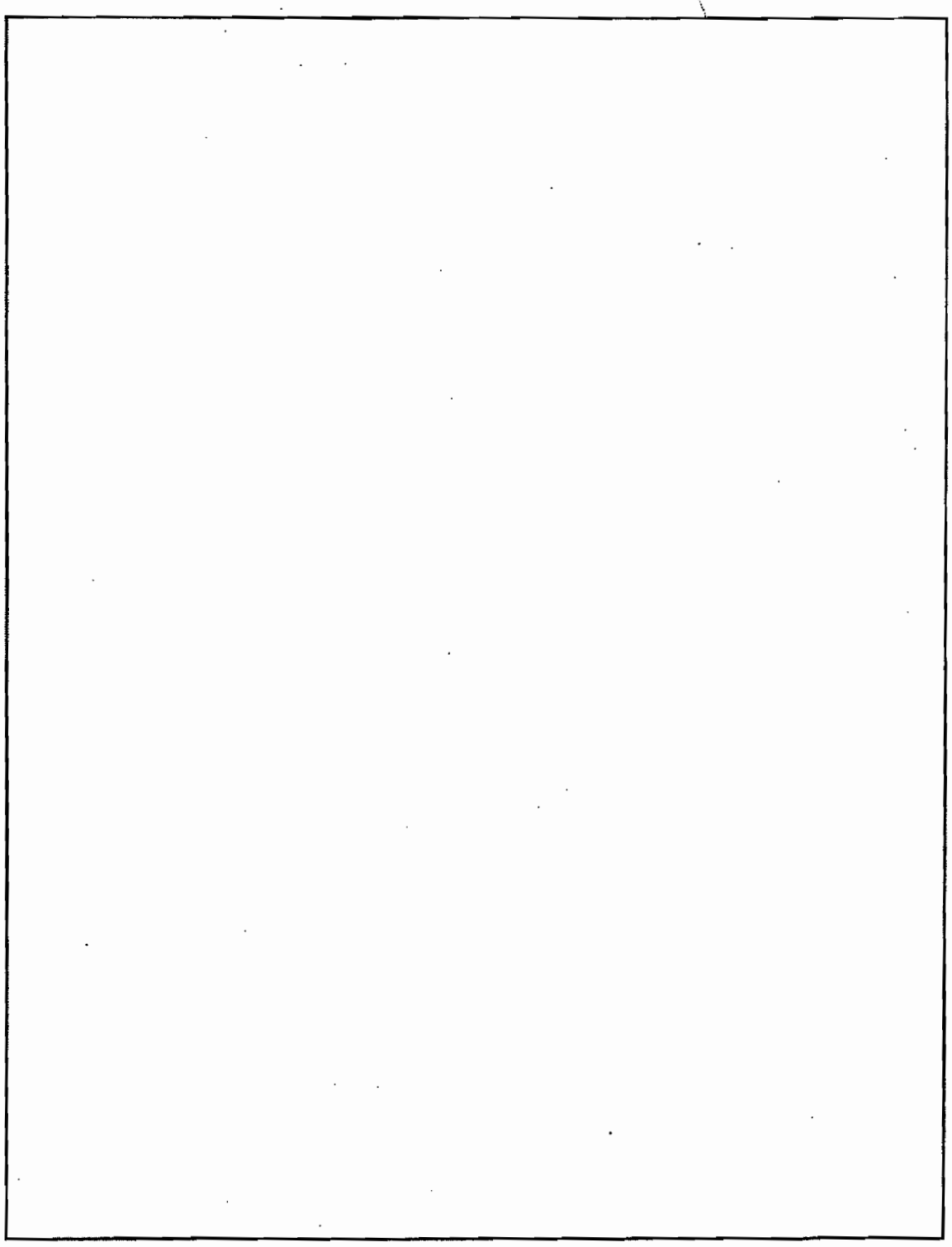
[redacted]

~~(S//SI)~~ **Management Comments.** NSA stated that the draft report omitted critical information [redacted]

[redacted]

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36





~~(C)~~ **Management Comments.** TRAILBLAZER welcomes an open review of

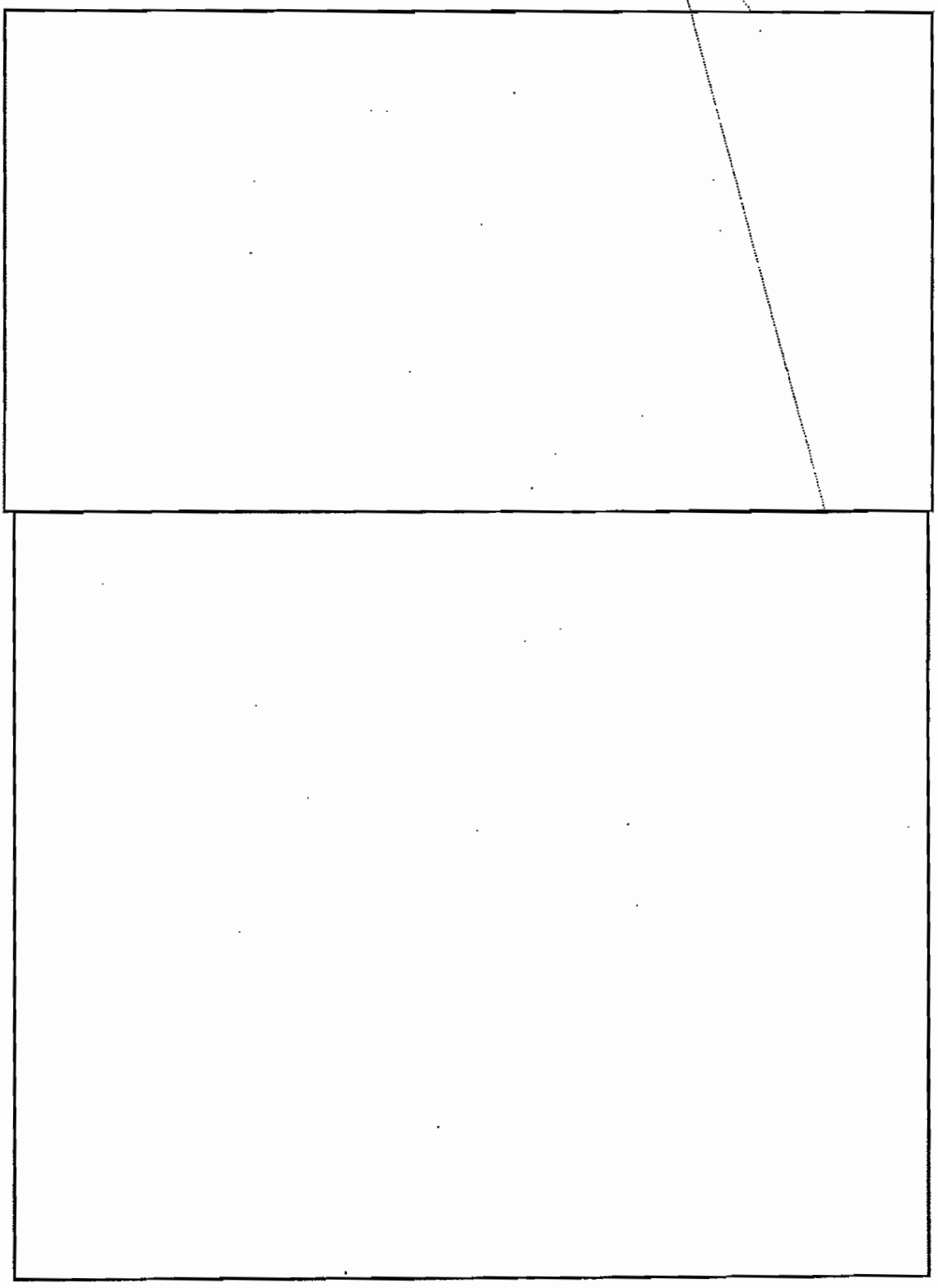
[redacted]

~~(S//SI)~~ **Management Comments.** NSA management does not agree with the DoD Office of Inspector General's assessment [redacted]

