HEAD OF DELEGATION (HoD) REPORT

U.S. Member Body of the International Organization for Standardization (ISO)

U.S. National Committee of the International Electrotechnical Commission (IEC)

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Date:	01 December 2015

Meeting of:	Bi-Annual Plenary Meeting - IEC Technical Committee 80 Maritime navigation and radiocommunications equipment and systems
Date(s):	19-20 October 2015
Location:	Busan, South Korea

1. MEETING ATTENDANCE

Please indicate, if available, both the number of delegates and the countries represented at the Meeting:

The below table identifies USNC participants.

Participant	***Organization***
Timothy Strickland, HoD	*U.S. Coast Guard*
Lee Luft, Delegate	*U.S. Coast Guard*
Steve Spitzer, Delegate	*NMEA (Cat A Liaison)*
Robert Markle, Delegate	*RTCM (Cat A Liaison)*

Please see enclosure (1) for a complete table of participants.

☑ Meeting attendance roster and meeting resolutions attached, if available.

Please comment on significant or unusual attendance issues (e.g., new member bodies, regular members not in attendance, new Chairman or Secretariat, non-accredited U.S. persons, etc.).

Mr. Hannu Peiponen (Finland) relieved Dr. Andy Norris (UK) as the Chair of TC80. Dr. Norris served as the Chair for 24 years. He attended this Plenary as an Observer, in his current position as a professor at the University of Nottingham.

France and Australia were not in attendance. Their future as P-Members may be in jeopardy under the recent IEC SMB determination (153/4) to downgrade member status for countries that are not actively participating. The USNC made a strong case for both based on the new rules and metrics of participation. France's actions to convert IEC standards from English to French was an additional consideration. (IEC Ref: 80/771/INF)

USNC HoD REPORT: IEC TC80 2015 Plenary

MEETING OBSERVATIONS

2. Overall, how well did the U.S. meet its objectives on policy or technical matters?

- ☐ Very Successful -- U.S. positions were accepted in whole
- ☑ Successful -- Compromises were reached which are acceptable to the U.S.
- ☐ Not Successful -- U.S. positions were not accepted

3. Please comment on any issues of significance which might have an impact upon materially affected or interested U.S. parties.

The USNC Delegation provided 4 proposals to the TC80 Plenary. Below is the status/direction taken by the Committee for each USNC proposal. Unlike proposals submitted by other NCs, the TC80 Chair elected to synopsize each USNC submitted proposal and comments received. The USNC delegation then introduced the proposal and discussed what we were attempting to accomplish.

A. ***USNC proposal 80/773/INF: Proposal on a way-forward to implement cybersecurity provisions for maritime navigation and radiocommunications systems and equipments.*** *The proposal included circulation of an included draft PAS[1] (Publicly Available Specification) to IEC 60945-xxx (General requirements – Methods of testing and required test results). This PAS focused solely on the risks associated with REDS (Removable External Data Source: e.g. USB thumb drives, flash drives). While many delegations supported the need to address cybersecurity, there was strong opposition to assigning the PAS to an existing published standard. They were concerned that the regulatory bodies in their countries would treat the PAS as a mandatory requirement to be met immediately. Consensus was reached that the USNC would submit a draft PAS, but that it would not be tied to an existing standard. IEC would then assign a number. During the meeting, we (USNC Delegation) discussed the possibility of the USNC TC80 TAG collaborating with RTCM (Radio Technical Commission Maritime) to develop a PAS. That PAS will go beyond REDS. Once the PAS is received and concurrence is achieved, a new Cybersecurity Work Group will likely be established. The USNC Delegation was asked if they could provide a Convener for that WG. Please see 8.A and 13.*

B. ***USNC proposal 80/774/INF: Proposal to discontinue the practice of embedding National Marine Electronics Association (NMEA) 0183 data interface sentence definitions in AIS Base Station standards, as has been done with the IEC 61162-1 Shipboard Interface standard.*** *The proposal sought TC80 to treat NMEA developed standards in the same way that all other SDO standards are treated, as a Normative Reference. This approach was being pursued to help resolve situations where instances of sentence definitions cut-n-pasted from past NMEA draft and final standards became out of date with current standards, but were untraceable to which NMEA version they were copied from. The Committee agreed, with a vote of 6/2/2, to discontinue that practice with the next version of the Base Station standard. The USNC conceded to allow this for the upcoming release of the Base Station standard, with all future equipment standards to*

[1] PAS - IEC definition: http://www.iec.ch/standardsdev/publications/pas.htm

identify sentences and content through Normative Reference to NMEA 0183 standards, for material not published by IEC.

