IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 10jun21 |
| Name | Affiliation | Address | Email |
|  |  |  |  |
| Author and Officer presiding:  |
| Jay Holcomb, Chair, RR-TAG | Itron | Liberty Lake, (Spokane) WA | jholcomb@ieee.org |

Co-Vice-chairs are Stuart Kerry (OK-Brit/Self) and Al Petrick (Skyworks Solutions)

Abstract

Minutes of the IEEE 802 RR-TAG teleconference

These are the Minutes of the IEEE 802 RR-TAG teleconference Thursday, 10jun21

Chair calls the meeting to order at 15:02et

1. Chair presents slides 2 – 6 of 802.18-21/0067r01, the call to order and administrative items
	1. Includes IEEE 802 meeting and participant’s guidelines and requirements.
2. Chair presents slides 7, the agenda:
	1. Call to Order.
		1. Attendance is not on IMAT
		2. Remember to mute when not speaking, thanks.
		3. Please request Q in the chat window.
	2. Administrative items
		1. Someone to take some notes, jay
		2. Attendance & monitor chat window, Stuart K
	3. Approve agenda, last minutes & announcements.
	4. Discussion items
		1. EU Items
		2. Other Regions Items
		3. ITU-R Items
		4. MSGs on 6 GHz
		5. IEEE 802 Stds Table of Frequency Bands
		6. General Discussion Items
	5. Actions required.
		1.
		2. All-ongoing-WRC-23 AIs viewpoints, & restructure ext. influence
		3. Anything new today
	6. AOB and Adjourn
3. Chair presents slides 8 - 9 Administrative – Motions and more
	1. **Motion: To approve the agenda as presented on previous slide**

Moved by: Stuart Kerry (OK-Brit, self)

Seconded by: Vijay Auluck (self)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Motion:** To approve the minutes from the IEEE 802.18 teleconference in document <https://mentor.ieee.org/802.18/dcn/21/18-21-0066-00-0000-minutes-03jun21-rrtag-teleconference.docx> 04-Jun-2021 15:24:07 ET with editorial privilege for the 802.18 chair

Moved by: Al Petrick (Skyworks)

Seconded by: Ben Rolfe (BlindCreek Assoc)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Administrative moving forward**
		1. For **July 2021** that was in Madrid, Spain, the LMSC(EC) on 05Mar21 **approved to cancel the in-person 802 Plenary.**
			1. At the EC teleconference Tuesday (06Apr), approved 09-23 July 21 dates.
			2. Also the registration fee was approved. The plan:
			3. $50 – till 30June $75 registration fee after 30june. **<<<<** just one fee for all WGs/TAGs combined
			4. registration is open: **REGISTRATION WEBSITE:**[**https://cvent.me/D5LYLq**](https://cvent.me/D5LYLq)
			5. reminder sent on 28june (2 days, before fee increases) and on 30june last day before fee increases.
			6. reminder sent on 05 july – notifying of $75 fee started 01july
			7. For .18 will plan on: 15 & 22Jul21 (normal Thursday’s 1500et, looking at 2 hour slot the 22nd. )
				1. Do not want to overlap with .19 with the 2 hr slot.
				2. The extra hour will focus on IEEE 802 WRC-23 AIs viewpoints
				3. Looking at other WGs/TAGs:

.11: 12-20 jul 21 time slot over .18: 13:30-15:30 (times from May interim)

.15: 13-21 jul 21 time slot over .18: 15:00-17:00 (times from May interim)

.19: tbc: 12th 4et mon & 15th 4et thurs is the normal times

.24: tbc wed 10:30et, normal time, though which wed?