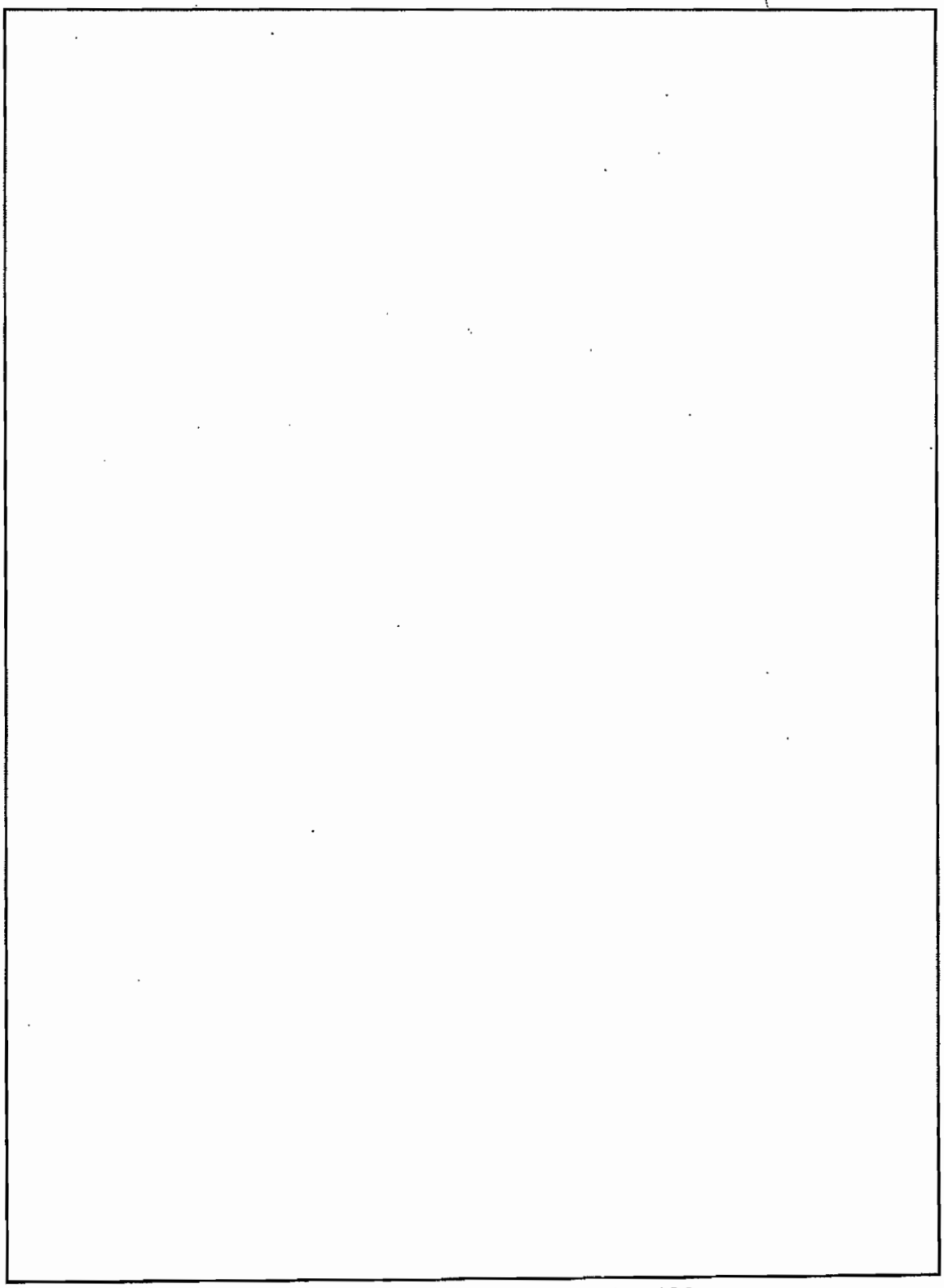
[redacted]

~~(S//SI)~~ **Audit Response.** We acknowledge the fact that the current scope of the TRAILBLAZER is to provide the information technology framework for the entire

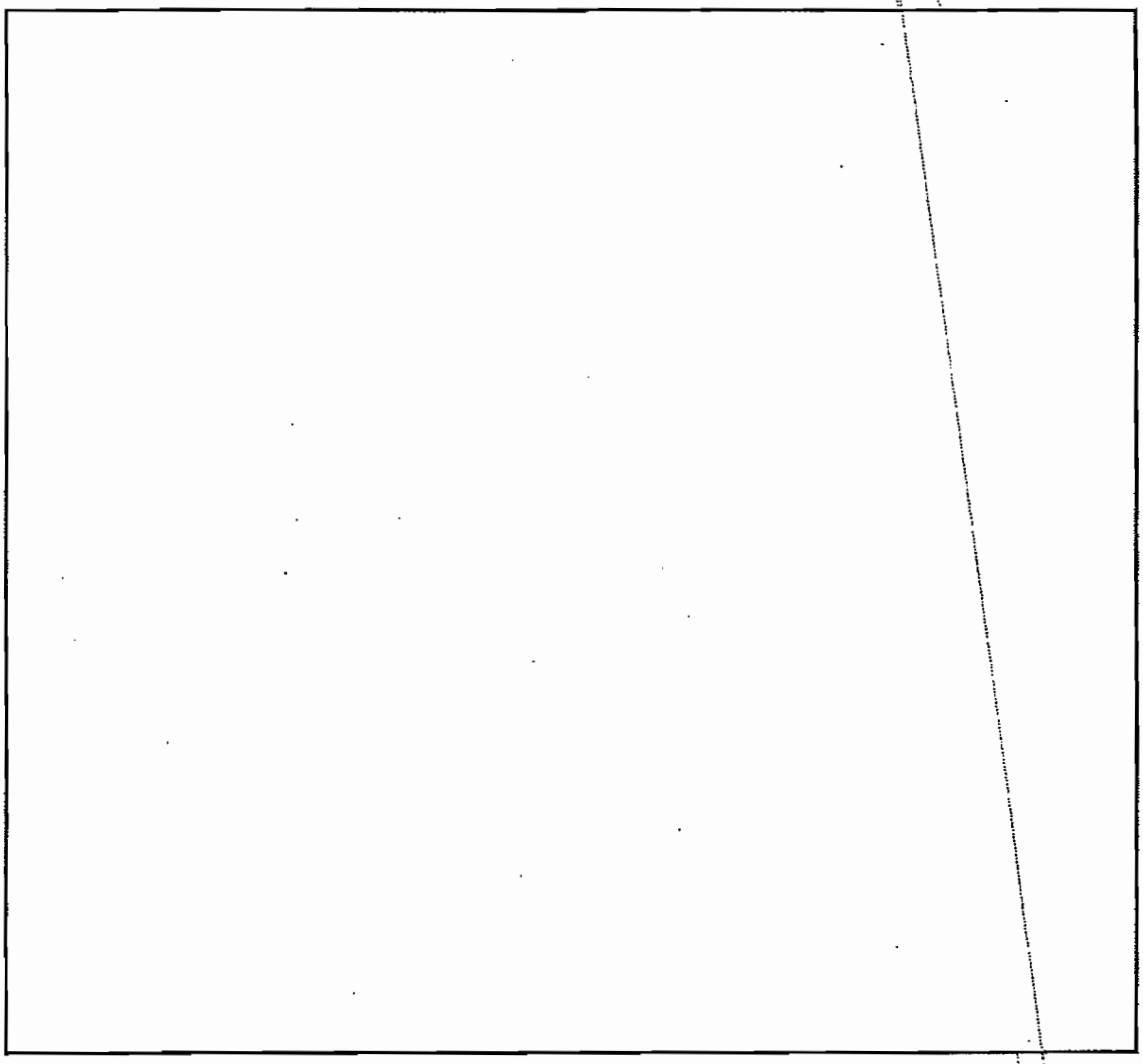
(b)(1)
(b)(3)-P.L. 86-36



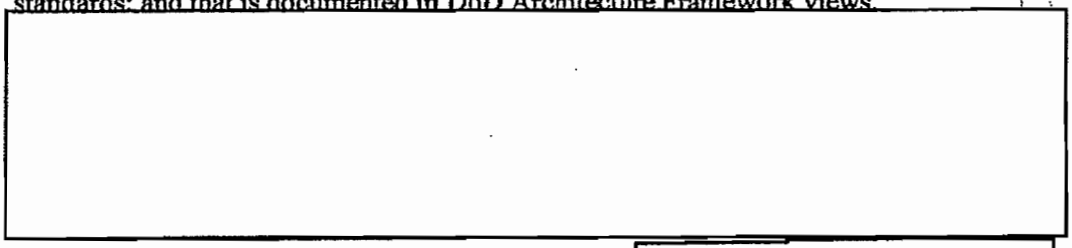
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



~~(C)~~ **Management Comments.** NSA managements stated that TRAILBLAZER and the Technology Demonstration Platform have invested considerable effort to build a signal intelligence architecture that is open and scaleable, applies DoD, commercial, and NSA standards; and that is documented in DoD Architecture Framework views.



~~(C)~~ **Audit Response.** NSA comments are inaccurate. Information that we reviewed and previous Inspector General reports show that the NSA acquisition processes is not always consistent with the

(C) guidelines of DoD Directive 5000.2.

(S//SI) **Management Comments.** NSA management comments stated that the Executive Summary's assertion that NSA "disregarded solutions to urgent national security needs" is not accurate.

