



Standards Advisory and Coordination Committee (SACCOM)



November 9, 2000

Compilation of SACCom Representative Reports

<p>CISPR A</p> <p>Title: Radio Interference Measurements and Statistical Techniques</p> <p>Representative: Don Heirman</p>	<p><u>Current Activities:</u></p> <p>Definitions: CD=Committee Draft; CDV=CD for vote; FDIS=final draft international standard; CC=collection of comments</p> <p>Emission antenna calibration; Program of work further outlined</p> <p>Amending emission antenna cross polarization and balance requirements; CD to be issued</p> <p>Use of resonant "H-field" loop antennas; CD to be issued</p> <p>Measurements and instrumentation above 1 GHz; more work proposed, but no CD yet</p> <p>Devices for measuring emissions on signaling lines; CDV to be prepared</p> <p>USE of AMN as a voltage probe; project completed and in CISPR 16-1.</p> <p>Emission measurements in the presence of ambient signals; CDV issued and National Committee comments received</p> <p>Uniform arrangements for emission and immunity testing; CD to be issued</p> <p>Automated emission measurements; CD issued and National Committee comments received</p> <p>Accounting for measurement uncertainty when determining compliance with a limit; CDV to be issued once French translation is completed</p> <p>Determining EMC product compliance uncertainty; two CDs issued and National Committee comments received.</p> <p>Use of capacitive voltage probes; round-robin test in progress</p> <p>Thirteen) Use of absorbing clamps in the frequency range: 30-1000 MHz; CD to be prepared</p> <p>Fourteen) Spectrum analyzers for the frequency range: 1-18 GHz; round robin test in progress</p> <p>Average measurement receivers in the frequency range: 9 kHz-1000 MHz; published in CISPR 16-1</p> <p>Fourteen) Fully anechoic chambers site validation and test techniques; New CD to be issued based on comments from first CD</p> <p>Fifteen) Use of TEM devices for emission and immunity testing (Joint project with IEC TC77), IEC61000-4-20; CD issued—awaiting National Committee comments</p> <p>Sixteen) Use of mode-stirred devices for emission and immunity testing (Joint project with IEC TC77), IEC61000-4-21; ongoing activity</p> <p>Seventeen) Use of partial ranges in applying the statistical 80/80 rule; work to be started.</p>
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<p>CISPR B</p> <p>Title: “Industrial, Scientific, and Medical Radio Frequency Apparatus”</p> <p>Representatives: Dan Hoolihan</p>	<p><u>Current Activities:</u></p> <p>The United States TAG for CISPR B met in Washington, DC on September 25, 2000. A number of CISPR B issues were addressed and United States positions on these issues were formulated. A summary of the key issues is detailed below.</p> <p>CISPR/B/238/RM – This document is the unconfirmed minutes of the CISPR B meeting held in Saint Petersburg (Russian Federation) on 5 June 2000. The minutes note that Amendment 1 has been incorporated into the version of CISPR 11.</p> <p>CISPR/B/241/CC – This document is a compilation of comments on a committee draft, CISPR/B/234/CD. The topic of discussion is the proposed revision of measuring methods for fluctuating emissions below 1 GHz. There was a mixed reaction to this proposal on changing measurement methods for microwave ovens; it may be moved to CISPR A for discussion because of its focus on measurement techniques.</p> <p>CISPR/B/242/CD – This document was produced based on the discussions of an ad-hoc committee of Subcommittee B held immediately after the ST. Pete CISPR B meeting on 5 June. Its work output was to modify the original document attached to a New Work Item Proposal by the Polish Committee, taking other national committee comments into account. The US TAG spent a lot of time on this document and objected to many of the elements proposed in the Committee Draft. The US will file comments by 30 November 2000 on their specific objections.</p> <p>CISPR/B/243/RVC – This document is the Results on Voting on CISPR/B/231/CDV; which addressed adding “arc welding equipment” to the scope of CISPR 11. The proposal was rejected and it will be discussed at the next CISPR B meeting in June of 2001.</p> <p>CISPR/B/244/CD – This proposal wants to amend CISPR 11 to add special medical equipment to the classification given in Annex A. Specifically, they want to add “general and special purpose X-ray equipment for diagnostic imaging (inclusive computer tomography) and therapy” to Group 2 equipment. The U. S. objects to this because there is no rationale given for the change.</p> <p>CISPR/B/245/CD – Proposed amendment to CISPR 11 (third edition) to add the use of the artificial hand for hand-held equipment which fall within the scope of CISPR 11. The closing date for comments on this CD is 15 December 2000.</p> <p><u>New Work Items proposed/approved:</u></p> <p>CISPR/B/240/NP – This New Work Item Proposal attempts to amend both CISPR 11 and CISPR 15 to clarify the regulation of microwave powered ultraviolet irradiators. That is, the proposal clarifies that UV irradiators, because they do not generate or distribute light for illumination purposes are properly the subject of CISPR 11 and not CISPR 15</p> <p><u>Standards/Revisions recently voted on:</u></p> <p>Amendment 1 has been incorporated into the 1997 version of CISPR 11</p> <p><u>Additional Comments:</u></p> <p>Next CISPR B meeting in scheduled for June of 2001</p>
<p>CISPR E</p> <p>Title: Interference relating to Radio Receivers</p>	<p><u>Current Activities:</u></p> <p>Amendment of CISPR 13 (Emission limits and measurement methods); resolution of ballot remarks concluded</p> <p>Amendment of CISPR 20 (Immunity limits and measurement</p>

