

27 MARCH 1998



Communications and Information

**CONTROL OF COMPROMISING
EMANATIONS (TEMPEST)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFDPO/PP WWW site at:
<http://afpubs.hq.af.mil>.

OPR: 62 CS/SCSS (Mr. Hahn)
Supersedes MAFBR 56-1, 17 April 1995

Certified by: 62 CS/CC (Major Taylor)
Pages: 5
Distribution: F

This instruction establishes the responsibility for safeguarding Air Force installations against unauthorized interception of national security information through electronic radiation, acoustical radiation, or conduction. This instruction applies to all personnel assigned to McChord AFB who procure, install, operate, or maintain electronic equipment which processes national security information, and to all personnel who construct, modify, or maintain facilities in which national security information is processed. It implements AFD 33-2, C4 Systems Security, AFSSI 7000, The Air Force TEMPEST Program, and other applicable TEMPEST directives.

1. Terms Explained:

- 1.1. TEMPEST. The unclassified short name for the control of compromising emanations from equipment used to process national security information. It is sometimes used as a synonym for the expression "compromising emanations."
- 1.2. Compromising Emanations. The unintentional intelligence-bearing signals which if intercepted and analyzed, disclose the national security information transmitted, received, handled, or otherwise processed by any electronic or electro-mechanical information processing equipment.
- 1.3. Red/Black Concept. The concept that electrical and electronic circuits, components, equipment, systems, etc., which handle security plain language information in electrical signal form (Red) be separated from those which handle encrypted or unclassified information (Black).
- 1.4. Controlled Space (CS). The three-dimensional space surrounding equipment that processes national security information within which unauthorized personnel are denied unrestricted access and are escorted by authorized personnel or are under continual physical/electronic surveillance.
- 1.5. National Security Information. Government-derived, classified or unclassified, information relating to national security.

2. General. Countermeasures must be applied to all equipment which processes national security information to prevent security compromise. These countermeasures include installing TEMPEST approved equipment, maintaining properly **controlled spaces**, and modifying facilities or equipment to prevent access to compromising emanations by unauthorized personnel. AFSSI 7001, TEMPEST Countermeasure Assessment, will be used to determine minimum countermeasures.

3. Responsibilities:

3.1. The Installation Commander appoints a primary and alternate Base TEMPEST Manager.

3.1.1. The primary and alternate Base TEMPEST Managers will be officers in Air Force Specialty Code (AFSC) 3C0X and enlisted personnel in AFSC 3C0X1 and 2E3X1, or civilian equivalent; and they will have a minimum of 2 years experience in Command, Control, Communications and Computer (C4) systems, or have attended the TEMPEST Officer Course. They will have a Top Secret clearance. Upon approval, the letter of appointment will be forwarded to HQ AMC/SCMX, Scott AFB IL. The letter will include the name, grade, social security number (SSN), AFSC (civilian equivalent), security clearance, and DSN/STU III telephone number of the appointed individuals.

3.1.2. Within units that process classified information by electronic means, commanders will appoint a TEMPEST monitor to coordinate all TEMPEST matters with the Base TEMPEST Officer. The memorandum, addressed to 62 CS/SCSS, will include the name, grade, SSN, security clearance, office symbol and duty telephone number.

3.2. The base civil engineer (BCE) will ensure that all TEMPEST deficiencies identified are corrected in a timely and permanent manner, and will have an office of primary responsibility (OPR) for TEMPEST and electromagnetic pulse (EMP) shielding. The names, security clearances, duty telephone numbers and office symbols of the individuals will be provided by memorandum to 62 CS/SCSS.

3.3. The Base TEMPEST Managers will:

3.3.1. Administer the TEMPEST program IAW applicable directives.

3.3.2. Be the focal point for all TEMPEST matters, including messages and reports between higher headquarters and unit TEMPEST monitors.

3.3.3. Update, publish, and maintain, as required, a base directive to provide guidance and to ensure that the TEMPEST program is properly administered.

3.3.4. Perform a TEMPEST evaluation IAW AFSSI 7001 on all new equipment or systems, except typewriters, used to process national security information. Results of the evaluation will be documented and maintained in the 62 CS Secure Communications Systems Maintenance Branch TEMPEST files.

3.3.5. Attend the C4 Wing Action Reviews and the Base Facilities Working Group (BFWG) meetings to ensure TEMPEST countermeasures are included in new equipment acquisition, installation, or reconfiguration of existing facilities that process classified information.

3.3.6. Implement an ongoing TEMPEST training/education program for all personnel who procure, install, operate or maintain electronic equipment used to process national security information by:

- 3.3.6.1. Submitting periodic inputs on current TEMPEST items for publication in official base bulletins.
- 3.3.6.2. Providing TEMPEST training and materials to unit and agency monitors as necessary.
- 3.3.6.3. Conducting base TEMPEST meetings as required.
- 3.3.7. Ensure annual Red/Black TEMPEST inspections are performed on all McChord AFB facilities that process national security information. These inspections will be documented and followed up to ensure that corrective actions have been taken to eliminate TEMPEST deficiencies.
- 3.3.8. Maintain a current set of applicable TEMPEST publications, request required TEMPEST technical data from HQ AMC/SCMX, and maintain current data on base information processors.
- 3.3.9. Maintain TEMPEST files IAW AFR-4-20V2. The files will contain as a minimum:
 - 3.3.9.1. Memorandum of appointment for BASE TEMPEST Manager and alternate.
 - 3.3.9.2. Initial and annual Red/Black TEMPEST inspections for all units processing national security information.
 - 3.3.9.3. Current list of unit TEMPEST monitors.
 - 3.3.9.4. Current list of all facilities where equipment is used to process national security information, and a current list of the equipment used to process national security information at each of these facilities.
 - 3.3.9.5. Current Preferred Products List (PPL) and TEMPEST Profile Data List (TPDL).
 - 3.3.9.6. Documentation of education and training.
 - 3.3.9.7. Copy of 21-month master station earth ground checks.
 - 3.3.9.8. Documentation of evaluations IAW AFSSI 7001 and acceptances of risk. On identified security hazards, make appropriate recommendations to correct deficiencies.
- 3.3.10. Ensure the 62 Airlift Wing Commander, 62d Support Group Commander, Communications-Computer Systems Officer, and appropriate unit commanders/agency chiefs are briefed on any major TEMPEST hazards that exist. Provide them with specific recommendations on actions required to prevent or resolve a TEMPEST problem.
- 3.3.11. Be aware of what equipment is being purchased to process national security information by reviewing each requirement.
- 3.3.12. Assist the 62d Civil Engineer Squadron (62 CES) Commander in the planning of new and reconfigured base national security information processing facilities and participate in the quality assurance inspection of communications-electronics (C-E) schemes to ensure TEMPEST compliance and sign AF Form 1261, Communications-Computer Systems (C-CS) Acceptance, Commissioning, and Removal Certificate.
- 3.3.13. Review all AF Forms 3215, C4 Systems Requirements Document and McChord AFB Forms 496, Communications Requirements Document, when actions are requested to install TEMPEST countermeasures.

NOTE: The existence of a TEMPEST deficiency is classified at minimum Confidential.

3.4. Unit TEMPEST Monitors will:

- 3.4.1. Identify to the Base TEMPEST office all facilities and equipment used to process classified information within their unit.
- 3.4.2. Assist the Base TEMPEST Manager in performing inspections within their unit.
- 3.4.3. Conduct any necessary training within their unit.
- 3.4.4. Coordinate all new equipment with the Base TEMPEST Manager, 62 CS/SCSS, before the equipment is purchased if the equipment will be used to process national security information.
- 3.4.5. Coordinate all new facility construction plans with the Base TEMPEST Manager and the 62 CES TEMPEST OPR if national security information will be processed within the new facility.
- 3.4.6. Report suspected TEMPEST problems to the Base TEMPEST Manager.

NOTE: Specific information related to a suspected TEMPEST problem is classified at minimum Confidential (NOFORN).

- 3.4.7. Initiate action to resolve TEMPEST problems based on the recommendation of the Base TEMPEST Manager.
- 3.4.8. Keep the Base TEMPEST Manager informed of any progress or completion of TEMPEST initiatives.
- 3.4.9. Ensure that the 21-month master station ground check is performed by the BCE as required.
- 3.4.10. Maintain a suspense file for work orders covering TEMPEST deficiencies.

NOTE: Classification of TEMPEST deficiencies will be at least at the level of classification of the information processed.

3.5. The Base Civil Engineer OPR will:

- 3.5.1. Identify to the Base TEMPEST Manager all new construction projects in which the processing of national security information will take place.
- 3.5.2. Assist the Base TEMPEST Manager in performing inspections within each unit, as required.
- 3.5.3. Maintain a suspense file on all work orders pertaining to TEMPEST deficiencies.
- 3.5.4. When requested by the Base TEMPEST Manager, provide an up date on the status of these work orders.

NOTE: Classification of TEMPEST deficiency reports will be at least at the level of the information processed by the equipment or facility.

- 3.5.5. Ensure the 21-month master station ground checks are performed by the BCE and that the copies of these reports are forwarded to the Base TEMPEST Manager.

3.6. The 62d Communications Squadron Customer Support Element, 62 CS/SCSJ, will ensure that the Base TEMPEST Manager is included as a coordinating agency on all AF Forms 3215, McChord AFB Forms 496, and AF Forms 601, Equipment Action Request, which identify a requirement to process national security information.

4. Procedures:

- 4.1. Routine facility and system TEMPEST inspections are conducted annually, prior to July. Special inspections will be conducted when requested by higher headquarters or by a unit assigned to McChord AFB.
- 4.2. The Base TEMPEST office will coordinate with units or agencies prior to inspections.
- 4.3. Units and staff agencies will ensure TEMPEST inspectors are given access to facilities and systems on the scheduled inspection date. Further, an individual familiar with the facility or system must be available to provide general technical and historical information on the system. The unit TEMPEST monitor will also be present.
- 4.4. Copies of completed, classified TEMPEST reports are provided to the unit commander or staff agency chief for internal documentation files if requested.
- 4.5. Discovery of a major TEMPEST hazard will be reported promptly to the unit commander/staff agency chief and the Base TEMPEST Manager.

JAN D. EAKLE, Colonel, USAF
Commander, 62d Support Group