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

(S//SI) **Audit Response.** NSA comments are inaccurate. Major issues raised in the management comments are addressed in the report, specifically the issue of

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(C)~~ **Management Comments.** NSA management stated that the DoD Inspector General Report's citation of the NTA Study's recommendation [redacted] also needs clarification. [redacted]

~~(C)~~ **Management Comments.** NSA management comments stated that although the Executive Summary indicated that TRAILBLAZER [redacted]

(U//~~FOUO~~) Management Comments. NSA management comments stated that the TRAILBLAZER has long-established plans for external assessment of the Technology Demonstration Platform for preparation for Milestone B. The Independent Verification and Validation (IV&V) of 29 Evaluation Criteria is being conducted by NSA's independent Office of Corporate Assessments' Test and Technical Evaluation element (TTE). The Early Operational Assessment and Operational Assessment will be performed by JITC, which had established a presence in TRAILBLAZER spaces by November 2003. Results of both activities will be provided to the Milestone Decision Authority before Milestone B.

(U//~~FOUO~~) Audit Response. TRAILBLAZER postponed Milestone B scheduled for December 2004 because of technical issues with the Technology Demonstration Platform. February 2005 is the earliest date that TRAILBLAZER will be ready for MILESTONE B.

(U//~~FOUO~~) Management Comments. NSA management comments stated that the results of the independent assessment of [redacted] will be provided to the MDA by Milestone B, currently scheduled for December 2004.

(~~S//SI~~) Management Comments. NSA management comments stated that the Executive Summary's statement that TRAILBLAZER development "wasted [redacted]

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(S//SI)~~ of dollars" is not accurate. As the NTA Modernization Study observed, TRAILBLAZER is not only about digital network exploitation, but also encompasses cultural transformation (people, processes, and policies) [redacted] And, although TRAILBLAZER is currently in the developmental phase, it has already delivered significant capabilities.

~~(S//SI)~~ **Audit Response.** The NSA management comments are inaccurate. The report Executive Summary does not claim that TRAILBLAZER development "wasted [redacted] of dollars." Instead, this phrase is only used to accurately describe the specific hotline complaint allegation that initiated this audit.

[redacted]

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

[redacted]

(C) **Management Comments.** NSA management comments also questions the Executive Summary's statement that "NSA modified or suppressed studies and [redacted] and stated that the audit report did not identify where the information was obtained.

(C) **Audit Response.** We have documented information to support this statement; however, because of fear of reprisal, we agreed to keep the sources anonymous.

(~~S//SI~~) **Management Comments.** The Office of Inspector General Report's citations of [redacted] were also incomplete and contained inaccuracies. The presentation of the results of the [redacted]

(b) (1)
(b) (3)-50 USC 403
(b) (3)-P.L. 86-36

[redacted]

~~(C)~~ **Audit Response.** Our wording reflects information received from our sources. We reviewed all of the comments below and checked our sources and made adjustments as required.

[redacted]

Appendix K. Report Distribution (U)

(U)

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
Under Secretary of Defense (Comptroller)
Under Secretary of Defense for Intelligence
Assistant Secretary of Defense for Networks and Information Integration

Other Defense Organization

Director, National Security Agency
Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency
Inspector General, National Geospatial-Intelligence Agency
Inspector General, National Reconnaissance Office

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Select Committee on Intelligence
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Permanent Select Committee on Intelligence

(U)

National Security Agency/Central Security Service Comments (U)

~~TOP SECRET//COMINT//X1~~
NATIONAL SECURITY AGENCY
CENTRAL SECURITY SERVICE
FORT GEORGE G. MEADE, MARYLAND 20755-6000

13 August 2004

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE
ATTN: Deputy Assistant Inspector General for Intelligence Audits

SUBJECT: (U) Audit of the Requirements for the TRAILBLAZER and THINTHREAD Systems, dated June 18, 2004 (Project No. D2003AL-0100)

(U//~~FOUO~~) Thank you for the opportunity to review and comment on the referenced draft report. Consolidated management comments from our Signals Intelligence Directorate (SID), Acquisition Organization (DA) and Information Technology Infrastructure Services Organization (ITIS) are enclosed. In addition, per your request, a security classification review of the draft report is enclosed. If you have any questions or need additional information, please contac

(b)(3)-P.L. 86-36

Deputy Chief of Staff

Encl:
a/s

~~This memorandum may be declassified and marked "UNCLASSIFIED//FOR OFFICIAL USE ONLY" upon removal of enclosure(s).~~

Derived From: ~~NSA/CSSM 123-2~~
Dated: ~~24 Feb 1998~~
Declassify On: ~~X1~~

~~TOP SECRET//COMINT//X1~~

~~TOP SECRET//COMINT//X1~~

(U) Audit of the Requirements for the TRAILBLAZER and THINTHREAD Systems

(U//~~FOUO~~) Project No. D2003AL-0100

~~(C)~~ This paper contains responses to recommendations made by the DoD OIG Audit of the Requirements for the TRAILBLAZER and THINTHREAD Systems (Project No. D2003AL-0100). It also includes discussion of key comments from the OIG report that NSA feels obligated to address.

~~(S//SI)~~ A significant point of departure among OIG Report assertions and NSA understanding, reflected within NSA's responses below, concerns [redacted]

[redacted]

~~(C)~~ Although NSA will agree to conduct an independent assessment of TRAILBLAZER [redacted] we believe that it will validate all of the assertions made in our responses to the OIG recommendations. Furthermore, we do not agree with the original Hot Line complaint that fraud, waste, and abuse occurred during the [redacted] which was conducted in an open fashion to provide the best benefit for Agency mission and customers. More importantly, there has been no evidence documented during this OIG investigation that supports that complaint.

[redacted]

DRV FM: ~~NSA/CSSM 123-2~~
~~Dated: 24 Feb 98~~
~~DECL ON: X1~~

~~TOP SECRET//COMINT//X1~~
1

(b)(1)
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//FOUO) Project No. D2003AL-0100

~~(S//SI)~~ DoD OIG Recommendation A.1:

(U) NSA Response: Nonconcur

(b)(1)
(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//FOUO) Project No. D2003AL-0100

[redacted]

(C) NSA recommends that the following items be highlighted within the OIG Project Report:

- NSA cooperates with and responds to Congress;
- THINTHREAD capability is valued by NSA;

[redacted]

(U) Target Date of Completion: Complete.

[redacted]

(b)(1)
(b)(3)-P.L. 86-36

Final Report Reference

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0100

~~(S//SI)~~ DoD OIG Recommendation A.2:

Revised pg. 25

(U) NSA Response: Nonconcur

~~TOP SECRET//COMINT//X1~~

(b)(1)
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0100

~~(TS//SI)~~ The OIG Report omits an absolutely critical element:

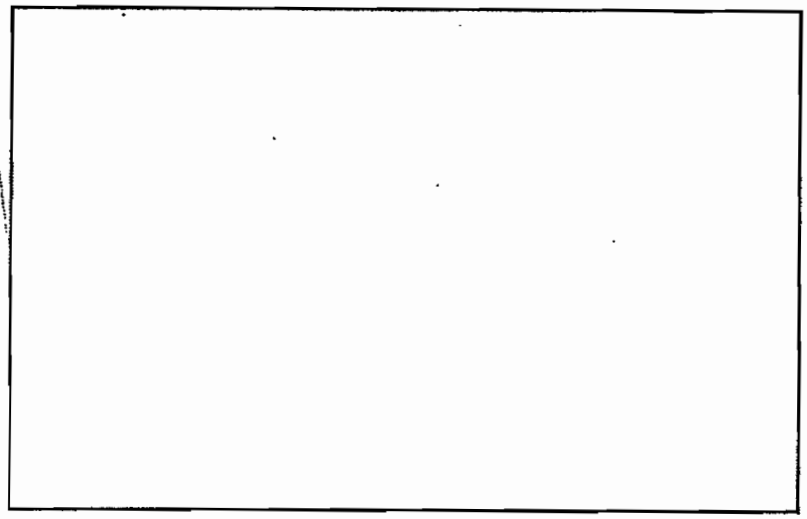
~~(S)~~ The OIG Report omits another critical element:
is not defined. NSA believes that

~~TOP SECRET//COMINT//X1~~
5

(b)(1)
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0100



(U) Target Date of Completion: Complete.

(b)(1)
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO) Project No. D2003AL-0100~~

~~(C) DoD OIG Recommendation A.3:~~

(U) NSA Response: Concur

(U) Target Date of Completion: Complete.

