

## **Accredited Standards Committee C63®**

## **Electromagnetic Compatibility**

**Subcommittee 3: International Standardization** 

Chair: Don Heirman Vice Chair: Harry Hodes Secretary: Jerry Ramie

UL - LLC, Research Triangle Park, NC May 2, 2019; 8:00 AM - 10:00 AM - EDT

#### **Approved Minutes**

- 1. Call to Order: Chair The meeting was called to order at 8:04 AM-EDT
  - **1.1 Announcements: Chair's remarks -** This is the second meeting of the year for our SC. To follow our C63 operating procedures, we have to confirm the membership roster, scope and duties, and officers at this meeting. We are unique in that all the SC Chairs are members who assist us in harmonizing our work with other International SDOs and vice versa.
  - **1.2 Meeting logistics announcements: Host** provided info on lunch, restrooms, and access to the internet.
  - 1.3 Introductions: Secretary roll call (attending members with their affiliations and guests are shown separately below) Report any roster errors to the ASC-C63<sup>®</sup> Secretary
  - 1.4 Present membership

Subcommittee 3 Membership Roster Shaded names were not present.

| Name               | Role within Subcommittee 3   | Affiliation   |
|--------------------|--|---|
| Berger, Stephen    | Chair Subcommittee 8   | TEM Consulting                                      |
| Bazhanov, Vladimir | Chair Subcommittee 7   | VB Laboratory Services, LLC                         |
| DeLisi, Bob        | Chair Subcommittee 4   | UL LLC  |
| Dilay, Chris       | Member   | Naval Info. Warfare Center Pacific                  |
| Griffin, Andy      | Member<br>CISPR/H Technical Advisor                                      | CISCO Systems                                       |
| Hare, Ed           | Chair Subcommittee 5   | ARRL  |
| Heirman, Don       | Chair Subcommittee 3; Past Chair CISPR; CISPR/A Deputy Technical Advisor | Don HEIRMAN Consultants                             |
| Hodes, Harry       | Vice Chair Subcommittee 3  | Bay Area Compliance Laboratories Corp.              |
| Hoolihan, Dan      | Chair ASC-C63 <sup>®</sup>   | Hoolihan EMC Consulting                             |
| Klinger, Jeff      | Member   | Compatible Electronics                              |
| Kramer, Doug       | Member   | ETS-Lindgren  |
| Long, Randy        | Chair Subcommittee 6   | ANAB (ANSI National Accreditation Board)            |
| Mendoza, Ernesto   | Member<br>CISPR/F Technical Advisor                                      | Signify   |
| Popovici, Horia    | Member   | Innovation, Science and Economic Development Canada |
| Potts, Nate        | Member   | Keysight Technologies                               |

|                        | <del>_</del>                                     |                                   |
|------------------------|--|-----------------------------------|
| Samoto. Mits           | Member   | Liberty Labs Asia                 |
| Shellman, Marcus       | Chair Subcommittee 2                             | DOD – Joint Spectrum Center (JSC) |
| Thul, Travis           | Member   | Minnesota State College Southeast |
|                        | Non-Voting Members                               |                                   |
| Arnett, Dave           | Liaison Member<br>CISPR/I Technical Advisor      | HP                                |
| Fanning, Craig         | Liaison Member<br>CISPR/D Technical Advisor      | Elite Electronic Engineering      |
| Hofmann, H.R.<br>(Bob) | Emeritus Member                                  | Hofmann EMC Engineering           |
| Jones, Steve           | Liaison Member                                   | FCC Laboratory                    |
| Mahn, Terry            | Liaison Member<br>CISPR/B Technical Advisor      | Fish and Richardson               |
| Cibulka, Michael       | Liaison Member<br>TC77 & SC77B Technical Advisor | Rockwell Automation               |

AI-97: Jerry to change Mr. Dilay and Mr. Long affiliations on SC3 roster

**Guests and Observers:** (non-voting) Jerry Ramie, Victor Kuczynski, Jeff Evans, John Norgard, Bill Graff, Ross Quan, Michael Duncanson, Henry Benitez, Ross Carlton, Steve Jones

