



Agreement

between the

Institute of Electrical and Electronics
Engineers, Incorporated (IEEE)

and the

NATO Standardization Agency
(NSA)

for the

Development of a New IEEE Civil Standard
to Replace the NATO EMF Standard,
Adopted Under STANAG 2345

Specific Agreement for the Development of a New IEEE Civil Standard to Replace the NATO EMF Standard, Adopted Under STANAG 2345

1. Introduction

1.1 This Agreement (the “**Agreement**”) is entered into by and between the Institute of Electrical and Electronics Engineers, Incorporated (IEEE) and the NATO Standardization Agency (NSA) and is effective as of 1 August 2009 (the “**Effective Date**”).

1.2 The subject of this Agreement is the NATO standard concerning safety limits for human exposure to electromagnetic fields (“**EMF**”). This standard (the “**NATO EMF Standard**”), entitled “Evaluation and Control of Personnel Exposure to Radio-Frequency Fields - 3kHz to 300 GHz, ed. 3 (CU:US) Ref: NSA (ARMY) 0120-MED/23245: 13 Feb. 2003,” was promulgated under NATO Standardization Agreement 2345 (“**STANAG 2345**”).

1.3 On 16 September 2008, the NSA issued a Standards Developing Organization (“**SDO**”) survey soliciting proposals to convert the NATO EMF Standard into a civil standard.

1.4 On 1 October 2008, the IEEE submitted a proposal to the NSA, in response to the SDO Survey, pursuant to which the IEEE would accept transfer of the NATO EMF Standard and convert it to and maintain it as an IEEE standard.

1.5 On 24 April 2009, the Military Committee Medical Standardization Board (“**MCMEDSB**”), being the NATO Tasking Authority for STANAG 2345, approved the selection of IEEE as the most suitable civil SDO to develop a new civil military workplace standard for adoption by NATO to replace the NATO EMF Standard.

1.6 On 14 May 2009, the IEEE and the NSA entered into a Technical Cooperation Agreement (“**TCA**”) whereby they agreed to cooperate with one another in activities in fields of mutual interest or endeavor, subject to the terms of specific agreements to be entered into pursuant to the TCA.

1.7 The IEEE and the NSA now desire to replace the NATO EMF Standard with a new IEEE-developed-and-maintained standard as more fully set forth herein. The aim of the NSA is to include NATO requirements in a new IEEE military workplace standard and adopt it, once published, through a formal NATO Standardization Agreement (“**STANAG**”) for use in NATO as a replacement for the NATO EMF Standard. The development of such a new IEEE military workplace standard is the key activity covered by this Agreement.

In consideration of the foregoing and the mutual promises set forth herein, the IEEE and the NSA agree, pursuant to the TCA, as follows:

2. General Provisions

2.1 For the purposes of this Agreement, the Point(s) of Contact (“**POC**”) for the IEEE and the NSA pursuant to TCA paragraph 2 shall be the following:

2.1.1 NSA POCs:

Dr. B. Jon Klauenberg, Custodian, STANAG 2345

Mr. Darko Topler, NSA Civilian Standardization Coordinator

2.1.2 IEEE POCs:

Dr. Ralf Bodemann, Chairman, IEEE International Committee on Electromagnetic Safety (“**ICES**”)

Mr. Ron Petersen, Executive Secretary, ICES

Dr. C-K Chou, Chairman, ICES Technical Committee C95

Mrs. Susan K. Tatiner, Associate Managing Director, IEEE-Standards Association (“**IEEE-SA**”)

2.2 Nothing in this Agreement shall impose on the NSA any duty to fund or provide financial support for the development of a new IEEE military workplace standard or any revision thereof or to otherwise fund the adoption of a new IEEE military workplace standard or any other standard as a NATO standard. Similarly, nothing in this Agreement shall impose on the IEEE any duty to fund or provide financial support for any activity of NATO or the NSA with respect to the development or adoption by NATO of a new IEEE military workplace standard or any other standard. The participation by any representative of NATO or the NSA in any aspect of the IEEE standards development process shall be at the NSA’s, NATO’s, or the representative’s sole cost, without any financial support or assistance from the IEEE.

2.3 Termination, if any, of the TCA shall not constitute a termination of this Agreement.

2.4 Either party may terminate this Agreement upon ninety (90) days written notice to the other party. The termination of this Agreement shall not affect or terminate the grant and reservation of rights set forth in Part 3 hereof or the duties, described in Part 4.7 hereof, of NATO and its representatives to refrain from using and to protect the confidentiality of all hard copy and electronically stored drafts and working documents prepared or obtained with respect to the IEEE standards development process.