(b)(1)
(b)(3)-P.L. 86-36

Final Report Reference

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0100

~~(C)~~ DoD OIG Recommendation B.1: Designate a team to assess the ability of [redacted]

Revised p.35

(U) NSA Response: Concur, with comments

~~(C)~~ TRAILBLAZER welcomes an open review of [redacted]

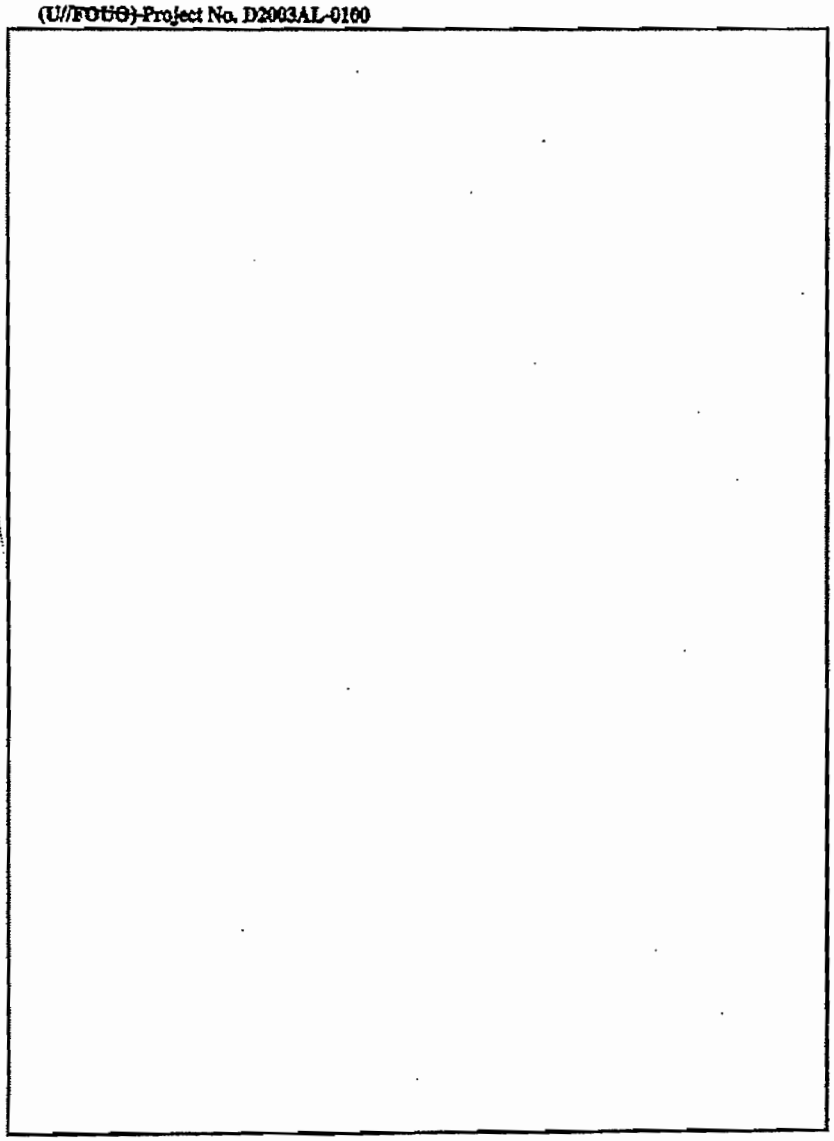
(U//~~FOUO~~) At this time, it is necessary to address some misconceptions in the DoD OIG's Executive Summary and Draft Report, as follows:

1. ~~(S//SI)~~ First, NSA does not agree with the DoD OIG's assessment [redacted]

(b)(1)
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO) Project No. D2003AL-0160~~



~~TOP SECRET//COMINT//X1~~
9

(b)(1)
(b)(3)-P.L. 86-36

Final report Reference

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO)~~ Project No. D2003AL-0100

[redacted]

- ~~(C)~~ SIGINT Architecture and Documentation: TRAILBLAZER and TDP have invested considerable effort to build a SIGINT architecture that is consistent with current DoD emphasis on open architecture and scalability, that applies DoD/commercial/NSA standards, and that is documented in DoD Architecture Framework (DoDAF) architecture views. [redacted]

[redacted]

page 77

2. ~~(S//SI)~~ The Executive Summary's assertion that NSA "disregarded solutions to urgent national security needs" is not accurate. [redacted]

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0100

[redacted]

3. (~~C~~) The OIG Report's citation of the NTA Study's recommendation [redacted] also must be clarified.

4. (~~C~~) Although the Executive Summary indicated that TRAILBLAZER [redacted]

(U//~~FOUO~~) Target Date of completion: Milestone B is currently scheduled for December 2004.

Final Report Reference

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0160

(U//~~FOUO~~) DoD OIG Recommendation B.2: Provide the results of the external assessment to the TRAILBLAZER Technology Demonstration Platform Milestone Decision Authority for use in making the Milestone B decision.

(U) NSA Response: Concur

(U//~~FOUO~~) As mentioned in the response to Recommendation B.1, the PEO and TRAILBLAZER intend to provide the results of the independent assessment to the TRAILBLAZER Milestone Decision Authority (MDA) for use in making the Milestone B decision. These results will also be sent to the DoD IG, the NSA IG, and NSA's Office of General Counsel.

(U//~~FOUO~~) It should also be noted that TRAILBLAZER has long-established plans for external assessment of the TDP for preparation for Milestone B. The Independent Verification and Validation (IV&V) of 29 Evaluation Criteria is being conducted by NSA's independent Office of Corporate Assessments' Test and Technical Evaluation element (TTE). The Early Operational Assessment and Operational Assessment will be performed by JITC, which had established a presence in TRAILBLAZER spaces by November 2003. Results of both activities will be provided to the Milestone Decision Authority before Milestone B.

(b)(1)
(b)(3)-50
USC 403
(b)(3)-P.L.
86-36

~~(C) Target Date of completion:~~ Results of the independent assessment of [redacted] will be provided to the MDA by Milestone B, currently scheduled for December 2004.

~~(C) DoD OIG Recommendation B.3:~~ [redacted]

Revised p.35

(U) NSA Response: Concur

[redacted]

(U//~~FOUO~~) ~~Target Date of completion:~~ This action will be completed by the Milestone B target date, currently scheduled for December 2004.

~~TOP SECRET//COMINT//X1~~
12

(b) (1)
(b) (3)-50
USC 403
(b) (3)-P.L.
86-36

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-6100

(U) Comments on DoD IG Audit of Requirements for the TRAILBLAZER and THINTHREAD Systems
Project No. D2003AL-6100

(U//~~FOUO~~) The following comments address technical and editorial items of concern in the subject Project Report.

1. (~~S//SI~~) The Executive Summary's statement that TRAILBLAZER development "wasted [redacted] of dollars" is not accurate. As the NTA Modernization Study observed, TRAILBLAZER is not only about digital network exploitation, but also encompasses cultural transformation (people, processes, and policies) [redacted] And, although TRAILBLAZER is currently in the developmental phase, it has already delivered significant capabilities, such as:

[redacted]

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0100

2. (~~C~~) TRAILBLAZER also questions the Executive Summary's statement that "NSA modified or suppressed studies and TRAILBLAZER has seen no evidence of either modification or suppression. It is not clear where this statement originated.

3. (~~S//SI~~) The OIG Report's citations of were also incomplete and contained inaccuracies. The presentation of the results of the

~~TOP SECRET//COMINT//X1~~

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

(U//~~FOUO~~) Project No. D2003AL-0180

[redacted]

4. (U//~~FOUO~~) It should be noted that Initial Operating Capability of the TRAILBLAZER [redacted] is FY2005, rather than FY2009 (as stated in page 1 of the Draft OIG report). Finally, the NSA IG concerns about the Program Engineering and Business Management contract mentioned in Appendix A did not center on TRAILBLAZER-specific practices but rather those of [redacted] Front Office. These issues have since been addressed by NSA management.

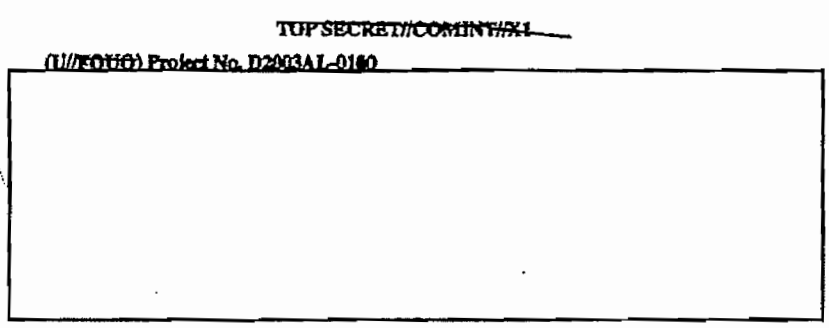
(b)(3)-P.L. 86-36

[redacted]