- 1.5 Quorum: (50% of roster + 1) constitutes a quorum. (rounding down) (18 roster members / 2 = 9 + 1 = 10 (therefore 10 people are required for a quorum) Was quorum achieved? (Yes)
- **2. Approval of the** Agenda: **Secretary -** Secretary scrolled through this agenda and then asked for approval. The Agenda was approved by acclamation.
- **2.1** Approval of the previous Minutes Minutes of 2/14/19 and 11/29/18 minutes were approved and no changes were requested.
- **2.2** Review of the <u>patent slides</u> The patent slides were reviewed and no patent issues were raised.
- 3. Review of **Subcommittee Membership**, Report any errors to the Secretary
  - 3.1 Review of Membership Guidelines

#### Subcommittees:

For an individual to remain a voting member of a Subcommittee, active participation in Subcommittee meetings and regular responses to Subcommittee email votes is required. Should a member fail to attend at least <u>one of three</u> consecutive scheduled meetings (in person or remotely via web conference (when used)) or respond to at least one of every two consecutive Subcommittee email votes, their membership in that Subcommittee may be at risk.

Note: Abstentions shall be treated the same as a "yes" or "no" vote regarding the requirement to respond to email votes.

#### **Working Groups:**

For an individual to remain a member of a Working Group, active participation is required. Should a member fail to attend at least <u>one of three</u> consecutive scheduled meetings (in person or via web conference (when used)) their membership in that Working Group may be at risk. Individual Working Groups may establish additional participation criteria and/or modify this requirement. (insert Member Attendance Log as below)

At this point there is no plan to have any working groups so as to keep all the work at the highest level for faster action and activity.

#### Member Attendance Log: Any errors in the log?

| 2/18/16 | 5/10/16 | 9/7/16 | 11/7/16 | 5/10/17 | 8/21/2017 | 11/9/17 | 2/7/18 | 5/3/18 | 9/19/18 | 11/29/18 | 2/14/19 | Full Name          |
|---------|---------|--------|---------|---------|-----------|---------|--------|--------|---------|----------|---------|--------------------|
|         |         |        |         |         |           | Х       |        | Х      |         |          |         | Berger, Stephen    |
| Х       | Х       | Х      | Х       | Х       | Х         | Х       | Х      | Х      | Х       | Х        |         | Bazhanov, Vladimir |
|         |         |        |         |         |           |         |        | Х      | Х       | Х        |         | DeLisi, Bob        |
| Х       | Χ       |        | Х       |         | Х         | Χ       |        | Χ      |         | Х        |         | Griffin, Andy      |
|         |         | а      | Х       | Х       |           | Χ       |        | Χ      |         | Χ        |         | Hare, Ed           |
| Х       | Х       | Х      | Х       | Х       | Х         | Х       | Х      | Х      | Х       | Х        | Х       | Heirman, Don       |
|         |         |        | Х       | Χ       |           |         |        | Χ      |         | Х        | Х       | Hodes, Harry       |
|         | Х       |        |         | Х       |           | Х       |        | Х      |         | Х        |         | Hoolihan, Dan      |
|         |         |        | Х       | Х       | Х         | Х       |        | Х      | Х       | Х        |         | Klinger, Jeff      |
|         |         |        |         |         |           |         | Х      | Χ      | Х       | Х        | Х       | Kramer, Doug       |
|         | Х       |        | Х       |         |           | Х       |        | Х      |         | Х        |         | Long, Randy        |
|         |         |        |         | Χ       | Х         |         | Χ      | Χ      | Х       | Х        | Х       | Mendoza, Ernesto   |
|         |         |        |         |         | Х         | Х       | Х      | Х      | Х       | Х        |         | Popovici, Horia    |
|         | Х       |        |         | Χ       | Х         | Х       | Х      | Χ      |         |          | Х       | Potts, Nate        |
|         |         |        | Х       | Х       |           |         |        |        | Х       | Х        | Х       | Samoto, Mits       |
|         |         |        |         |         |           |         |        |        |         |          |         | Thul, Travis       |
|         | Х       |        |         | Х       |           | Χ       |        | Χ      | Х       |          |         | Dilay, Chris       |
|         |         |        |         |         |           |         |        |        |         |          |         |                    |
|         | Х       | Χ      |         |         |           |         | а      | Х      | Х       |          | Х       | Arnett, Dave       |
| Х       | Х       | Х      | Х       | Х       | Х         | Х       | Х      | Х      |         |          | Х       | Fanning, Craig     |
| Х       |         |        |         | Х       |           | Х       | Х      | Х      | Х       |          | Х       | Hofmann, H.R.      |
|         |         |        |         |         |           |         |        |        |         | Х        |         | Jones, Steve       |
| Х       |         |        |         |         |           |         |        | Х      |         |          |         | Mahn, Terry        |
|         | Х       |        | Х       | Х       | Х         | Х       | Х      | Х      | Х       | Х        | Х       | Cibulka, Michael   |
| Х       | Х       | Х      | Х       | Х       | Х         | Х       | Х      | Х      | Х       | Х        | Х       | Ramie, Jerry       |

**Any members at risk?** These members are at risk: **Stephen Berger, Travis Thul** Al-98: Jerry to send a note to Mr. Berger & Mr. Thul notifying them of their memberships being at risk.

