

CNSSI No. 7000
May 2004



**(U//FOUO) TEMPEST
COUNTERMEASURES
FOR
FACILITIES**

~~DRY-FM. NSA/066M-120-2~~
~~Dated: 24 Feb 1998~~
~~DECL. ON: X1~~

Approved for Release by NSA on 09-25-2024, FOIA Case # 51573

Committee on National Security Systems



National Manager

FOREWORD

1. (U) Committee on National Security Systems Instruction (CNSSI) No. 7000, "TEMPEST Countermeasures for Facilities," establishes guidelines and procedures that shall be used by departments and agencies to determine the applicable TEMPEST countermeasures for national security systems. This document supersedes National Security Telecommunications and Information Systems Security Instruction (NSTISSI) 7000, "TEMPEST Countermeasures for Facilities," dated 29 November 1993.

2. (U) Representatives of the Committee on National Security Systems (CNSS) may obtain additional copies of this directive at the address listed below.

3. (U) U.S. Government contractors should contact their Contract Officer's Representative regarding distribution of this document. This document is not releasable to the Defense Technical Information Center.

/s/

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(U) TEMPEST COUNTERMEASURES FOR FACILITIES

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SECTION I - (U) BACKGROUND

1. (U) Electronic and electromechanical telecommunications and automated information processing equipment can produce unintentional information-bearing emanations, commonly known as TEMPEST. If intercepted and analyzed, these emanations may disclose classified or sensitive information transmitted, received, handled, or otherwise processed by the equipment.

2. (S) 

SECTION II - (U) PURPOSE AND SCOPE

3. (U) This instruction establishes guidelines and procedures to determine the applicable TEMPEST countermeasures for national security systems. This instruction applies to all federal departments and agencies and their agents, which include, but are not limited to, contractors, consultants, and licensees.

SECTION III - (U) REFERENCES

4. (U) The listed documents in ANNEX A supplement the information included in this document. U.S. Government personnel can request copies through their CNSS representative. Contractors should contact their Contracting Officer Representative.

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SECTION IV - (U) DEFINITIONS

5. (U) Definitions contained in NSTISSI No. 7002 (TEMPEST Glossary) and CNSSI 4009 (National Information Assurance (IA) Glossary) apply. For the purpose of this instruction, the following definitions also apply:

a. (U) Certified TEMPEST Technical Authority (CTTA) - An experienced, technically qualified U.S. government employee who has met established certification requirements in accordance with CNSS approved criteria and has been appointed by a U.S. Government Department or Agency to fulfill CTTA responsibilities. (See paragraph 12.)

b. (U) Inspectable Space - The three-dimensional space surrounding equipment that process classified and/or sensitive information within which TEMPEST exploitation is not considered practical or where legal authority to identify and remove a potential TEMPEST exploitation exists and is exercised. The CTTA shall determine the inspectable space for a facility.

c. ~~(U//FOUO)~~ Special Category Information - Information related to

[Redacted]

SECTION V - (U//FOUO) THREAT ENVIRONMENTS

6. ~~(S)~~ Outside the United States, the TEMPEST threat varies,

[Redacted]

a. ~~(S)~~ A High Threat Environment is one in which the

[Redacted]

b. ~~(S)~~ A Medium Threat Environment is one in which the

[Redacted]

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[Redacted]

c. ~~(S)~~ A Low Threat Environment is one in which a close [Redacted]

[Redacted]

7. ~~(C//REL)~~ Within the United States, its trust territories and possessions, [Redacted]

[Redacted]

a. ~~(C//REL)~~ [Redacted]

[Redacted]

b. ~~(C//REL)~~ [Redacted]

[Redacted]

SECTION VI - (U) REQUIREMENTS

8. (U) This instruction establishes the requirement to review the TEMPEST posture of certain facilities where national security information is processed. A CTTA must conduct or validate all TEMPEST countermeasure reviews required by this instruction. When the CTTA identifies the need to implement TEMPEST countermeasures at a specific facility, the CTTA shall determine the most cost-effective countermeasure that will contain compromising emanations within the inspectable space. The CTTA must ensure that countermeasures are implemented correctly. If the countermeasures are not implemented, the department or agency head or their designee must accept the risk of compromise in writing.