(b)(1)
(b)(3)-50 USC
403
(b)(3)-P.L.
86-36

~~TOP SECRET//COMINT//X1~~

(U//FOUO) Project No. D2003AL-0160



~~TOP SECRET//COMINT//X1~~

ANNEX A

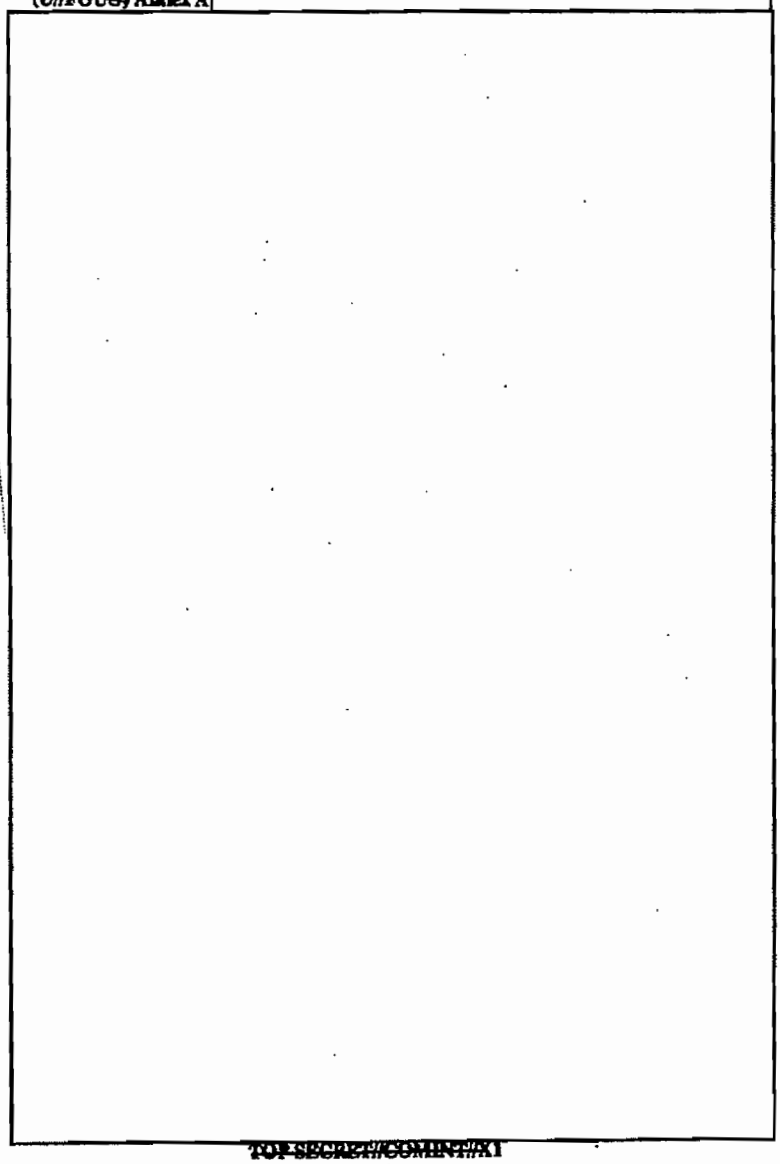
(U//~~FOUO~~) ANNEX A: [redacted] (b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO)~~ Annex A