#### 3.2 Consideration of new members? Application for C63<sup>®</sup> Subcommittee Membership

No considerations were brought forward

#### 4. Approval of title, scope, Membership, Duties and Officers

1. Title: Subcommittee 3: International Standardization

#### 2. Scope:

Subcommittee 3 provides a forum for comparing international standards activities to ASC C63<sup>®</sup> membership standards activities and makes recommendations to the C63<sup>®</sup> Main Committee on possible US positions on international EMC matters, to facilitate harmonization of national and international standards, considering US regulatory as well as commercial requirements. Subcommittee 3 may make recommendations to the C63<sup>®</sup> Main Committee about introducing the work of C63<sup>®</sup> to the US National Committee Technical Advisory Groups for submission to international standards committees.

#### 3. Membership

See above clause 1.4

#### 4. Duties:

SC 3 shall review international EMC standards for technical issues that may affect C63<sup>®</sup> membership standards development. These reviews may lead to recommendations for action by C63<sup>®</sup> to promote harmonization of C63<sup>®</sup> standards with international standards. Via the SC 3 liaison representatives of the USNC TAGs for international standards organizations with EMC

activities (e.g., CISPR, TC77, ISO), information is shared in both directions with the following expectation:

To take action in the form of recommendations to the parent committee ( $C63^{\circ}$ ) of possible US positions on international EMC matters with the focus of striving for harmonization of national and international standards, considering US regulatory as well as commercial requirements. Conversely, recommendations can be made to the parent committee for introducing the work of  $C63^{\circ}$  to the USNC TAGs.

#### 5. Standard Maintained

ANSI C63.12-2015 - American National Standard Recommended Practice for Electromagnetic Compatibility Limits and Test Levels—document is current.

#### 6. Election of Officers - Chair

#### From the C63 operating procedures:

"The Chair of a Subcommittee shall be elected by the Subcommittee with a majority vote and confirmed by a majority vote of the Main Committee. The <u>Vice Chair and Secretary shall be appointed by the Chair of the Subcommittee</u>. The scope, duties, and membership of all Subcommittees shall be approved by the Main Committee at least annually. The officers and members of a Subcommittee need not be members of the Main Committee."

Chair: The Chair's first term continues to end of 2019; hence no election held at this meeting

<u>Vice Chair</u>: The Vice Chair was appointed as an officer in 2018 until his election is complete. Harry Hodes has been the appointee. Quorum was not achieved at the last meeting 2/14/19, so a motion to approve <u>Harry Hodes</u> as the Vice Chair was needed. Mr. Heirman moved, seconded by Mr. Hare, to approved Mr. Hodes as Vice Chair. There were <u>no objections</u> to the election of <u>Mr. Hodes as Vice Chair</u>. The chair congratulated Harry for his serving in this position which also includes keeping after the Reviewer Action Items discussed below.

#### 5. Current Status of C63 Standards - Chair

5.1 C63.12 - EMC Limit Setting - Heirman (no activity or WG report)

5.2 Status Matrix Review (Spring meeting only) Verify accuracy of document status matrix content and report any errors to the ASC-C63® Secretary. Is this information correct? (Yes)

| C63.12-    | EMC Limit Setting | <u>SC3</u> | Heirman, Don | No active | Published 1/29/2016 as an     |
|------------|-------------------|------------|--------------|-----------|-------------------------------|
| 2015       |                   |            |              | PINS      | update of C63.12-2007. No     |
| Learn more |                   |            |              |           | further work scheduled on the |
|            |                   |            |              |           | document. WG disbanded.       |

#### C63.12: C63.12-2015 American National Standard for Electromagnetic Compatibility Limits--Recommended Practice

Contact: <u>Heirman, Don</u> (Working Group Chair)

**Scope:** This recommended practice presents a rationale for developing limits and recommends sets of limits and test levels that are representative of current practice. These limits may be adjusted in particular applications as circumstances dictate.