9. (U) Outside the United States:

a. ~~(C//REL)~~ Facilities located in a High Threat Environment require the highest security protection levels of TEMPEST countermeasures. [Redacted]

[Redacted]

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b. ~~(C//REL)~~ Facilities located in a Medium Threat Environment that process

[Redacted]

1.) ~~(C//REL)~~

[Redacted]

2.) ~~(C//REL)~~

[Redacted]

c. ~~(C//REL)~~ Facilities located in a Low Threat Environment

[Redacted]

1.) ~~(C//REL)~~

[Redacted]

2.) ~~(C//REL)~~

[Redacted]

10. ~~(C//REL)~~ Within the United States, its trust territories and possessions

[Redacted]

a. ~~(C//REL)~~

b. ~~(C//REL)~~

[Redacted]

1.) ~~(C//REL)~~

[Redacted]

2.) ~~(C//REL)~~

[Redacted]

11. (U) When a TEMPEST countermeasure review indicates the need to use equipment meeting national standards contained in NSTISSAM TEMPEST/1-92, every effort shall be made to use equipment listed on the Endorsed TEMPEST Products List (ETPL) or the NATO Recommended Products List (NRPL).

12. (U) A CTTA must meet the following certification requirements prior to being appointed by their department/agency. Their appointment will be submitted in writing by

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the sponsoring department/agency to the TEMPEST Advisory Group (TAG) for validation:

a. (U) Completion of CNSS approved technical training. Department/agency heads, in consultation with DIRNSA, may substitute documented technical equivalent experience for required technical training.

b. (U) Completion of three continuous years of TEMPEST technical experience, including at least one year of experience in evaluating TEMPEST vulnerabilities of operational facilities and determining TEMPEST countermeasures under the guidance of an appointed CTTA.

c. (U) Completion of mandatory CNSS approved training on the technical threat and the CTTA TEMPEST Countermeasures Application Course. (NCS Courses: Threat Evaluation for Certified TEMPEST Technical Authorities and Threat to Information Systems).

13. (U) CTTA appointments are valid for a three-year period. Every three years, the CTTA must attend and complete the mandatory CNSS approved training courses identified in paragraph 12c and be reappointed in writing by their sponsoring Department/Agency to the TAG.

14. (U) The CTTA shall determine the Inspectable Space for a facility.

15. (U) The CTTA shall maintain a record of all TEMPEST countermeasure reviews conducted.

SECTION VII - (U) COUNTERMEASURES

16. (S) [Redacted]

SECTION VIII - (U//FOUO) TEMPEST COUNTERMEASURE REVIEW

17. (U) The CTTA shall, as a minimum, evaluate the following factors when conducting TEMPEST countermeasure reviews:

a. (C//REL) Location - [Redacted]

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b. (U) Volume of Information Processed – Consider the percentage and volume of information processed at the UNCLASSIFIED, SENSITIVE, CONFIDENTIAL, SECRET, and TOP SECRET levels. Determine the number of pages, messages, screens, etc. for each of the above classification levels.

c. (U//~~FOUO~~) Sensitivity of Information Processed – Consider the sensitivity of the information being processed by the equipment and facility (e.g., DOE – Restricted Data; DCI – Sensitive Compartmented Information (SCI); Joint Staff – SIOP). This will be useful to determine the likelihood that an adversary may target the facility.

d. (U) Perishability of Information Processed – Consider if the information being processed is of long-term value (e.g., strategic) or short-term value (e.g., tactical).

e. (U) Physical Control/Inspectable Space – Consider the physical/access control over the facility and areas containing the system under review. This includes guards (number, hours of posting, patrols, etc.); badging; control over access to facility; alarms; and procedures to monitor/control uncleared or unauthorized personnel including custodial personnel, vending personnel, and telephone/power maintainers/installers. Determine the level of authority, which exists for the inspection or removal of personnel who could potentially exploit TEMPEST vulnerabilities within the inspectable space. Examine the posting of warning signs and the implementation of procedures in effect to exercise control over parking and other areas adjacent to or in close proximity to the facility/system under review.

f. (U) TEMPEST Profile of Equipment – Consider estimated or measured TEMPEST profile information for each equipment/system used to process classified information at the facility. Consider existing on-site TEMPEST test results for the facility.