(b)(3)-P.L. 86-36

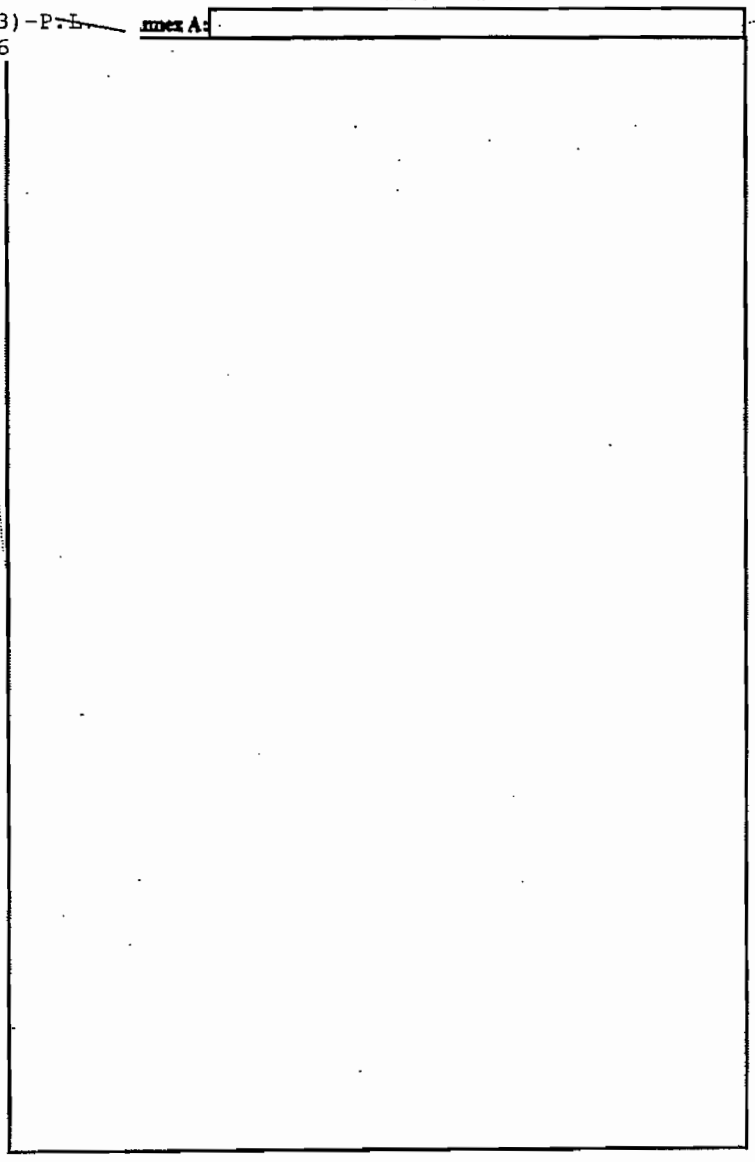


(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~Annex A:~~

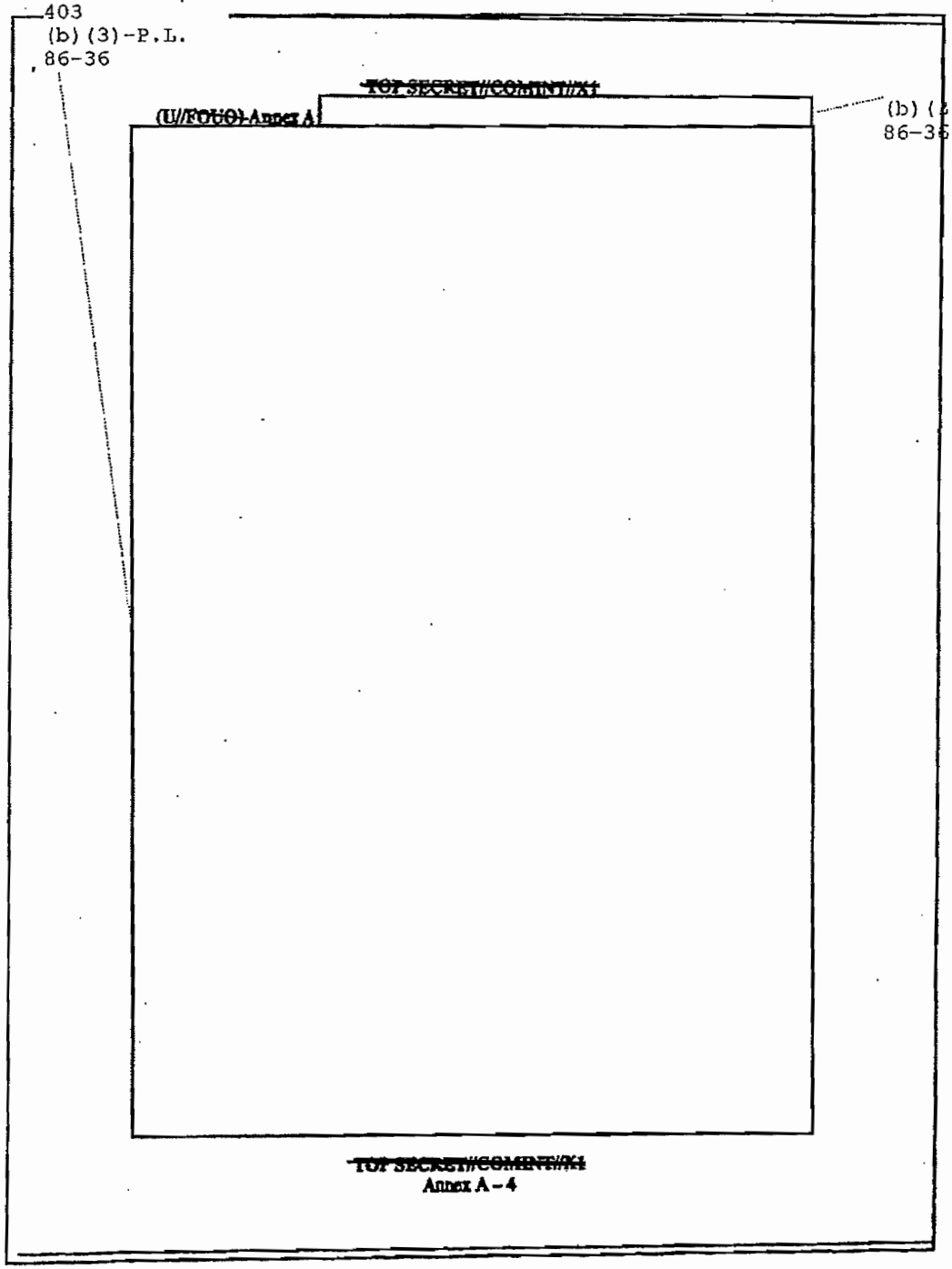
(b)(3)-P.L. 86-36



~~TOP SECRET//COMINT//X1~~

Annex A – 3

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



Annex A – 4

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~(U//FOUO) Annex A~~

(b)(3)-P.L. 86-36

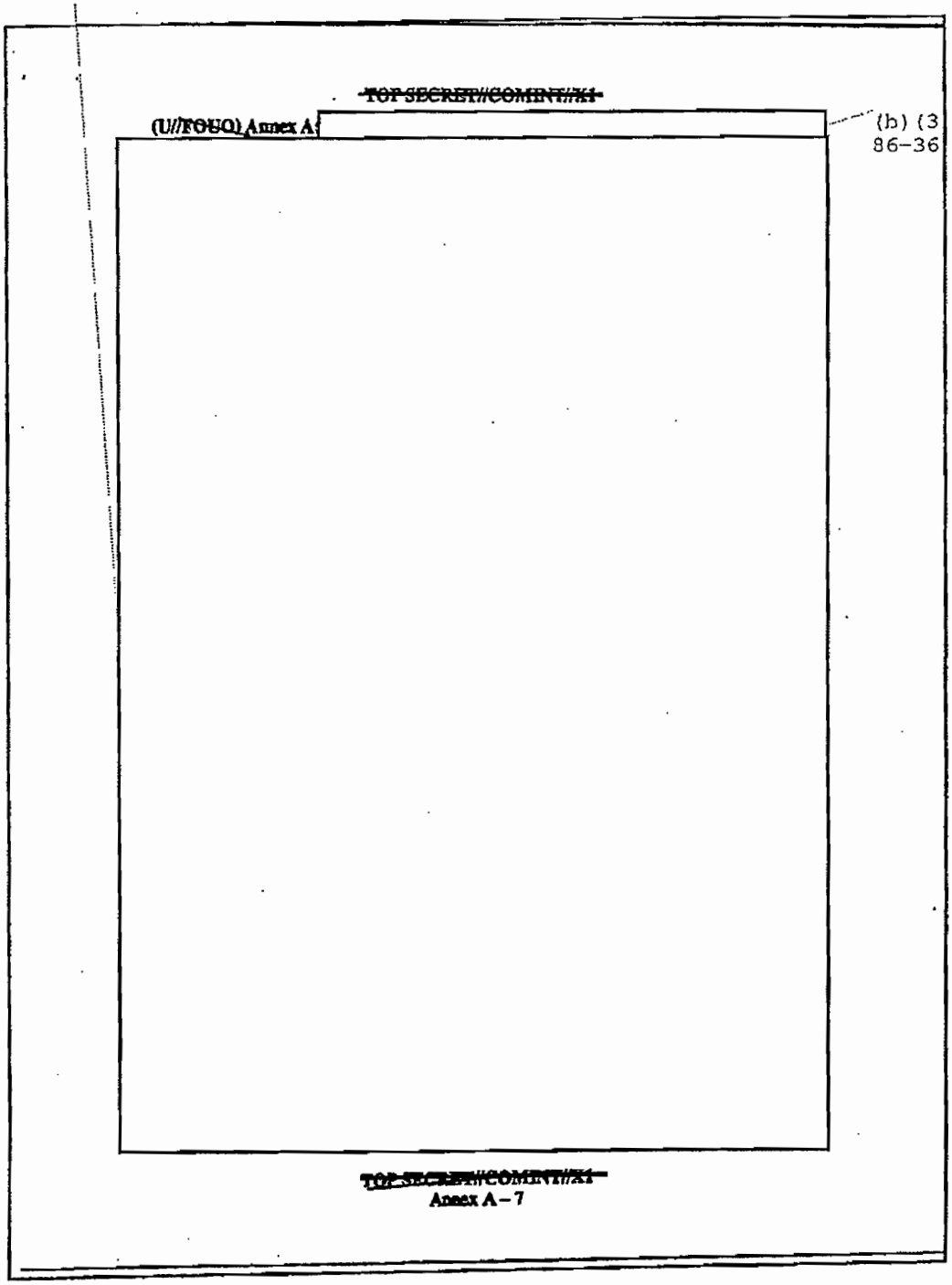
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO)~~ Annex A:

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC
403
(b)(3)-P.L.
86-36

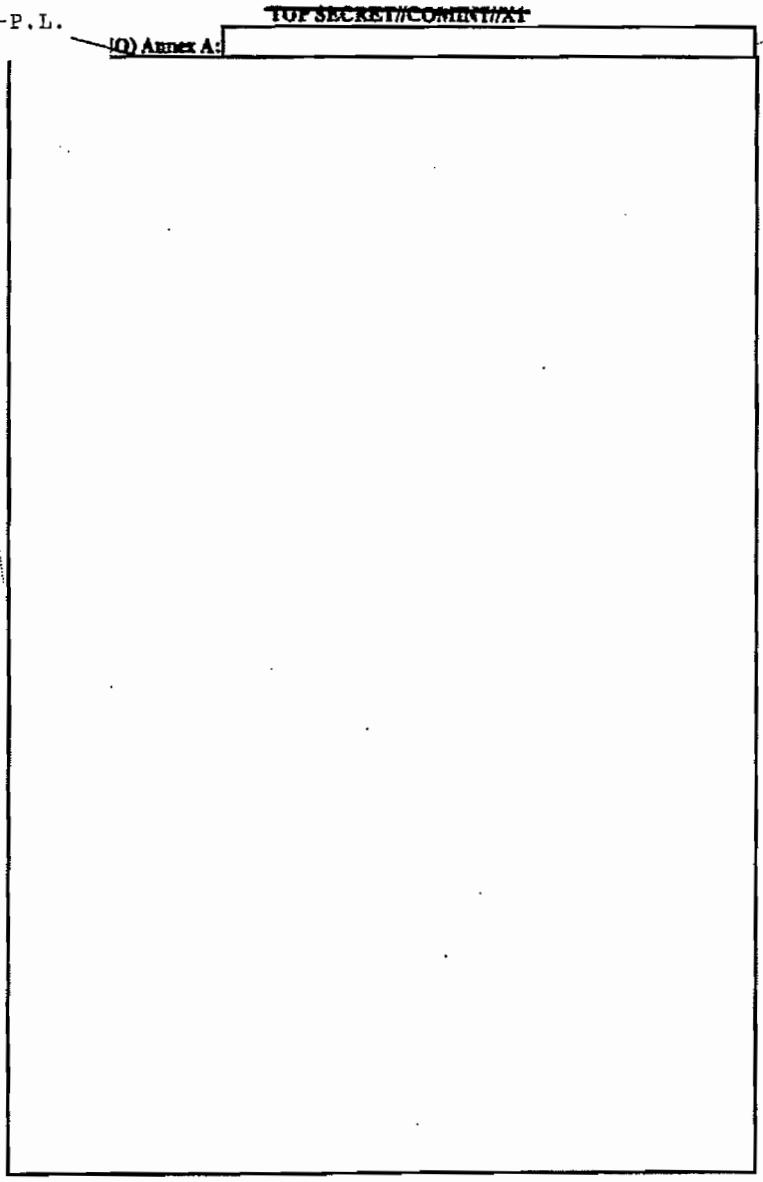


(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

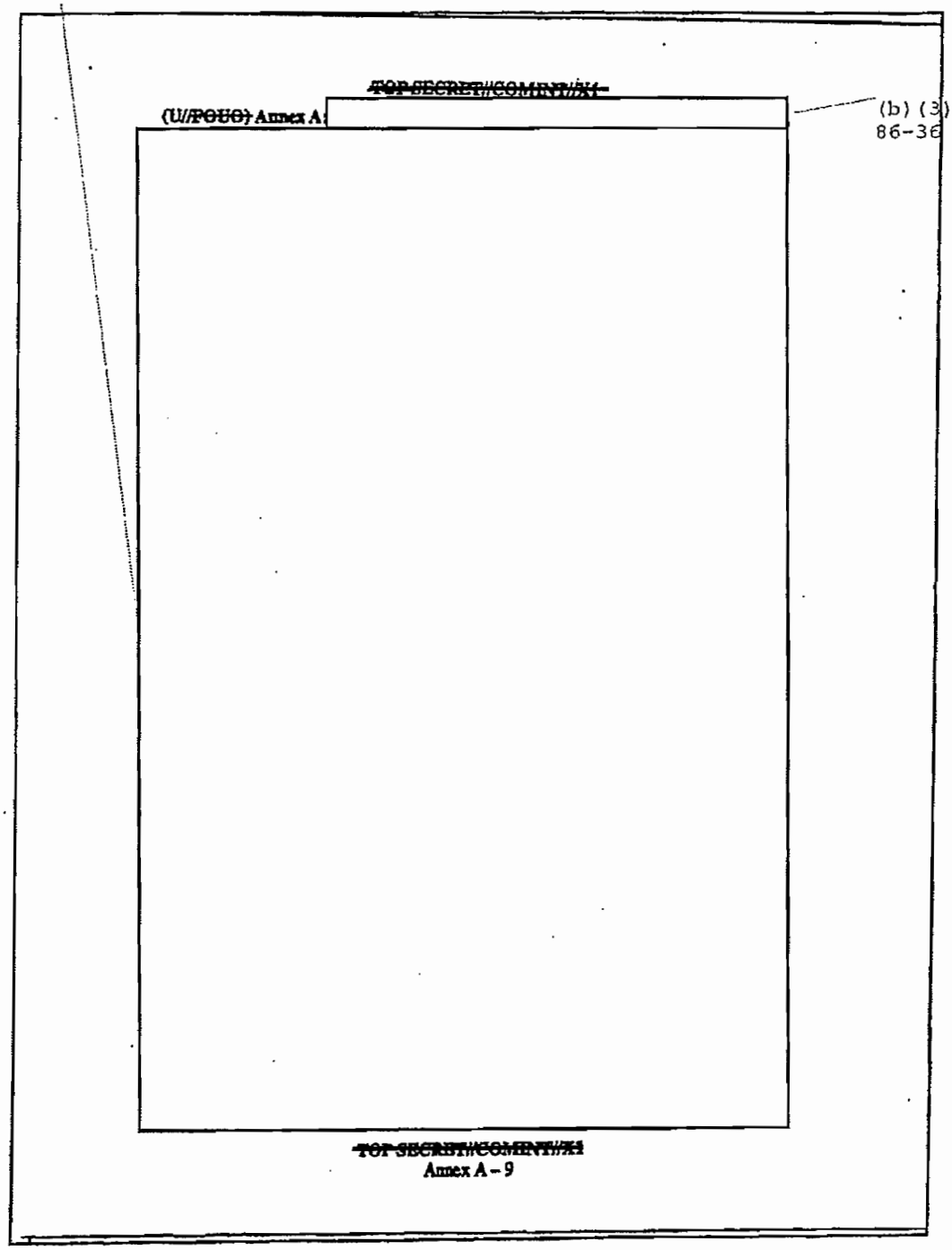
~~TOP SECRET//COMINT//X1~~

(Q) Annex A:

(b)(3)-P.L. 86-36



(b)(1)
(b)(3)-50 USC
403
(b)(3)-P.L.
86-36

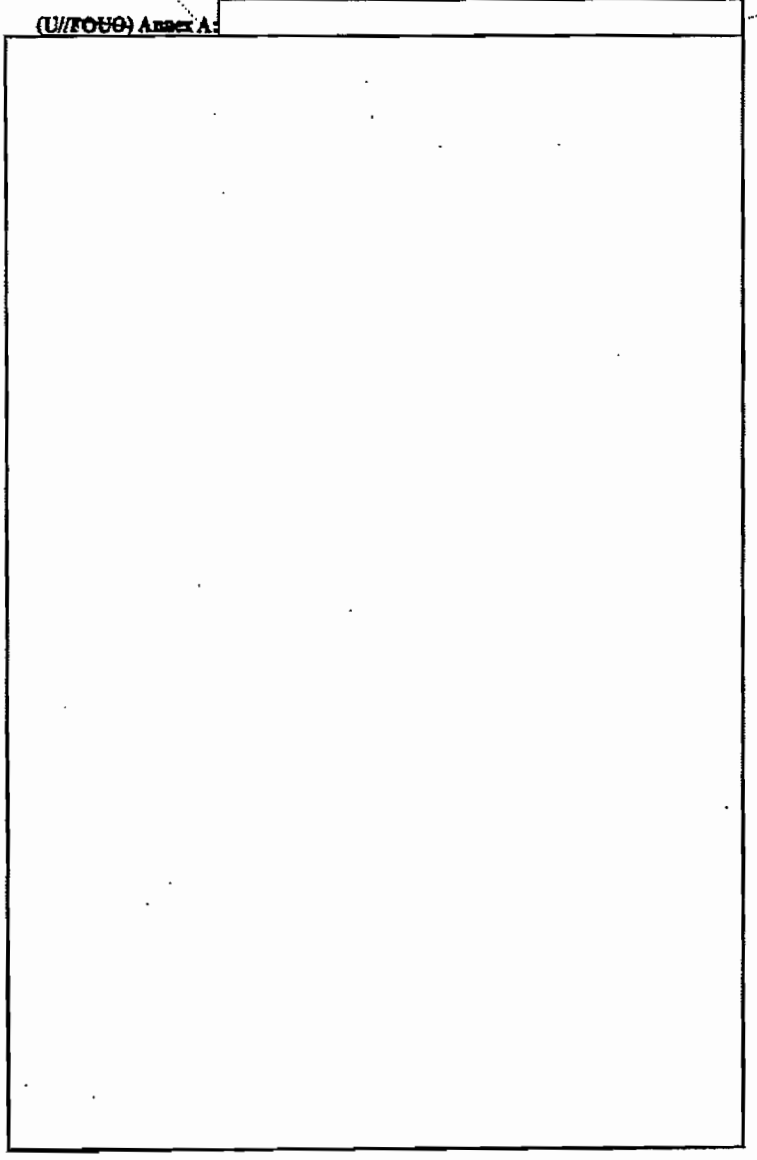


(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO) Annex A:~~

(b)(3)-P.L. 86-36



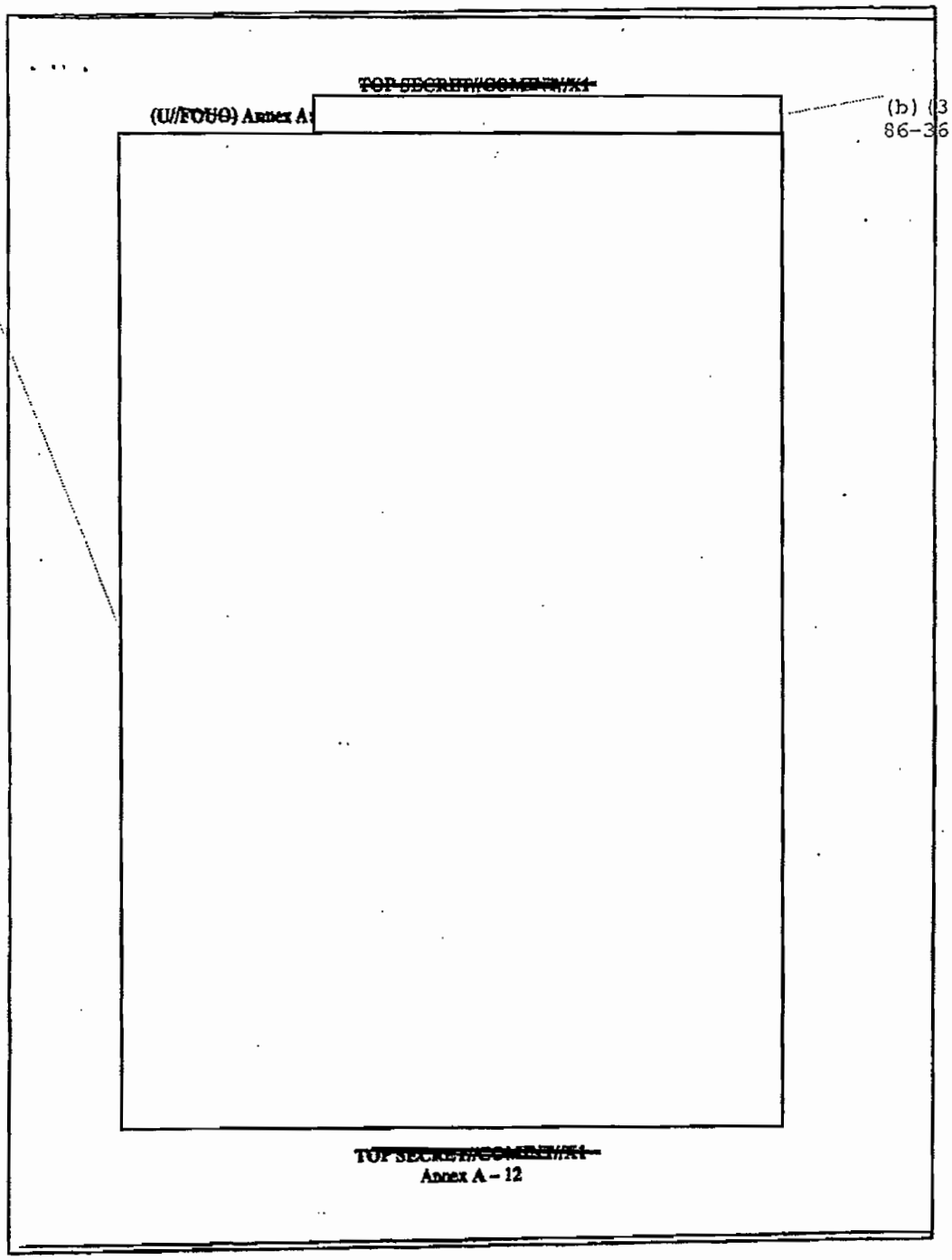
(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36