Status: Published 29 Jan 2016.

**Purchase:** IEEE Store. To purchase individual standards, go to the IEEE store and search on the standard number.

# 5.3 Status of harmonization of all C63 Standards with international equivalents - Chair

C63 documents listed below in column 1 were compared with the standards indicated in the far-right column. Also in column 4 are the reviewer action items to do the noted comparisons. Where there were reviewers already identified, they are shown as well in this column.

The comparisons are to show where harmonization may or may not be possible and what action should be taken. All this will be in the reporting form for each standard shown. Column 2 shows the subcommittee that is responsible for the standards in column 1. Column 3 is a short hand for the topic covered in the standards.

Table 1: Comparisons of ASC-C63® Documents and International Documents

| C63 <sup>®</sup><br>Document | SC# | Subject                               | International Document  |
|------------------------------|-----|---------------------------------------|---|
| C63.2                        | SC1 | Test Instrumentation                  | CISPR 16-1-1 (Reviewer Action 1 - Doug)   |
| C63.4                        | SC1 | Measurements                          | CISPR 16-2-X; RA-2; CISPR 16-1-4 RA-3;<br>CISPR 32 RA-4 Petit<br>Doug needs a reviewer for this   |
| C63.5                        | SC1 | Antenna Calibration                   | CISPR 16-1-6 RA-5; SAE ARP 958 RA-6;<br>CISPR 16-1-4 (RA-7)   |
| C63.9                        | SC5 | Office Equipment Immunity             | IEC 61000-4-39 (RA-8) Griffin   |
| C63.10                       | SC4 | Unlicensed Transmitters               | ETSI Wireless requirements? (need SC4 member's help) Bob Delisi indicated that there are so many ETSI standards that might apply that this review will not be done. |
| C63.15                       | SC5 | Immunity                              | IEC 61000-4-x; RA-9; Heirman; CISPR 35 RA-10 Pettit   |
| C63.16                       | SC5 | ESD                                   | IEC 61000-4-2; RA-11; Worley; ISO 10605; RA-<br>12; Worley, SAE J1113-xx RA-13 Fanning  |
| C63.23                       | SC1 | Uncertainty                           | CISPR 16-4-2; RA-14; CISPR 16-1-4 RA-15   |
| C63.24 draft                 | SC5 | Generic In Situ Meas.                 | IEEE 473; RA-16;(Heirman-Kiger)   |
| C63.25.1                     | SC1 | Test Site Validation 1 GHz to 18 GHz) | CISPR 16-1-4<br>RA-17   |
| C63.25.2                     | SC1 | Test Site Validation 30 MHz to 1 GHz  | CISPR 16-1-4<br>RA-17   |
| C63.26                       | SC4 | Licensed Transmitters                 | ETSI wireless requirements mmWave possible comparison. RA-18  |
| C63.27                       | SC7 | Co-existence                          | IEC 62657-2 RA-19 Berger  |
| C63.28 draft                 | SC2 | Best Practices                        | No equivalent; RA-20 Shellman   |
| C63.29 draft                 | SC4 | Lighting products                     | CISPR 15; Runway lighting under IEC 61827  RA-21 Ernesto Mendoza (waiting for maturity of C63.29 before comparison)   |
| C63.30 draft                 | SC4 | Wireless Power Transfer<br>Products   | Bob assigned Travis: Draft amendments to CISPR 11 (RA-22), CISPR 14-1 (RA-23), CISPR 32; (RA-24) update to CISPR 12 (RA-25)   |
| C63.31 draft                 | SC4 | ISM equipment (FCC MP-5)              | CISPR 11; (RA-26) CISPR 14-1 induction cooking; (RA-27) DeLisi  |
|                              |     |                                       | CISPR/B/672/DC (4/14/17) RA-28<br>CISPR/B/700/DC (2/2/18) RA-29   |

Al-99: Jerry to send email to Berger & Bazhanov to confirm who will work on C63.27, copy Harry for the IEC 62657-2 document.

Al-100: Jerry to e-mail Marcus to supply a <u>template</u> report on to show that there is no equivalent international standard to C63.28. Don will then close the RA-20 item.

There are 29 **Reviewer Actions** shown in Table 1. The reviewer action assignments are initially given to the Subcommittee chairs (or WG chairs or their designee) noted below to find subcommittee reviewers to do the comparisons in the above table and to fill out the comparison reports using the template provided to the SC chairs.