* + 1. For **Sept 2021,** it will be an electronic Wireless Interim, with a ($50, $75, $125) registration fee for all groups.
			1. Dates are Friday 10sep to our .18 meeting on 23sep21. .18 will meet our normal Thursday’s, 16th and 23rd.
			2. Looking at a wireless opening meeting Friday 10sep21 at 0900et (similar to what was done at f2fs)
1. Chair presents slides 10 & 11, **EU items to share**
	1. **General EU info:** [**<ojeu>**](https://eur-lex.europa.eu/oj/direct-access.html)[**<HStds>**](https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/)[**https://www.etsi.org/deliver/etsi\_en/**](https://www.etsi.org/deliver/etsi_en/)
	2. **Remember – BRAN documents can be found in the 802.11 private area documents (daily refresh)**
	3. **ETSI –** [**<BRAN>**](https://portal.etsi.org/tb.aspx?tbid=287&SubTB=287) **next call #110 18-25jun21**
		1. BRAN-EN 303 687 rapporteur's meeting #3 regarding NB FH, meeting tomorrow (11jun), to set up for plenary next week. Seems to be a difference of opinion on LDT (Local Descriptor Table), DAA (Detect-and-Avoid) and others. Would like consensus before the plenary. 6 contributions: <https://portal.etsi.org/Contribution.aspx?MeetingId=41975>

* + 1. 03jun: Call today, worked on LS statement to send out, 1) Country Determination Capability, 2) changes to the text on Access methods in EN 301 893 (5 GHz).
		2. EN 301 893 (5 GHz), EN 303 687 (6 GHz), User Access Restrictions (UAR), Country Determination Capability
	1. **CEPT – ECC** [**<WGSE>**](https://cept.org/ecc/groups/ecc/wg-se/client/introduction/) **next call #89 27Sep-01Oct21**
		1. 27.04.2021; WG SE; Technical studies for the update of the Ultra Wide Band (UWB) regulatory framework in the band 6.0 GHz to 8.5 GHz [Draft ECC Report 327](https://urldefense.com/v3/__https%3A/cept.org/files/9522/Draft%2A20ECC%2A20Report%2A20327.docx__;JSUl!!F7jv3iA!k26S1EgCmX37sl4ZC8IYCGiAIefjZBRroD3S9XBysOwm_97xpS4TIOVS6UC1CW0h5Q$)
		2. Doriana Guiducci; Please send your comments to: PublicConsultation@eco.cept.org; due: 09.07.2021
	2. **CEPT – ECC** [**<SE45>**](https://cept.org/ecc/groups/ecc/wg-se/se-45/client/introduction/) **next call #14 28-29oct21**
		1. nothing was shared.
		2. 03jun: The group started its work to further study OOB emissions below 5935 MHz from Very Low Power (VLP) WAS/RLAN devices in the 6 GHz band, to protect CBTC systems that operate in the band 5915-5935 MHz.
	3. **CEPT – ECC** [**<WGFM>**](https://cept.org/ecc/groups/ecc/wg-fm/client/introduction/) **next call #100, 04-08Oct21**
		1. nothing was shared.
		2. 03jun: WGFM approved for public consultation, a new draft ECC Report on 5.8 GHz RLAN and a draft new ECC Report on digitising Maritime VHF communications. The meeting also agreed the public consultation of a new ECC Decision on HD GB-SAR and a new ECC Decision on FSS uplink in Q&V bands. Additionally, there were several amendments agreed for public consultation to Recommendations for SRD and FRMCS.
		3. Approved by WG FM for public consultation
			1. Draft new ECC Report on RLAN at 5.8 GHz
			2. Draft revision of ERC/REC 70-03 Annex – several
		4. To be approved by the ECC for publication
			1. Draft revision of ECC/DEC/(04)08 on RLAN at 5 GHz
			2. Draft CEPT Report 79 on RLAN at 5 GHz
1. Chair presents slides 12, **Other regions (outside EU-Stds and USA), items to share**