~~TOP SECRET//COMINT//X1~~

~~(U//FOUO)~~ Annex A:

(b)(3)-P.L. 86-36

(b)(1)
(b)(3)-50 USC 403
(b)(3)-P.L. 86-36



~~TOP SECRET//COMINT//X1~~

ANNEX B

(U//FOUO) ANNEX B: [redacted] (b) (3) -P.L. 86-36

(b)(1)
(b)(3)-50 USC
403
(b)(3)-P.L.
86-36

~~TOP SECRET//COMINT//X1~~

(U//FOUO) Annex B:

(U//FOUO) The following table lists

(b)(3)-P.L.
86-36

THIS PAGE INTENTIONALLY LEFT BLANK (U)

~~DOCID: 3853346~~

~~CONFIDENTIAL//20291123~~

SECURITY CLASSIFICATION

RF/K
cc: DI 3

NSA STAFF PROCESSING FORM

TO	EXREG CONTROL NUMBER	KCC CONTROL NUMBER
CoS	[illegible]	DC09-017-05

THRU	ACTION	EXREG SUSPENSE
	☐ APPROVAL	
SUBJECT	☒ SIGNATURE	KCC SUSPENSE
(U) ~~(TOP SECRET//COMINT)~~ Office of the IG of the Department of Defense Report on TRAILBLAZER and THINTHREAD Systems	☐ INFORMATION	ELEMENT SUSPENSE

DISTRIBUTION

SUMMARY (U)

PURPOSE: ~~(CONFIDENTIAL//20291123)~~ Attached for your review and signature is the NSA consolidated response to the report from the DoD OIG on requirements for TRAILBLAZER and THINTHREAD systems.

Encl:
a/s

(b)(3)-P.L. 86-36

COORDINATION/APPROVAL

OFFICE	NAME AND DATE	SECURE PHONE	OFFICE	NAME AND DATE	SECURE PHONE
[redacted]	[redacted]	x3825			
	11/05	x5606			
	11 Feb 05	x3200			
		[illegible]			

ORIGINATOR	ORG.	PHONE (Secure)	DATE PREPARED
[redacted]	DC09	963-5021	11 February 2005

FORM A6796 REV NOV 95
(Supersedes A6796 FEB 94 which is obsolete)
NSN: 7540-FM-001-5465

Derived From: NSA/CSSM 1-52 DATED: 23 November 2004
Declassify On: 20291123

SECURITY CLASSIFICATION
~~CONFIDENTIAL//20291123~~

~~DOCID: 3253346~~

~~CONFIDENTIAL//20291123~~

NATIONAL SECURITY AGENCY
FORT GEORGE G. MEADE, MARYLAND 20755-6000

11 February 2005

MEMORANDUM FOR DEPUTY ASSISTANT INSPECTOR GENERAL FOR INTELLIGENCE AUDITS

SUBJECT: (U//~~FOUO~~) DoD OIG Audit Report Requirements for the TRAILBLAZER and THINTHREAD Systems, dated December 15, 2004 (Report 05-INTEL-03, Project No. D2003AL-0100) – INFORMATION MEMORANDUM

(U//~~FOUO~~) In response to the DoD OIG request for additional information on the TRAILBLAZER and THINTHREAD report, NSA/CSS provides consolidated corporate comments from our Signals Intelligence Directorate, Acquisition Organization, and Information Technology Infrastructure Services Organization (now the Information Technology Directorate).

NSA/CSS Response:

[redacted]

~~(C)~~ Subsequent to the DoD OIG report, the TRAILBLAZER Milestone has been scheduled for late in the fourth quarter of FY05 from the previously scheduled earlier MS B. Accordingly, this now allows sufficient time for the conduct of the assessment recommended by the DoD OIG. As costs for the assessment will be covered by the PEO and due to the revised schedule, [redacted] The assessment will be finalized by May 2005.

If you have any questions or need additional information, please contact [redacted]

(b) (1)
(b) (3)-P.L. 86-36

Maria N. O'Connor

MARIA N. O'CONNOR
Chief of Staff

(b) (3)-P.L. 86-36

~~Derived From: NSA/CSSM 1-52~~
~~Dated: 23 November 2004~~
~~Declassify On: 20291123~~

~~CONFIDENTIAL//20291123~~

~~DOCID: 3253346~~ ~~UNCLASSIFIED~~

SECURITY CLASSIFICATION

NSA STAFF PROCESSING FORM

TO DC09	EXREG CONTROL NUMBER	KCC CONTROL NUMBER DA4-04-05	
THRU SAE ~~N~~ D/SAE		ACTION [X] APPROVAL	EXREG SUSPENSE
SUBJECT (U//~~FOUO~~) THINTHREAD / TRAILBLAZER IG AUDIT REPORT		[X] SIGNATURE	KCC SUSPENSE
		[ ] INFORMATION	ELEMENT SUSPENSE
DISTRIBUTION			

SUMMARY

PURPOSE:

(U//~~FOUO~~) To provide the recommended PEO input to the consolidated NSA response regarding actions requested by the "final" Department of Defense (DoD) Office of Inspector General (OIG) report 05-INTEL-03, Requirements for TRAILBLAZER and THINTHREAD Systems of 15 December 2004.

(b)(3)-P.L. 86-36

BACKGROUND / DISCUSSION:

(U//~~FOUO~~) In their June '04 Draft of the Audit Report, the DoD OIG made the following recommendation, "Designate a team to assess [redacted] the operational requirements of the TRAILBLAZER Technology Demonstration Platform."

~~(C)~~ In response to this draft, in August, the Agency concurred "with comments." The following is an excerpt from those comments; " The Program Executive Office (PEO) is taking the lead in establishing an independent review team for performing this assessment, with the intention that its results will be completed in time [redacted] Milestone B documentation."

~~(C)~~ At the time of this statement (Aug '04), the TRAILBLAZER Milestone B (MSB) was scheduled for December '04. When the final report was published, the PEO Assessment had not yet begun. Concerned that the assessment could not be completed in time to support a December milestone, the DoD OIG requested via the final report, that they be provided; "NSA plans to eliminate the cost and schedule risks for completing the assessment."

~~(C)~~ Since release of the final Audit Report, a DIRNSA-Chartered Transformational Advisory Panel (TAP) recommended TRAILBLAZER be rebaselined. The MSB is now planned for late Fourth Quarter FY05.

COORDINATION/APPROVAL

OFFICE	NAME AND DATE	SECURE PHONE	OFFICE	NAME AND DATE	SECURE PHONE
[redacted]	2/8/05	966 5220	[redacted]		963-1519
	2/8/05	963-8848			966 1527
		963-5644			
			POC: [redacted]		963-8675
[redacted]			ORG. DA4	PHONE (Secure) 963-7368	DATE PREPARED 8 February 2005

FORM A6796 REV NOV 95 (Supersedes A8796 FEB 94 which is obsolete) NSN: 7540-FM-001-5465

Derived From:

Declassify On: Page 1 of 2

SECURITY CLASSIFICATION ~~CONFIDENTIAL~~

(b)(3)-P.L. 86-36

(b) (3)-P.L. 86-36

(U//~~FOUO~~) The development of this response has been coordinated with [redacted] and the TRAILBLAZER Program Management Office.

RECOMMENDATION:

1. (U//~~FOUO~~) A formal Risk Mitigation Plan is not recommended. The PEO is committed to conducting the assessment. The team is currently being formed, a kick-off mtg is planned for March, and the team is expected to report to Mr. [redacted] NLT May 31st. The cost and schedule impact of conducting the assessment pose very low risk to the Transformational Programs.

2. (U//~~FOUO~~) Recommend the response, provided as an attachment, be forwarded to the DoD OIG as part of the Agency's consolidated response to the Final Report.

Team Members (U)

(U) The Office of the Deputy Inspector General for Intelligence of the Department of Defense, Intelligence-Audit prepared this report. Personnel of the Office of the Inspector General of the Department of Defense who contributed to the report are listed below.

(U)

Thomas F. Gimble

[redacted]

(U)

b(6)
Per DoD IG