<p>Representative: Don Heirman</p>	<p>methods); resolution of ballots remarks concluded</p> <p>To include in both documents above the methods of measurement and limits for radiation and immunity of broadcast receivers for digital signals and broadcast related multimedia equipment; WG2 on digital TV measurements continue</p> <p>Discussions ongoing on possible merge of CISPR E with CISPR G or a joint WG to handle multimedia equipment which have antenna ports as well as other ITE ports and all controlled by microprocessors</p>
<p>CISPR G</p> <p>Title: Interference relating to ITE</p> <p>Representative: Don Heirman</p>	<p><u>Current activities:</u></p> <p>Limits and measurements of emissions for “small” Class A and B equipment at 3 meter separation; CDV issued</p> <p>Amended definition of telecommunications/network port for making conducted emission measurements 150 kHz to 30 MHz; CDV in progress</p> <p>New definition of ITE with a radio transmission and/or reception capability; ad hoc committee to discuss next steps</p> <p>Accommodating test instrumentation transients when stepping frequencies during continuous signal immunity testing; passed to TC77, SC77B for inclusion in IEC 61000-4-3 and 4-6; no further work in CISPR G</p> <p>Operation and applicability of equipment with multifunctional capability, e.g. multimedia equipment; CD issued and National Committee comments received and CC issued; affects both CISPR 22 and 24.</p> <p>Measurement and limits for emissions above 1 GHz (Limits between 1 and 2.7 GHz proposed); the FDIS on this topic failed. New work is underway to come up with new limits and measurement methods. Present thinking is to address limits up to 18 GHz</p> <p>Emission measurements using ferrite tubes attached to cables leaving the test area from tabletop products; Amendment 1 to CISPR 22 published containing this requirement.</p> <p>Liaison with TC 100 on cabled distribution systems for TV and sound signals (Part 12: EMC); No further work noted</p> <p>Modification to measurement method on power supply networks supporting data transfer and telecommunications and telecommunication ports with more than two balanced pairs or to unbalanced cables connected; meeting with some opposition; round robin testing underway to gain info to improve the non-invasive test number 4 of Annex C of Pub 22.</p> <p>Relaxation of conditions of immunity testing and criteria related to RF continuous conducted tests at telecom ports. Applicable to the following frequency ranges: frequencies below 30 MHz, 30 to 80 MHz and 80 to 1000 MHz.; CDV issued.</p> <p>Test setups: ad hoc committee has finished recommendations for changes and improvements to CISPR 22 figures including those in its appendix C. A CD will be drafted.</p> <p>XDSL activity: ad hoc committee is drafting a CD to indicate if there is a need for changes in emission limits for spread spectrum systems</p> <p>Convergence of E and G. Ad hoc committee highlighted what CISPR G would do if E and G were merged or if they were not merged, but still had to deal with products which have ITE and receivers. There was a focus on the need for joint working groups in any case and issues were identified is this happened.</p> <p><u>New Work Item:</u></p>