3. Grant and Reservation of Rights

3.1 The NSA, on behalf of itself and NATO, hereby and as of the Effective Date given above, irrevocably and forever grants, assigns, and transfers to the IEEE the nonexclusive right to use, copy, and create a derivative work or works from the NATO EMF Standard, the copyright and other intellectual property rights (“**IPR**”) of which derivative work or works, if any, shall be owned solely by the IEEE. NATO retains all IPR in the NATO EMF Standard, including the right to copy, distribute and use the NATO EMF Standard as it has done prior to the Effective Date of this Agreement.

3.2 From and after the Effective Date, the IEEE shall develop, maintain, revise, and update a new IEEE military workplace standard that will address normative military occupational/workplace-specific exposure limits to electric, magnetic and electromagnetic fields, i.e., limits for exposures in controlled environments, over the full frequency spectrum from 0 Hz to 300 GHz (the “**New IEEE Military Workplace Standard**”). It is anticipated that NATO will adopt the New IEEE Military Workplace Standard by a STANAG as a new NATO standard to replace the NATO EMF Standard. Unless and until, however, the IEEE develops the New IEEE Military Workplace Standard and NATO adopts that standard, the NATO EMF Standard will remain in effect as a NATO standard.

3.3 NATO may choose to adopt or not adopt the New IEEE Military Workplace Standard in its entirety or to adopt it with specific reservations or exceptions. If NATO chooses not to adopt the New IEEE Military Workplace Standard as a NATO standard, NATO may maintain in effect the NATO EMF Standard, develop its own updated or replacement standard for the NATO EMF Standard, or adopt the standard of another SDO to replace the NATO EMF Standard. Regardless, however, of whether NATO adopts or declines to adopt the New IEEE Military Workplace Standard in whole or in part, the IEEE will be and remain at all times the sole owner of all IPR in the New IEEE Military Workplace Standard and any derivative work created by the IEEE from the NATO EMF Standard; NATO shall have no right to copy or create any derivative work from the New IEEE Military Workplace Standard or to use, copy, or disclose any drafts or working documents, whether in electronic or hard-copy form, prepared or obtained with respect to the IEEE standards development process. The New IEEE Military Workplace Standard will not be a “work for hire” under applicable copyright law, and this Agreement does not constitute a license, grant, or assignment to NATO, the NSA, or any NATO member nation or affiliate of any rights in or to the New IEEE Military Workplace Standard or any existing or future IEEE standard, including any standard into which the New IEEE Military Workplace Standard may be incorporated. The IEEE shall have exclusive control over the distribution, copying, licensing, and sale of the New IEEE Military Workplace Standard, which will be made available to NATO, the NSA, NATO members and the public in accordance with the IEEE’s then-prevailing practices, pricing, and terms and conditions of sale/license.

4. Outline of Action Plan

4.1 The IEEE will assign responsibility for the development and maintenance of the New IEEE Military Workplace Standard to ICES, which develops standards for safety levels with respect to human exposure to electric, magnetic, and electromagnetic fields through an open consensus process.

4.2 The IEEE may incorporate the New IEEE Military Workplace Standard into its updated and revised C.95 standards, which also address limits for exposure in uncontrolled environments, i.e., exposure limits for personnel not trained in EMF protective practices and for members of the general public. The New IEEE Military Workplace Standard may include a reference to these or other broader IEEE EMF exposure standards, which reference may indicate how such standards may be obtained from the IEEE.

4.2.1 One or more of the following IEEE ICES Technical Committee (“**TC**”) 95 subcommittees may participate in the development of the New IEEE Military Workplace Standard:

- SC1 – Measurement Techniques, Procedures, and Instrumentation;
- SC2 – Terminology, Units of Measurements and Hazard Communication;
- SC3 – Safety Levels with Respect to Human Exposure, 0-3 kHz;
- SC4 – Safety Levels with Respect to Human Exposure, 3 kHz-300 GHz;
- SC5 – Safety Levels with Respect to Electro-Explosive Devices.

ICES SC3 and SC4, however, will be the primary subcommittees responsible for the development and maintenance of the New IEEE Military Workplace Standard.

