

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
U.S. Coast Guard  
Telecommunication & Information  
3b)  
Systems Command

Email: rporter@tiscom.uscg.mil

7323 Telegraph Road  
Alexandria, VA 23115  
Staff Symbol: TISCOM (isd-  
3b)  
Phone: 703.313.5631  
Fax: 703.313.5640

2241  
05 March 2004

## MEMORANDUM

From: Mr. Ronald T. Porter  
CG TISCOM (isd-3b)

Reply to TISCOM (isd-3b)  
Attn of: Ronald T. Porter  
703.313.5631

To: DIRECTOR, TISCOM Deepwater Systems

Subj: USCGC MATAGORDA VISUAL TEMPEST INSPECTION

Ref: (a) NSTISSAM TEMPEST 2-95  
(b) IA PUB 5239-31 INFORMATION ASSURANCE SHIPBOARD  
RED/BLACK INSTALLATION PUBLICATION

1. The Secure Electrical Information Processing System (SEIPS) on CGC MATAGORDA was inspected by Ronald Porter (TISCOM) on 19 and 21 February 2004. The inspection was conducted using criteria listed in references (a) and (b), and the SEIPS was found not to be in compliance. Discrepancies are listed in the enclosure.
2. This summary provides a record of the installation at the time of inspection. The correction of installation discrepancies is required as specified in reference (a) and (b); however, other modifications or changes to the SEIPS shall not be made without approval of Commander, TISCOM (isd-3d) or the appropriate MLC.
3. This summary and amendments to this summary shall be retained in the unit's SEIPS (TEMPEST) documentation file.

#

Enclosure: Visual Tempest Inspection Report

Copy: Maintenance and Logistics Command Atlantic (t)  
Maintenance and Logistics Command Pacific (t)

Subject: Visual TEMPEST Inspection Summary

1. This Visual TEMPEST Inspection Summary is for the FTA Visit
2. The entire Secure Electrical Information Processing System was inspected.
3. List of spaces with secure processing equipment inspected by the visual TEMPEST inspector:
  - A. Visited space
4. Discrepancy form legend:

Column A: Sequential discrepancy number

Column B:

- |     |   |
|-----|---|
| SF  | Correction of the discrepancy is within the capability of ship's force.   |
| IAC | Correction of the discrepancy was completed by ships force prior to completion of inspection visit.               |
| IA  | Indicates that the assistance of an industrial activity is probably required to properly correct the discrepancy. |
| IAC | Indicates that an industrial activity corrected the discrepancy.  |
| SA  | Indicates that the assistance of a support activity is probably required to properly correct the discrepancy.     |
| SAC | Indicates that a support activity corrected the discrepancy.  |
| CA  | Indicates that the Contractor Activity is probably required to properly correct the discrepancy.                  |

Column C: Reference of the paragraph in designated manuals to which the installation does not conform.

Narrative: A brief description of the discrepancy found.

## 5. Discrepancy

A	B	C	Narrative
01	CA	NSTISSAM TEMPEST 2/95 PG 27 Para 2a/pg16 para 5 IA Pub 5239-31 A.1.1.1 a, b	Cabinet 3: Black RF transmitter (RT-1794) <b>in same rack</b> as Red Processors. Recommend moving 3 meters away or in adjacent Black Equipment Room. Explore option of putting on Bridge. If so, then distributive Key scheme may pose a problem.
02	CA	NSTISSAM TEMPEST 2/95 pg 27 Para 2a/pg16 para 5 IA Pub 5239-31 A.1.1.1 a, b	Cabinet 2: RF transmitter (PCRP 211/802) <b>in same rack</b> as Red Processors. Recommend moving 3 meters away or in adjacent Black Equipment Room.
03	CA	NSTISSAM TEMPEST 2/95 PG 27 Para 2b	Cabinet 3: Red processor <b>less than one meter away</b> from power line to black transmitter (RT-1794 p/o ARC-210)
04	CA	NSTISSAM TEMPEST 2/95 pg 27 Para 2a	Cabinet 3: Red processor <b>less than one meter away</b> from black signal lines connected to RF transmitter (RT-1794)
05	CA	NSTISSAM TEMPEST 2/95 pg 27 Para 4  IA PUB 5239-31 Para A.1.7.1  IA PUB 5239-31  MIL-STD 188- 124B Para 5.2.12	<p>Signal cable used with RED processors, BLACK processors, ISDN telephones, and not terminated. Request additional information <b>on CAT 5E cable</b>. Red data cables for RED Lan contain <b>questionable shielding</b>. Manufacturer data: DARKA COMTEQ (F) ShipLan Cable <b>4PR 24 AWG</b> Screened 307650. Cable contains what seems to be mylar foil. <b>A TEMPEST hazard exists if RED cables are run with BLACK cables, or with wirelines or power lines connected to an RF transmitter.</b></p> <p>NSTISSAM 2-95. RED processors meeting the requirements of NSTISSAM TEMPEST/1-92 (Levels I, II, or III) <b>must use</b> optical or <b>shielded wire cables</b> if specified as part of the manufacturer's installation specification, or if specified for compliance with TEMPEST certification.</p> <p>IA Pub 5239-31: RED Shielded Metallic Wire Cable. RED metallic wire cables in all locations shall be shielded, with the exception of desktop computer cables that are provided by the manufacturer, where there is not an offered shielded cable option. This requirement is not applicable to RED fiber optic cables.</p> <p>B.1.2.5 (5239): Approved cables. Mil-C-17 (ref k), or MIL-C-915 (reference(l)), MIL-C-24640(reference(n)) or MIL-C-24643 (reference (o)).</p> <p><b>MIL-STD-188 "Foil shields are not acceptable for peripheral bonding and do not provide mechanical durability"</b></p> <p>IA Pub 5239-31 pg B-9 Para d. Note: "If both ends of the cable will not have the shield taken to ground, approval by the cognizant</p>