* 1. NZ – RSM – has a consultation regarding their spectrum plan for future use of 5925 - 7125 MHz
		1. <https://www.rsm.govt.nz/projects-and-auctions/consultations/planning-for-wlan-use-in-the-6-ghz-band/>
		2. <https://mentor.ieee.org/802.18/dcn/21/18-21-0069-00-0000-rsm-nz-wlan-use-in-the-6-ghz-band-discussion-document.docx>
		3. Initially, RSM proposes to make the bottom 500 MHz of the 6 GHz frequency band (5925 - 6425 MHz) available for WLAN use.
		4. 24 dBm (11 dBm/MHz) for indoor use only
		5. 14 dBm (1 dBm/MHz) for all locations (includes user devices, outdoor access points)
		6. RSM are also considering radio licensing or an AFC based approach to allow higher output power.
		7. comments can be submitted to Radio.Spectrum@mbie.govt.nz with the subject line “Consultation Submission - WLAN use in the 6 GHz band” . Submissions due: 28 June 2021, 5:00pm
	2. Canada – ISED – is seeking comments on: RSS-248, issue 1, “Radio Local Area Network (RLAN) Devices in the 5925-7125 MHz band” which sets out the certification requirements for licence-exempt low-power RLAN devices operating indoors in the frequency band 5 925 - 7 125 MHz. Comments due 16 Aug 21.
		1. <https://www.rabc-cccr.ca/ised-radio-standards-specifications-rss-248-issue-1-june-2021-draft-radio-local-area-network-rlan-devices-in-the-5925-7125-mhz-band/>
		2. <https://mentor.ieee.org/802.18/dcn/21/18-21-0070-00-0000-canadian-6-ghz-consultation-rss-248.pdf>
		3. Brazil – ANATEL – also has a consultation to update the testing procedures due to the updates in the technical requirements in the past year or two, It does include 6GHz and the ITS band.
		4. It is Portuguese and will end 05aug21.
1. Chair presents slide 14, **ITU-R items to share**
	1. FCC - World Radiocommunication Conference Advisory Committee; Informal Working Groups
		1. Sent a notice advising interested persons that the fourth meeting of the World Radiocommunication Conference Advisory Committee (WAC) will be held on Tuesday, September 28, 2021 at 11:00 a.m. (et)
		2. <https://www.fcc.gov/document/wrc-advisory-committee-schedules-4th-meeting-and-meetings-its-iwg>
		3. <https://mentor.ieee.org/802.18/dcn/21/18-21-0071-00-0000-fcc-wrc-23-wac-schedules-4th-meeting-and-meetings-of-its-iwg.docx>
	2. Public Notice was sent out before asking for interested parties to fill out an application to become a voting participants. Maybe Contact: Dante Ibarra at (202) 418-0610, email: Dante.Ibarra@fcc.gov, if we want to be a member.
		1. Though, open for all to listen in and send in live questions, though must be on the committee to vote.
		2. There are several from IEEE 802 that do attend these committees.
	3. WAC Web site: <https://www.fcc.gov/wrc-23>
		1. To subscribe to iwg1, iwg2, iwg3, iwg4 or wac23 see: <https://www.fcc.gov/wrc-23-advisory-committee-listserve-0>
		2. iwg2 is the terrestrial services and they cover wireless.
	4. IEEE 802 viewpoints on WRC-23 agenda items. **ad hoc: 5 folks stepped up. Are there any others to help?**
		1. Doc for viewpoints: <https://mentor.ieee.org/802.18/dcn/21/18-21-0039-00-0000-ieee-802-viewpoints-on-wrc-23-agenda-items.pptx>
		2. Key item was to review what we can on responses to consultations many countries are doing on topics related to WRC-23 AIs, e.g. on 6 GHz that is included in AI 1.2
		3. Though this process could work for other Agenda Items that maybe of interest to us also.
			1. It does seem the Arab states are engaging quicker than other regions, e.g. on 6 GHz.
			2. Oman has a consultation out on Wi-Fi 6;
				1. <https://www.tra.gov.om/En/ViewPublicConsultations.jsp?code=33>
			3. FCC WAC has a *preliminary* view on AI 1.2, we should look at this.