<u>Harry Hodes</u> has been assigned to follow up to close these Review Actions: The "comparison report" form that reviewers **shall** use is available <u>here</u>.

RA-1 thru RA-7: Kramer (all SC1 content)

RA-8: Griffin RA-9: Heirman RA-10: Pettit

RA-11 thru 13: Worley RA-14 & 15: Kramer RA-16: Heirman / Kiger

RA-17 Kramer RA-18: DeLisi RA-19: Berger RA-20: Shellman RA-21: Mendoza RA-22-25: Thul RA-26-29: DeLisi

It was noted that reviewers for C63 subcommittee standards assigned to SC1 have been named. The information was not available for this meeting.

AI-100A: Doug Kramer to send to the SC3 secretary the list of those from SC1 that are assigned the reviewer action items noted just above.

#### 5.4. Status of naming reviewers and reports completed

This part of the agenda will be to identify the persons named for each RA. For those named, there will be time to review what is in their report using the report template.

AI-100B: Members of Subcommittee to review reports to see if they are sufficient and importantly show the need for action to harmonize. The reports are linked in the table below.

RA# Responsible **Task Due Date** Status party RA-1 Compare C63.2 to CISPR 16-1-1 Harry Hodes 5/1/19 Open Doug will provide RA-2 Compare C63.4 to CISPR 16-2-X Doug Kramer 5/1/19 another person RA-3 5/1/19 Doug will provide Compare C63.4 to CISPR 16-1-4 Doug Kramer another person RA-4 Compare C63.4 to CISPR 32 **Ghery Petit** 5/1/19 Open RA-5 Compare C63.5 to CISPR 16-1-6 Doug Kramer 5/1/19 List identical. similar and contradictory clauses. RA-6 Compare C63.5 to SAE ARP 958 Rev D Doug Kramer 5/1/19 Open