C. *USNC proposal 80/775/INF: Proposal to perform maintenance of GMDSS DSC, NAVTEX and SafetyNET (INMARSAT-C/EGC) Standards and conformance with Bridge Alert Management (BAM) requirements. The TC80 Chair directed that any discussion of DSC, NAVTEX and SafetyNET standards would be addressed later by the TC80 Secretary (included here).*

1) *BAM: In an earlier agenda item, the TC80 Secretary discussed that he thought the BAM Project Team efforts were just editorial, but discovered that was incorrect and significant effort was required. A Kelvin-Hughes technical expert is working on the document. It appears that the BAM Project Team is ahead of the IMO in this area. The Secretary had asked for a 2-year extension. The USNC Delegation informed the Committee that Alerts exist in Annex D of IEC 61162-1 (NMEA 0183) and that IEC 61162-3 (NMEA 2000) has over 1,000 Alerts already identified in PGN format.*

The following were included in this proposal, but were discussed later in the meeting. Included here due to relevance to USNC proposal.

2) *GMDSS DSC: The proposal was to update this circa 1994 standard to the current (2015) ITU version (M.493-14). A TC80 Maintenance Team is planned to update the DSC Standard (IEC 61097-3). Japan may provide the Convener; the U.S. will participate. This applies to MF/HF as well as the Class-A Transceiver for VHF. For VHF Class-D (IEC 62238), it is expected that this will require significant work to update and may be better off as a new standard. That will be addressed after the MT has completed efforts associated with DSC (61097-3).*

3) *NAVTEX: The Committee elected to defer the USNC's proposal that IEC 61097-6 (NAVTEX) be updated to include use of the advanced alert management data interfaces described in IEC 61924-2 §J.4 (INS alert related communication) by the currently scheduled stability date in 2017. It was decided that we would wait until the BAM standard was completed before opening any standard up to be BAM compliant.*

4) *SafetyNET/Inmarsat-C/EGC: USNC proposed to include the following data sentences: SM1, SM2, SM3, SM4 and SMB. Committee concurred.*

D. *USNC proposal 80/776/INF: Use of IEC 61162-3 Parameter Group Numbers (PGNs) in TC80 standards. USNC TC80 TAG recognizes increased desire to leverage more efficient binary PGN sentences defined in IEC 61162-3 (NMEA 2000) in lieu of limited ASCII data sentences in IEC 61162-1 (NMEA 0183). This proposal recommends optional use of PGNs, since they are more expansive and natively support network interfaces, such as 61162-450. Some delegations are averse to NMEA sentences being identified as Normative References and prefer to copy NMEA sentence definitions into the IEC standards (in case NMEA decided to not make their standards available in the future). The UKNC had questioned the value of PGNs and IEC 61162-3, since they were focused on older technology solutions used aboard SOLAS vessels. Determination was that for now, the currently required IEC 61162-1 (ASCII) sentences would remain mandatory, but the manufacturer could include the newer, more robust 61162-3 (binary, PGN) sentences as an option. Likewise, any new (mandatory?) sentences may be offered in the 61162-3 format.*

4. Was there any discussion for which the United States was unprepared? (e.g., late document distribution, addition of new items, etc.)

☐ Yes
☑ No

N/A

5. Did the U.S. extend an offer to assume any new TC/SC Secretariat or management positions?

☐ Yes
☑ No
(If yes, please indicate which position and provide Officer contact information.)

N/A

6. Did the U.S. extend an offer to host any future TC/SC meetings?

☐ Yes
☑ No

If yes, please identify:

Notes:
A. The USNC hosted the 2013 IEC TC80 Plenary meeting in San Diego, CA.
B. The UKNC has offered to host the 2017 Plenary in London.

7. Were any new issues raised which require, or might involve, coordination with other U.S. bodies? (Include coordination items with other U.S. TAGs, ANSI policy-level committees (AIF, AIC, the USNC TMC and/or Council, etc.)

☑ Yes
☐ No

If yes, please identify:

A. Collaboration with other USNC TAGs involved in cybersecurity, such as TC65, ISO or ISA.

8. Did the U.S. put forth/agree to put forth any New Work Items?

☑ Yes
☐ No

If yes, please identify:

A. USNC proposal 80/773/INF: Recommended way-forward to address cybersecurity for shipboard navigation and radiocommunications equipment and systems. This approach included the development of a Publically Available Specification (PAS) to IEC 60945 to address Removable Electronic Devices (REDs). The Committee agreed that the USNC would collaborate with another SDO (Standards Development Organization) to develop a PAS and submit it to IEC for a new standard. Then a new Work Group would be considered. The USNC may serve a lead role in that WG. ***Please see item 13.***

B. USNC proposal 80/775/INF: Establish a Maintenance Team (MT) to update IEC 61097-3 DSC (for MF, HF and VHF Class-A), IEC 61097-6 NAVTEX, and IEC 61097-4 Inmarsat C/EGC to conform to IEC 62923, the Bridge Alert Management (BAM) standard.

1) The Committee, considering additional inputs from other National Committees, elected to update the BAM standard (IEC 62923), but to defer it by 2 years. This is acceptable to the USNC as it provides time to permit maturing other associated standards to integrate with the BAM standard.