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ANNEX A

REFERENCES

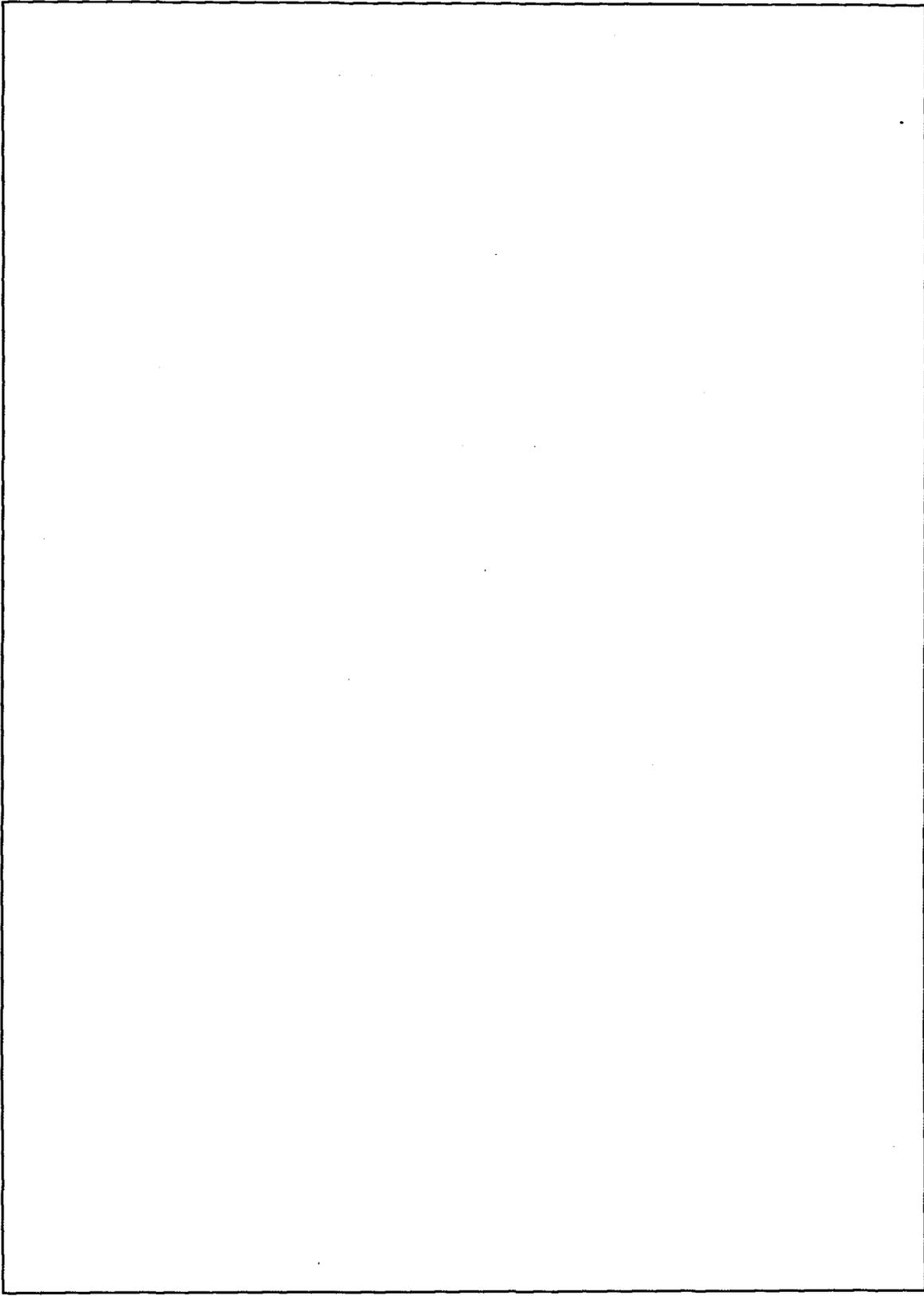
THE INFORMATION CONTAINED IN THIS ANNEX IS UNCLASSIFIED IN ITS ENTIRETY.

- a. NSTISSI No. 7002 – TEMPEST Glossary, dated 17 March 1995.
- b. CNSSI No. 4009 – National Information Assurance (IA) Glossary, dated May 2003.
- c. CNSSP No. 300 – National Policy on Control of Compromising Emanations, dated April 2004.
- d. NSTISSAM TEMPEST/1-92, Compromising Emanations Laboratory Test Requirements, Electromagnetics, dated 15 Dec 92.

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