Table 2: Reviewer Actions from 2/14/19 Meeting of SC3

| RA-7   | Compare C63.5 to CISPR 16-1-4   | Doug Kramer  | 5/1/19  | Open  |
|--|---|--|---|---|
| RA-8   | Compare C63.9 to IEC 61000-4-39 & IEC 61000-4-3   | Jeff Evans   | 5/31/19   | Open  |
| RA-9   | Compare C63.15 to IEC 61000-4-x   | Don Heirman  | 2/14/19   | Closed Subject to multiple people involved based on C63.15  |
| <b>RA-10</b>   | Compare C63.15 to CISPR 35  | Ghery Pettit   | 5/1/19  | Open  |
| <b>RA-11</b>   | Compare C63.16 to IEC 61000-4-2   | Mike Cibulka   | 2/25/19   | <mark>Open</mark>   |
| RA-12  | Compare C63.16 to ISO 10605 (Automotive ESD)  | Rich Worley  | 2/28/19   | Open  |
| RA-13  | Compare C63.16 to SAE J1113-xx  | R. Lombardi  | 3/30/19   | Closed  |
| RA-14  | Compare C63.23 to CISPR 16-4-2  | Bob DeLisi   | 5/1/19  | open Record that if all the measurement uncertainty terms in the test procedure are not in CISPR 16-4-2, no MU can be calculated and hence MU does not apply, i.e. Ucispr cannot be fully computed to come up with the MU |
| RA-15  | Compare C63.5 to CISPR 16-1-6   | Nate Potts   | 5/31/19   | Duplicate of RA-5   |
| RA-16  | Compare C63.24 draft to IEEE 473  | Don Heirman<br>Chad Kiger  | 2/14/19   | Closed  |
|  |   |  |   |   |
| RA-17  | Compare C63.25 to CISPR 16-1-4 (two freq. ranges under C63.25.1 and C63.25.2)   | Doug Kramer  | 5/1/19  | Open  |
| RA-17<br>RA-18   | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements  | Doug Kramer  Bob DeLisi  | 5/1/19<br>2/14/18   | Open<br>Closed  |
| RA-18  | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible  | Bob DeLisi   | 2/14/18   | Closed  |
|  | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements  | J  |   |   |
| RA-18<br>RA-19<br>RA-20<br>RA-21                                     | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible  Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827   | Bob DeLisi  Steve Berger  Marcus Shellman  Ernesto Mendoza   | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18   | Closed  Open  No equivalents  |
| RA-18<br>RA-19<br>RA-20<br>RA-21                                     | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to CISPR 11  | Bob DeLisi Steve Berger Marcus Shellman Ernesto Mendoza Travis Thul  | 2/14/18<br>4/15/19<br>5/1/19  | Closed  Open  No equivalents found yet  |
| RA-18<br>RA-19<br>RA-20<br>RA-21                                     | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to   | Bob DeLisi  Steve Berger  Marcus Shellman  Ernesto Mendoza   | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18   | Closed  Open  No equivalents found yet  Closed  |
| RA-18<br>RA-19<br>RA-20<br>RA-21                                     | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to CISPR 11  | Bob DeLisi Steve Berger Marcus Shellman Ernesto Mendoza Travis Thul  | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18<br>5/1/19   | Closed  Open  No equivalents found yet  Closed  Open  |
| RA-18 RA-19 RA-20 RA-21 RA-22 RA-23                                  | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible  Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to CISPR 11  Compare C63.30 draft to CISPR 14-1   | Bob DeLisi  Steve Berger  Marcus Shellman  Ernesto Mendoza  Travis Thul  | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18<br>5/1/19<br>5/1/19                               | Closed  Open  No equivalents found yet  Closed  Open  Open  |
| RA-18 RA-19 RA-20 RA-21 RA-22 RA-23 RA-24 RA-25 RA-26                | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible  Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to CISPR 11  Compare C63.30 draft to CISPR 14-1  Compare C63.30 draft to CISPR 32  Compare C63.30 draft to CISPR 12  Compare C63.31 draft to CISPR 11                                   | Bob DeLisi Steve Berger Marcus Shellman Ernesto Mendoza Travis Thul Travis Thul Travis Thul Travis Thul Bob DeLisi Derek Walton                                | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18<br>5/1/19<br>5/1/19<br>5/1/19<br>5/1/19           | Closed  Open  No equivalents found yet  Closed  Open  Open  Open  |
| RA-18 RA-19 RA-20 RA-21 RA-22 RA-23 RA-24 RA-25 RA-26 RA-27          | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible  Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to CISPR 11  Compare C63.30 draft to CISPR 14-1  Compare C63.30 draft to CISPR 32  Compare C63.30 draft to CISPR 12  Compare C63.31 draft to CISPR 11  Compare C63.31 draft to CISPR 11 | Bob DeLisi  Steve Berger  Marcus Shellman Ernesto Mendoza Travis Thul  Travis Thul  Travis Thul  Travis Thul  Bob DeLisi Derek Walton  Bob DeLisi Derek Walton | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18<br>5/1/19<br>5/1/19<br>5/1/19<br>5/1/19<br>5/1/19 | Closed  Open  No equivalents found yet  Closed  Open  Open  Open  Open  Open  Open  |
| RA-18<br>RA-19<br>RA-20<br>RA-21<br>RA-22<br>RA-23<br>RA-24<br>RA-25 | under C63.25.1 and C63.25.2)  Compare C63.26 to ETSI wireless requirements mmWave possible  Compare C63.27 to IEC 62657-2  Compare C63.28 draft to "no equivalent"  Compare C63.29 draft to CISPR 15; Runway lighting under IEC 61827  Compare C63.30 draft to Draft amendments to CISPR 11  Compare C63.30 draft to CISPR 14-1  Compare C63.30 draft to CISPR 32  Compare C63.30 draft to CISPR 12  Compare C63.31 draft to CISPR 11  Compare C63.31 draft to CISPR 11 | Bob DeLisi  Steve Berger  Marcus Shellman Ernesto Mendoza Travis Thul  Travis Thul  Travis Thul  Travis Thul  Bob DeLisi Derek Walton Bob DeLisi               | 2/14/18<br>4/15/19<br>5/1/19<br>2/14/18<br>5/1/19<br>5/1/19<br>5/1/19<br>5/1/19           | Closed  Open  No equivalents found yet  Closed  Open  Open  Open  Open  Open  Open  Open  Open  Open  |

RA-22 to RA-29 awaiting maturity of the C63.x documents shown

AI-101: Don to provide CISPR/B/672/DC (4/14/17) and CISPR/B/700/DC (2/2/18) to DeLisi & Walton (RA-28&29)

Al-102: Jerry & Don to look at reports already received (linked above) and list in a table the conflicts, similarities and identical ones.