2) The Committee concurred to establish a MT to update IEC 61097-3 DSC. The Japan NC offered to serve as the Convener of that MT.

3) The Committee decided to wait until the next Plenary, when IEC 61097-3 DSC is completed, to discuss establishing a new Work Group to update IEC 62238 VHF DSC Class-D. Since there has been significant growth in the Class-D area, this may require a new IEC standard.

9. Was there any evidence of irregular voting by participating countries?

☐ Yes
☑ No

If yes, please identify any significant issues or concerns:

N/A

10. Are work items in the TC or SC being affected by related work in regional standards bodies (e.g., CEN, CENELEC, ETSI, PASC, NAFTA, COPANT, etc.)?

☐ Yes
☑ No
☑ No related regional activity

If yes, please explain:

N/A

11. Were any new issues raised which require, or might involve, coordination with emerging market countries?

☑ Yes
☐ No

If yes, please explain:

May-2015 IEC decision 153/4: CAG - Non-Participating TC or SC P-Members;
The SMB decided that before each TC/SC meeting, the IEC CO should produce a list of participation in the TC/SC concerned with indications of active or inactive participation; other than exceptions agreed during the TC or SC meeting, cases of inactive participation would result in the NC concerned being classed as an O-member.

- *This will impact the membership type of some TC80 P-Members.*
- *Notifications will be provided to NCs that are in jeopardy of being downgraded to O-member status. The determination will then be made during the 2017 TC80 Plenary.*
- *USNC participation in TC80 meetings and activities has been significant. USNC well exceeds the newly established criteria.*

12. Were any issues raised which relate to or impact existing U.S. regulatory matters?

☐ Yes
☑ No

If yes, please explain:

N/A

13. Please identify any IMMEDIATE U.S. TAG actions which will be required as a result of this international meeting.

Development and submission of a Publically Available Specification (PAS) to address cybersecurity/information assurance of maritime navigation and radiocommunication equipment and systems. The USNC provided input paper 80/773/INF that recommended a PAS to IEC 60945 to address Removable Electronic Devices (REDs). Four decisions came out of this recommendation:

A. That any PAS or associated cybersecurity efforts should not be targeted to 60945, which is currently in effect. There was concern that doing so would result in inappropriate application of new requirements on existing systems.
B. That the USNC TC80 TAG will develop and submit a cybersecurity PAS to IEC, via ANSI/USNC, that will result in a new Standard Number (not 60945 or 61162-460 (which applies to the 61162-450 network interface standard)). The USNC TC80 TAG will discuss the opportunity to team with RTCM to address shipboard navigation/radiocommunication cybersecurity, leading to the development of the PAS. RTCM may consider establishing a Special Committee to take on this work. The USNC TC80 TAG would then need to solicit for a Lead for this effort. NMEA will also be asked to contribute as they are currently developing cybersecurity to be included in the new NMEA OneNet shipboard network standard.
C. Based on the PAS, TC80 may then establish a new Work Group to address a standard for shipboard navigation/radiocommunication cybersecurity.
*D. The Committee discussed the value of providing a representative to participate in IEC's recently (May 2015) established ACSEC (Advisory Committee on information security and data privacy). The Convener for the to-be-established **Maritime Navigation and***

Radiocommunication Systems Cybersecurity WG *would be the likely candidate. Mr. Brian Fitzgerald (U.S. FDA) currently participates in the ACSEC.*

14. Please identify specific decisions which the U.S. delegation believes to be noteworthy for publication, publicity and/or development of a future article. If there are any, would you be willing to help develop an article for publication?

☐ *Yes*
☑ *No*

If yes, please explain:

N/A

15. What might be done to further promote the ANSI Federation's goal of "global standards that reflect U.S. interests?" (Consider such issues as how might the U.S. further promote acceptance of related American National Standards in international and, where applicable, regional fora?)

A. Continue the transition to a consistent practice of identifying NMEA Sentences as Normative Reference. This recommended course of action is in accordance with paragraph 6.2.2 of ISO/IEC Directives, Part-2. This approach treats NMEA standards the same as currently done with other IEC TC80 standards, RTCM, EIA, U.S. DOD, EUROCAE, VESA, SAE, etc. It helps prevent the current situation where it's not possible to trace IEC versions of NMEA sentences to the NMEA 0183 revision number, increasing instances of interoperability problems between equipments.

B. Consider an ANSI 'Cybersecurity Community of Interest' that would be established to identify and disseminate cybersecurity best practices across the appropriate USNC IEC (and perhaps ISO) TAGS. This is becoming more critical as the equipment for which we're developing standards will become increasingly integrated.

16. Has this report been provided to your TAG Administrator for US TAG distribution?

☑ *Yes*
☐ *No*

17. Other Comments:

A. IEC has published the unconfirmed meeting minutes from this Plenary. That document is included as enclosure (1) of this report. (IEC Ref: 80/782/RM)

September 2012