				1. <https://www.fcc.gov/us-contributions-sent-citel-pccii-wrc-23>
			4. Don’t forget the actual ITU-R WPs will be working AIs they have.
			5. **Next discussions will be during July 2021 electronic plenary**.
		4. Reference:
			1. Updated WRC-23 Agenda Item list: [https://mentor.ieee.org/802.18/dcn/20/18-20-0107-01-0000-res-811-wrc-19-wrc-23-agenda-items.docx](https://mentor.ieee.org/802.18/dcn/20/18-20-0107-00-0000-res-811-wrc-19-wrc-23-agenda-items.docx)
			2. btw- the initial AIs to consider IEEE 802 viewpoints:
				1. 1.1 -800-4 990 MHz and Resolution 223. Connection w/ITS going there?
				2. 1.2 -300-3 400MHz, 3 600-3 800MHz, 6 425-7 025MHz, 7 025-7 125MHz and 10.0-10.5GHz for International Mobile Telecommunications (IMT) and resolution 245.
				3. 1.5 -470-960 MHz in Region 1-consider possible regulatory actions, Resolution **235.**
				4. 10 **-**recommend to the Council items for inclusion in the agenda for the next WRC
2. Chair presents slide 15, **MSG 6 GHz**
	1. **The WInnforum “6 GHz Committee”, all groups meet every 2 weeks except interference-weekly (168people)**
		* 1. <https://www.wirelessinnovation.org/6ghz-multistakeholder-committee>
			2. For access to documents from the committee, can request to be an observer from the MSG below.
		1. New org: 2 (now) focus areas:
			1. 1) AFC Functional Specification -WG – includes: Interference-TG, Incumbent Info-TG, security (new) and 3GPP-TG
			2. 2) AFC Test and Certification-WG
		2. nothing new today
		3. 27may: WInnforum. There is a lot of work underway addressing standard power deployments.
			* 1. All WInnform dialogue is open to those that want to observe. This group is making significant process and good execution.
	2. **From the FCC R&O, an informal MSG (“Group”) has also been formed. (260+ people)**
		1. <https://groups.wirelessinnovation.org/wg/6MSG/dashboard>.
			1. **Work stream 1 - interference protection and resolution (CableLabs, EPRI, Lake Cty, APCO) Meets biweekly, from 28Jan21-10:00 et,**
			2. Work stream 2 - correct incumbent data (ULS) (Comsearch, APCO)
			3. Work stream 3 - AFC and how it provides protection, etc. (Charter, Google, UTC)
			4. Overall Co-chairs: NPSTC, UTC, WFA, WISPA.
		2. nothing new today
		3. 27may: MSG has plenary meeting 5/28. It’s a briefing by all the workstreams on their activities. WS#1 is the most active which cover interference.
			1. That group is working towards a final report. They will seek contributions for the workMeets tomorrow, 28th, mostly briefing of the Work Streams.
			2. WS1 is working on a final report and looking for contributions for the final report.
			3. There is no firm date to finish up but trying to get to done
3. Chair presents slide 16, **Table of IEEE 802 Stds Frequency Bands**
	1. **Problem statement**
		1. It is difficult for 802 wireless standards developers to quickly and accurately identify all the frequency bands by the family of 802 wireless standards in a regularly maintained database.
		2. The primary application is to simplify identification of potential frequency bands for coexistence assessment.
	2. **Initial Audiences:**
		1. 1) 802 wireless standards developers
		2. 2) 802.19 wireless coexistence working group
	3. **Ad hoc calls**
		1. **The spreadsheet is going, always look for latest:**
		2. <https://mentor.ieee.org/802.18/dcn/21/18-21-0036-04-0000-frequency-table-template.xlsx>
	4. 03jun: Some emails working on Status of the standard/amendment of: Published, Approved, Project, and other emails on 802.11 specifics.
	5. 27may: From last ad hoc, most all captured in rev05 if the spreadsheet. Some highlights:
		1. Some highlights:
			1. There will be multiple rows for a given frequency range, one for each standard/amendment.
			2. Adding the year to the standard and the amendment was worked through and is leading to the approved date, not the published date. (the date on the cover page.)
			3. Also, a discussion on the Standard or Project column, what about if approved but not published yet, that should be noted. Also, should pre-Par amendments be lists, or study groups. Maybe this is a status column? Will review this further.
		2. Also reviewed a 2nd spreadsheet with 802.11 clauses with frequencies for setting for the actual frequency ranges:
			1. <https://mentor.ieee.org/802.18/dcn/21/18-21-0064-00-0000-frequency-table-input-802-11-phys.xlsx>
	6. The next meeting will be 22jun21. (call-in in backup slides here)
4. Chair presents slides 17-18, **General Discussion.**
	1. Further to AOB from last week, ITS America and AASHTO are taking legal action to preserve 5.9 GHz spectrum for V2X: Article:
		* 1. [ITS America and AASHTO take legal action to preserve 5.9GHz spectrum for V2X | Traffic Technology Today](https://www.traffictechnologytoday.com/news/connected-vehicles-infrastructure/its-america-and-aashto-take-legal-action-to-preserve-5-9ghz-spectrum-for-v2x.html)
		1. The 5.9 GHz Notice of Appeal and 5.9 GHz Petition for Review:
			1. [5.9-GHz-Petition-for-Review-Exhibit.pdf (itsa.org)](https://itsa.org/wp-content/uploads/2021/06/5.9-GHz-Petition-for-Review-Exhibit.pdf)
			2. [5.9-GHz-Notice-of-Appeal-Exhibit.pdf (itsa.org)](https://itsa.org/wp-content/uploads/2021/06/5.9-GHz-Notice-of-Appeal-Exhibit.pdf)
		2. So, the 5.9GHz story is not really at the end.
		3. ITS America was the original petitioner. The argument is for this particular allocation, it was directed by Congress to find that allocation. Only Congress can remove it. AASHTO is American Association of State and Highway Transportation Officials. It’s a nonpartisan non-profit professional society. They set standards-specifications for highways, bridges, etc.
		4. People keep their cars for 15-20 years. Any technology should be backward compatible e.g. P802.11bd. Aesthetics (antennas) is also important to car manufacturers. The shark fin blade type of antenna works well.
	2. fyi: Expanding Flexible Use of the 12.2-12.7 GHz Band
		1. FCC ECFS: [https://www.fcc.gov/ecfs/search/............wtb 20-443](https://www.fcc.gov/ecfs/search/filings?proceedings_name=20-443&sort=date_disseminated,DESC)
		2. Reply comments were extended to 07July. FCC 21-13
		3. The NPRM was put on mentor with the seek comments highlighted.
			1. <https://mentor.ieee.org/802.18/dcn/21/18-21-0056-00-0000-expanding-flexible-use-of-the-12-2-12-7-ghz-band-fcc-21-13a1-rcd.docx>
	3. **FCC Proposed Rules** - **Allocation of Spectrum for Non-Federal Space Launch Operations**
		1. **FR Document:** [2021-11063](https://urldefense.com/v3/__https%3A/www.federalregister.gov/documents/2021/06/10/2021-11063/allocation-of-spectrum-for-non-federal-space-launch-operations?utm_campaign=subscription*mailing*list&utm_source=federalregister.gov&utm_medium=email__;Kys!!F7jv3iA!kxFpaFesaLb0jtRneMv9R1lRJzXIeSiFxtOtrOKdDFxygjYmK9myrwzxuHZCA_6D9g$); **Citation:** 86 FR 30860; [PDF](https://urldefense.com/v3/__https%3A/www.govinfo.gov/content/pkg/FR-2021-06-10/pdf/2021-11063.pdf?utm_campaign=subscription*mailing*list&utm_source=federalregister.gov&utm_medium=email__;Kys!!F7jv3iA!kxFpaFesaLb0jtRneMv9R1lRJzXIeSiFxtOtrOKdDFxygjYmK9myrwzxuHZCkZFdWA$)Pages 30860-30887 *(28 pages);* [Permalink](https://urldefense.com/v3/__https%3A/www.federalregister.gov/d/2021-11063?utm_campaign=subscription*mailing*list&utm_source=federalregister.gov&utm_medium=email__;Kys!!F7jv3iA!kxFpaFesaLb0jtRneMv9R1lRJzXIeSiFxtOtrOKdDFxygjYmK9myrwzxuHauU-4wzA$)