#### Summary:

- 1) We corrected the standard to be compared in Column 2 as needed
- 2) Third column identifies the new RA person responsible or kept the existing person

Al-103: Harry to send third column RA persons a reminder of their duty to complete their work by a date

#### 6. Other Old Business: Chair

**6.1 Written reports** - Written reports of this Subcommittee meeting shall be presented by the Subcommittee Chair at the Main Committee meeting. These reports shall be made using the <u>PowerPoint template</u>. Prior to the Main Committee meeting, the <u>SC report</u> and <u>approved previous meeting minutes</u> shall be provided to the projectionist for showing on the screen at the Main meeting. The Presentation and any written report shall also be sent by the Subcommittee Chair to the ASC-C63<sup>®</sup> Newsletter editor

#### 6.2 Coordination with SC2 for definitions – Chair.

Since there is <u>no activity on C63.12</u>, there are <u>no definitions to forward to SC2</u> as no other standard is being developed in this Subcommittee.

Al-104: Don will review C63.12 content at our upcoming webinar

- 7. New Business: Chair none
- **8.** <u>C63.org</u> **website use and updates: Secretary -** We normally post documents to the <u>SC3</u> <u>protected area</u>. If any SC or WG needs help with this posting, contact the subcommittee secretary.
- 9. Review of the Action Items: Secretary
  - **9.1 Review of Action Items from this meeting:** The action items below were read to be sure those with action items understand them and agree that they will take the indicated actions.

#### 9.2 Review of Action Items from previous meeting:

Note that the reviewer action item list is shown in Table 2 above. They are specifically directed at standards to be compared. The actions below are more general action needing to support the Subcommittee

Consolidated Action Items from 2/14/19 Meeting of SC3

| Al #   | Task   | Responsible  | Due    | Status  |
|--------|--|--------------|--------|---|
| AI-18: | Update Tolerance Table in CISPR 32 to take advantage of the work in the C63.4 working group. (Goal is to harmonize the table between C63.4 & CISPR 32) | Mark Arthurs | 5/1/19 | Closed  |
| AI-20: | Look at modulation in C63.9 with potential for introduction into SC77B through the US National Committee.  | Andy Griffin | 5/1/19 | OPEN Unique<br>test, possible<br>in 61000-4-3?<br>Modulation is<br>not AM but<br>more varied. |
| AI-26: | Review CISPR 11, CISPR 14-1 & CISPR-32 for consideration for use in C63.30.  | Travis Thul  | 5/1/19 | OPEN on-<br>going basis   |
| AI-27: | Review CISPR 11, 14-1 for consideration for use in   |              | 5/1/19 | OPEN  |

|            | •   |  |         |  |
|------------|---|--|---------|--|
|            | C63.31.  CISPR 11 totally addresses Industrial, Scientific, and Medical device emission tests, both radiated and conducted. Maybe Derek can list what is covered and not covered in CISPR 11 or in C63.31 so it is clear where we are and where the FCC MP-5 can be bolstered with the info from at least CISPR 11 and possibly 14-1 and 14-2 (if anything)  Horia advocating for C63.4 test methods. | Derek Walton<br>Bob DeLisi                             |         | C63.31 Draft need to mature  |
| AI-36:     | Supply note on progress of IEC 61000-4-3. What is   | Andy Griffin   | 3/30/19 | OPEN New   |
| Al-oo.     | happening between 1 & 6GHz? (immunity)  | Andy Grillin   | 3/30/13 | CDV 77B-798<br>has replaced<br>the old one,<br>voting in mid-<br>May |
| AI-57:     | Generate comparison table to summarize requirements from 1-6 GHz. (emissions)   | Andy Griffin   | 5/1/19  | OPEN   |
| AI-58:     | Form WG with Andy, Zhong & Nate to identify a single antenna calibration requirement. (Std. Site method in ANSI, Section 5?)  | Bob DeLisi<br>Andy Griffin<br>Zhong Chen<br>Nate Potts | 5/31/19 | OPEN CISPR<br>16-1-6 (Cl. 8.4)<br>is same as<br>C63.5 (Cl<br>5.1.3)  |
| AI-<br>96A | Identify what is similar, different, or not considered per the categories in the report form and place that information into the form   | Richard Worley   | 3/30/19 | OPEN   |

### 10. Time and place of next meeting: Chair - Aug 28 (2:00 - 4:00PM-EDT) meeting set 6/4

**12. Closing remarks and Adjournment: Chair** - We need more reports before our next meeting. He noted that the WG developing C63.28 on EMC best practices is anxious to have these reports as part of their document probably in the form of annexes. The Chair thanked the group for their efforts and adjourned the meeting at 9:56AM-EDT.