	<p>Testing local area networks including coupling attenuation and specific cable layout; ad hoc committee to determine next steps; ad hoc met in Red Bank, NJ on 26 October; agreed to liaise more with JTC1, SC25, WG3 on topic and for National Committees to provide information on installed balance of LAN cabling systems. This work is also being coupled to large system testing and looking at other sources of information such as that in ITU-T K38.</p>
<p>CISPR H Title: Limits for the protection of radio services Representative: Werner Schaefer</p>	<p><u>Current activities:</u> Development of data base on the characteristics of radio services, development of rationale for the setting of emission limits, survey of EMC product standards on emissions, development of archive of justification of limits that exceed the generic limits</p> <p><u>New Work Item:</u> The items mentioned under "Current Activities" were new work items, which were approved recently. No new additional work items were proposed.</p> <p><u>Additional Comments:</u> This subcommittee has a major impact on standards development in the future, especially for measurements of products above 1 GHz. It closely cooperates with CISPR/A to ensure that test methods and test equipment are appropriate for new measurements.</p>
<p>EIA G46 Title: "Electromagnetic Compability in Electronic Design" Representatives: Ali Nadir Arslan</p>	<p><u>Current Activities:</u> The Department of Defence (DoD) / Industry Electromagnetic Environmental Effects(E3) Standards Committee (DIESC) produced a draft document, dated April 6,2000, that compares commercial EMI requirements with those contained in MIL-STD-461E to address the EMI needs brought on the military's direction to procure and use non-development items. The committee consisted of both military and industry representatives. Jim Sketoe represented EIA-G46. John Zenter (USAF) is collecting comments. He can be reached at john.zentner@wpafb.af.mil This document expected to be on-line in early September 2000 at www.navair.navy.mil/e3</p> <p>MIL-HDBK-237B "Electromagnetic Compatibility Management Guide for Platforms, Systems and Equipment" first draft is expected to be out in November 2000.</p> <p>EIA Inside Skinny Reports are available to the people of member companies via e-mail. These reports are primarily about items of political interest to the membership. Employees of member companies can be added to the distribution list by e-mailing Gail Schneider at gshneider@eia.org</p> <p><u>New Work Items proposed/approved:</u> 5-year review cycle for MIL-STD-464 will start in approx.6 months. Steve Cain(Navy) is the point of contact for this effort.</p> <p>Robert Davis is elected as the new chairman of EIA G46 committee and Jim Sketoe as vice-chairman.</p> <p><u>Standards/Revisions recently voted on:</u> The release of MIL-STD-461E resolves the problem that EIA IS-647 and IS-648 were addressing, the membership present voted to drop EIA IS-647 and IS-648 from circulation and maintenance.</p> <p><u>Scheduled Near Projects:</u> A project " Best Practices" EIA standard or recommended practice covering cable and connectors shielding and shield termination(bonding) methods for the military environment. This will be tabled until the next meeting.</p>

	<p><u>Additional Comments:</u></p> <p>The next meeting will be planned to be held in conjunction with the 2001 IEEE EMC Symposium in Montreal QC, Canada, 7:30 to 10:00 pm, Thursday, August 16, 2001.</p>
<p>SAE AE-4</p> <p>Title: Aerospace Electromagnetic Environmental Effects (E³), Chairman Representative: Gary Fenical</p>	<p><u>Current Activities:</u></p> <p>a) 5 year review of several standards. Anyone interested in reviewing a document to determine if it needs to be reaffirmed, revised or cancelled, contact Gary Fenical</p> <p><u>New Work Item Proposals:</u></p> <p>a) Ecological Method for Measuring Radio Electronic Product Immunity to External Electromagnetic Fields had been sent out for comment.</p> <p><u>Scheduled Future Projects</u></p> <p>a) Low-cost Calibration Method for ESD Simulators</p>
<p>ISO TC-20 SC14 WG1</p> <p>Title: Space Systems, EMC Technical Expert Representative: Noel B. Sargent</p>	<p><u>Current Activities:</u></p> <p>a) Document 14302: Space Systems, Electromagnetic Compatibility Requirements</p> <p>The Draft International Standard (DIS) of the document awaits the final French translation..</p> <p><u>New Work Item Proposals:</u></p> <p>a) EMI Test Methods for Spacecraft Equipment</p> <p>This document is a New Work Item Proposal (NWIP). The proposal would further standardize test methods at the equipment/box level. The proposal would establish 7 basic tests for critical parameters. The test method standard would not include limits.</p> <p><u>Standards/Revisions recently voted on:</u></p> <p>a) DIS14302 – Registration Vote: Affirmative</p>
<p>ECMA TC20</p> <p>Title: EMC in Europe Representative: H. R. Hofmann</p>	<p><u>Current Activities:</u></p> <p>a) Currently protesting the UK proposal to control XDSL emissions with a UK-only regulation MPT-1570, since ECMA wants a Pan-European or worldwide document.</p>