4.3 The NATO EMF Standard will become a core document contribution to the New IEEE Military Workplace Standard. The IEEE currently expects that work on assessing and revising all relevant materials, as needed, will begin with the establishment of a working group (the TC95 NATO Working Group) comprised of members of SC3 and SC4. The development of the New IEEE Military Workplace Standard nevertheless will continue to involve input from the world community. IEEE ICES and its subcommittees are open to anyone with a direct and material interest in the activities of the subcommittee; IEEE membership is not required. All members of subcommittees have voting rights on subcommittee ballots. NSA representatives may join the working group, but will not be required to do so. Members of the NATO countries who are interested in the development, review and update of the standard are likewise welcome to participate, and input from other IEEE members or invited experts may also be solicited. The working group will be subject to overall IEEE policies and procedures, and will further be subject to oversight by the IEEE Standards Association Standards Board (“**SASB**”) to ensure due process, balance, openness and transparency at every level. The draft New IEEE Military Workplace Standard developed by the working group will be formally balloted by the subcommittees and then by ICES (TC95), before it is submitted to the IEEE SASB for approval as an IEEE Standard. If the IEEE SASB approves the new standard as an IEEE standard, the IEEE will submit the New IEEE Standard to the American National Standards Institute (“**ANSI**”) for review and recognition as an American National Standard.

4.4 One of the first steps for the working group will be to develop and submit a Project Authorization Request (“**PAR**”) to the IEEE SASB for approval of the project. The working group can begin work while the PAR is in the review process and prior to its approval for a period of six months.

Assuming the PAR is approved by the IEEE SASB, the IEEE estimates, but cannot guarantee, that preparation and approval of the draft standard by SC3 and SC4 could be accomplished in no more than 9 months, since SC3 and SC4 are already in the process of revising IEEE Std C95.1-2005 and IEEE Std C95.6-2002 (reaffirmed in 2007) and combining the two standards into a single standard covering the frequency range of 0 to 300 GHz (the same frequency range the NSA has proposed). Following approval by both subcommittees, the draft standard will be sent to ICES for sponsor (TC95) balloting, which could take another 6 months.

NATO members and the NSA POC will have every opportunity for full participation in the working group and subcommittees in every phase of the standards development process. During the review and ratification process, any technical questions from NATO member nations will be addressed. Because of the open and inclusive nature of the IEEE standards development process, the IEEE cannot and does not guarantee that the timeline proposed herein will be met.

4.5 Although the IEEE will listen to and work with the NSA, NATO, and all interested and affected stakeholders throughout the standards development process, the IEEE cannot and does not guarantee that the final New IEEE Military Workplace Standard will reflect specific NSA proposals or concerns. The IEEE standards development process is open and inclusive, and considers all relevant inputs. Final IEEE standards are, and must be, based solely on a consensus of what constitutes the best available scientific information on the subject of the standard.

4.6 IEEE standards normally have a maximum life of 5 years, after which they must be revised, withdrawn or reaffirmed. In recognition of the fact that NSA guidelines call for triennial review of NATO standards, the New IEEE Military Workplace Standard will have a 3-year review, revision, withdrawal, or reaffirmation schedule.

4.7 Throughout the course of the New IEEE Military Workplace Standard's development process, hard-copy or electronically stored drafts and working documents prepared or obtained with respect to the standards development process will or may be shared with members, including any NSA POC or representatives who are members of the involved committees, subcommittees, or working groups. The organizational and governing documents of the IEEE-SA, and its policies, rules, and practices govern further distribution of these drafts and working documents, which are copyrighted by the IEEE and which are generally regarded as confidential, to non-members of a committee, subcommittee, or working group. To the extent distribution of drafts and working documents to NATO member nations is permitted by the IEEE-SA, the NSA and its POC shall ensure that such drafts and working documents are distributed only under "For Official Use Only, Do Not Distribute Outside of NATO" classification. The NSA and its POC shall also ensure that in no event shall any hard copy or electronically stored draft or working document prepared or obtained with respect to the IEEE standards development process be copied or used for any purpose other than the development of the New IEEE Military Workplace Standard. Any question concerning the use or distribution of such drafts and documents shall be addressed jointly by the NSA Civilian Standardization Coordinator (Mr. Darko Topler) and the Associate Managing Director, IEEE-SA (Mrs. Susan Tatiner).

4.8 The foregoing Action Plan is subject to all IEEE governing documents, rules, practices and procedures, and may be modified in the IEEE's sole discretion as necessary to ensure compliance with such governing documents, rules, practices and procedures and the fair and efficient development of the New IEEE Military Workplace Standard. All IEEE modifications, if any, to the Action Plan shall be timely communicated to the NATO POC.

Dated:

Dated: 30 July 2009

Susan K. Tatiner, CAE
Associate Managing Director, IEEE-SA

Cesare Balducci
Deputy Director NSA

**Institute of Electrical and Electronics
Engineers, Incorporated (IEEE)**

**NATO Standardisation Agency
(NSA)**

445 Hoes Lane
PO Box 1331
Piscataway, NJ 08855-1331
USA

NATO Headquarters
Boulevard Leopold III
B-1110 Brussels
Belgium

<http://standards.ieee.org>

<http://nsa.nato.int>