Consolidated Action Items from 5/2/19 Meeting of SC3

|        | Consolidated Action Items from 5   | zi is weeting of soc       | <u>,                                      </u> |   |
|--------|--|----------------------------|--|---|
| Al #   | Task   | Responsible                | Due  | Status  |
|        |  | party                      | Date   |   |
| AI-20: | Look at modulation in C63.9 with potential for introduction into SC77B through the US National Committee.  | Andy Griffin               | 8/28/19  | OPEN Unique<br>test, possible<br>in 61000-4-3?<br>Modulation is<br>not AM but<br>more varied. |
| Al-26: | Review CISPR 11, CISPR 14-1 & CISPR-32 for consideration for use in C63.30.  | Travis Thul                | 8/28/19  | OPEN on-<br>going basis   |
| AI-27: | Review CISPR 11, 14-1 for consideration for use in C63.31.  CISPR 11 totally addresses Industrial, Scientific, and Medical device emission tests, both radiated and conducted. Maybe Derek can list what is covered and not covered in CISPR 11 or in C63.31 so it is clear where we are and where the FCC MP-5 can be | Derek Walton<br>Bob DeLisi | 8/28/19  | OPEN<br>C63.31 Draft<br>need to mature  |

|             | - 10 -  |  |         |  |
|-------------|---|--|---------|--|
|             | bolstered with the info from at least CISPR 11 and possibly 14-1 and 14-2 (if anything)   |  |         |  |
|             | Horia advocating for C63.4 test methods.  |  |         |  |
| AI-36:      | Supply note on progress of IEC 61000-4-3. What is happening between 1 & 6GHz? (immunity)  | Andy Griffin   | 8/28/19 | OPEN New<br>CDV 77B-798<br>has replaced<br>the old one,<br>voting in mid-<br>May |
| AI-57:      | Generate comparison table to summarize requirements from 1-6 GHz. (emissions)   | Andy Griffin   | 8/28/19 | OPEN   |
| AI-58:      | Form WG with Andy, Zhong & Nate to identify a single antenna calibration requirement. (Std. Site method in ANSI, Section 5?)          | Bob DeLisi<br>Andy Griffin<br>Zhong Chen<br>Nate Potts | 8/28/19 | OPEN CISPR<br>16-1-6 (Cl. 8.4)<br>is same as<br>C63.5 (Cl<br>5.1.3)              |
| AI-<br>96A  | Identify what is similar, different, or not considered per the categories in the report form and place that information into the form | Richard Worley   | 8/28/19 | OPEN   |
| AI-97:      | Change Mr. Dilay and Mr. Long affiliations on SC3 roster  | Jerry Ramie  | 8/28/19 | Closed   |
| AI-98:      | Send a note to Mr. Berger & Mr. Thul notifying them of their memberships being at risk.   | Jerry Ramie  | 8/28/19 | Closed<br>sent 6/4   |
| AI-99:      | Send email to Berger & Bazhanov to confirm who will work on C63.27, copy Harry for the <b>IEC 62657-2</b> document.                   | Jerry Ramie  | 8/28/19 | Closed<br>Sent 5/29  |
| AI-<br>100: | E-mail Marcus to supply a template report on C63.28 (This will allow Don to close the RA-20 item)                                     | Jerry Ramie  | 8/28/19 | Closed<br>Sent 5/29  |
| AI-<br>100A | Send to the SC3 secretary the list of those from SC1 that are assigned the reviewer action items noted just above.                    | Doug Kramer  | 8/28/10 | OPEN   |
| AI-<br>100B | Review reports to see if they are sufficient and importantly show the need for action to harmonize.                                   | Subcommittee members                                   | 8/28/10 | OPEN   |
| AI-<br>101: | Don to provide CISPR/B/672/DC (4/14/17) and CISPR/B/700/DC (2/2/18) to DeLisi & Walton (RA-28&29)                                     | Don Heirman  | 8/28/19 | OPEN   |
| AI-<br>102: | Jerry & Don to look at reports already received and list in a table the conflicts, similarities and identical ones                    | Jerry Ramie<br>Don Heirman                             | 8/28/19 | OPEN   |
| AI-<br>103: | Send third column RA persons a reminder of their duty to complete their work by a date  | Jerry Ramie  | 8/28/19 | Closed<br>Sent 5/29  |
| AI-<br>104: | Don will review C63.12 content at our upcoming webinar  | Don Heirman  | 8/28/19 | OPEN   |