			CTTA should be obtained prior to installation.”
06	CA	NSTISSAM TEMPEST 2/95 pg 28 Para 6	RED processors and RF transmitters in Cabinet RED processors should not be powered from the same circuits as RF transmitters.
07	CA	IA Pub 5239-31 Para B.1.2.6.16 pg B-8 and B-9	Missing pins on CRYPTO cable to KYV-5. Missing ground terminal connection on backshell.
08	CA	IA Pub 5239-31 Para B.1.2.6.16 pg B-8 and B-9	ANDVVT cable has no ground terminal connection on backshell. Strain relief clamp is not on outer coating of cable. Redo connection.
09	CA	IA Pub 5239-31 Para B.1.2.6.10	AN/UPX-28 has inadequate green wire ground. Replace with Class C bond strap.
11	CA		Install ground cables per IA 5239-31. Where required, use soldered connectors vice crimping.
12	CA	IA Pub 5259-31	Remove external tooth washers on ground connectors to cabinets. Use lock washers and lug nuts per IA Instruction 5239-31 Figure B-5.
13	CA	IA Pub 5239 B.1.2.6.12	Keyboard and Monitor in Cabinet #1 has non –manufacturer supplied power cable. Bond shelf to rack.
14	CA	NSTISSAM 2-95 Para 3 Notes 3	RED/BLACK cable separation. Two inch minimum separation requirement. Six inch separation requirement for RED/BLACK cables that run in parallel for 100 ft runs. No way to physically identify RED/BLACK data cables from each other or from the ISDN phone lines.
15	CA	NSTISSAM TEMPEST 2/95 Recommendation I Pg 27	PCRP (Model 211/802) is Black transmitter in RED Cabinet #3. PCRP (RADAR) is less than three meters away from RED processing equipment. Recommend moving outside of C4ISR Classified Room.
16	CA	IA Pub 5239-31 Para B.1.2.6.10	Remove green wire grounds from CRYPTO rack and replace with Class C solid bond strap.
17	CA	IA Pub 5239-31 Para A.1.1.3	Telephone cables connected to shore tie via telephone switch cannot be routed with red cables. More info on MARCOM switch required.
18	CA	IA Pub 5239-31 Para A.1.1.7.	ARC-210 Secure voice cables. Transmit and receive audio lines need to be shielded.
19	CA		Request info on Marcom Compact IVCS Switch with PABX. Issue is port isolation for RED/BLACK connections. All ISDN phones, cellular wireless, shore connection box and KITEs have inputs to MARCOM. TISCOM TEMPEST program manager will check on configuration on SIPRNET. Wireline inputs to MARCOM in current configuration appear to be unshielded.
20	CA	NSTISSAM 2-95 Recommendation I Pg 27 Para 3 Notes: 2	Operator position in Classified C4ISR room has cables from two UNCLAS LAN and three CLASSIFIED LAN connections. Require 2 inch (5 cm) separation.

## Bridge

21	CA	NSTISSAM TEMPEST 2/95 PG 27 Para 2a	Motorola VHF FM DES transceiver less than three meters from C2 Network flat panel display monitors LC 06-04-16, LC 06-04-72 and LC 06-04-84. Pending Instrumented Test.
22	CA	NSTISSAM TEMPEST 2/95 PG 27 Para 2a	Ross VHF FM transceiver less than three meters from C2 Network flat panel display monitors LC 06-04-16, LC 06-04-72 and LC 06-04-84. Pending Instrumented Test
23	CA	NSTISSAM TEMPEST 2/95 PG 27 Para 2a	Cel phone next to Secure Lan junction box less than three meters from LC 06-04-82 and LC 06-04-72. Request composition of enclosure.
24	CA	IA Pub 5239-31 Para B.1.2.6.13	No metal-to-metal contact for ground strap from ARC 210 Tray to ground on shelf. Recommend use Class C ground strap and remove paint for proper bonding.
25	CA	IA Pub 5239 A.1.1.7.2a	Not clear if Shielded Twisted Pair is used for voice and control wirelines.
26	CA	IA Pub A.1.1.7.2 Pg A-3	Unshielded cable connected to connector J3 on ARC-210 Tray. Twisted red wires (four) runs to C4ISR Cabinet #3.
27	CA	NSTISSAM TEMPEST 2/95	Wireless bridge for RHIB comms is RF transmitter?? Is this just a radio with mic on cutter?? PDAs??

## Other:

28	CA	NSTISSAM 2-95 Recommendation I Pg 27 Para 3 Notes: 2	CO's cabin. RED and BLACK LAN ports have no cable separation. Recommend 2 inch separation.
29	CA	NSTISSAM 2-95 Recommendation I Pg 27 Para 1	CO's cabin. Proposed RED laptop on desk top less than 20 inches (20 cm) apart.

## Cabinet #3

Derived From: NSTISSAM TEMPEST 2/95

Department of the Navy (DoN) Information Assurance (IA) Publication  
Module 5239-31

MIL-STD-188-124B Grounding Bonding Shielding for Common Long  
Haul/Tactical Communications Systems