		2. Abstract: In this document, the Federal Communications Commission (Commission) takes steps towards establishing a spectrum allocation and licensing framework that will provide regulatory certainty and improved efficiency and that will promote innovation and investment in the United States commercial space launch industry. In the Further Notice of Proposed Rulemaking, the Commission seeks comment on the definition of space launch operations, the potential allocation of spectrum for the commercial space launch industry, including the 420-430 MHz, 2025-2110 MHz, **and 5650-5925 MHz bands.** In addition, the Commission seeks comment on establishing service rules, including licensing and technical rules and coordination procedures, for the use of spectrum for commercial space launch operations. Finally, the Commission seeks to refresh the record on potential ways to facilitate Federal use of commercial satellite services in what are currently non-Federal satellite bands and enable more robust federal use of the 399.9-400.05 MHz band.
		3. Comments are due on or before July 12, 2021; reply comments are due on or before August 9, 2021.
		4. Chair figure latest time for comments to FCC- NPRM on space launch operations:
		5. If .18 approved by 24June, could do an EC motion. (To wait till 01Jul meeting, would need EC early close.)
		6. It was brought up this does touch the ITS band.
5. Chair presents slide 19, **Actions required.**
	* Chair: where to signup for FCC WAC (WRC-23) list server: <https://www.fcc.gov/wrc-23-advisory-committee-listserve-0>
	* Chair figure latest time for comments to FCC- NPRM on space launch operations:
		1. If .18 approved by 24June, could do an EC motion. (To wait till 01Jul meeting, would need EC early close.)
	* All – input for a table of countries implementing 6GHz and a brief summary of their rules, consultations, etc.
	* All – ongoing – bring to RR-TAG info they hear, e.g. different country consultations, on the WRC-23 AIs we are interested in.
6. Chair presents slide 20 Any Other Business
	1. USA Legislation - on technology and innovation moving forward. yes, very large.
	2. <https://www.rpc.senate.gov/legislative-notices/s1260_the-united-states-innovation-and-competition-act>
7. Chair presents slide 21, Adjourn.
	1. Next “weekly” teleconference (sched’d to 02sep21): 17jun21–*15:00–<15:55* ET
		1. Call in info: <https://mentor.ieee.org/802.18/dcn/16/18-16-0038-17-0000-teleconference-call-in-info.pptx> (new call-in starting 14Jan21)
			1. Also, see back up slide in this agenda.
		2. All late changes/cancellations will be sent out to the 802.18 list server.
	2. Overall IEEE 802 schedule: <http://ieee802.org/802tele_calendar.html>
	3. Adjourn:
		1. Any objection to Adjourn.
		2. None heard, Adjourn at 15:42et
* **The next face to face meeting is tbd.**
* **The next IEEE 802 plenary will be electronic in July 2021**
* **The next IEEE 802.18 (wireless) interim will be electronic in Sept 2021**
* **Thank You**
1. Attendance

Voting members:

Auluck Vijay Self

Boldy David Broadcom Corporation

Holcomb Jay Itron Inc.

Jeffries Timothy FutureWei Technologies, Inc.

Kain Carl USDOT, Noblis, Inc.

Kenney John TOYOTA InfoTechnology Center U.S.A.

Kerry Stuart OK‐Brit, Self

Levy Joseph InterDigital, Inc.

Nikolich Paul Self, HPE, Huawei, Wyebot, UNH BCoE, YAS BBV, Origin Wireless

Petrick Al Skyworks Solutions Inc.

Rolfe Benjamin Blind Creek Associates

Stanley Dorothy Hewlett Packard Enterprise

Yucek Tevfik Qualcomm

Non-Voting :

Pirhonen Riku NXP Semicondustors