IEEE 802.18

Radio Regulatory-TAG

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| Radio Regulatory Technical Advisory Group Minutes |
| Date: 21 May 20 |
| Name | Affiliation | Address | Phone | Email |
|  |  |  |  |  |
| Author and Officer presiding:  |
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Abstract

Minutes of the IEEE 802 RR-TAG Teleconference.

These are the Minutes of the IEEE 802 RR-TAG Teleconference, Thursday, 21 May 20

**Voters for this meeting:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** | **Attendance** |
| **21may** | **14may** | **07may** | **30apr** | **23apr** | **16apr** | **09apr** | **08apr** | **07apr** |
| Auluck | Vijay | Self Employed | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** |
| Berens | Friedbert | FBConsulting Sarl |  |  |  |  |  |  |  | **x** | **x** |
| Boldy | David | Broadcom |  |  |  |  | **x** |  | **x** |  |  |
| de Vegt | Rolf | Qualcomm Incorporated |  |  | **x** |  |  |  |  |  |  |
| Ecclesine | Peter | Cisco Systems, Inc. | **x** | **x** |  | **x** | **x** | **x** |  |  |  |
| Fang | Yonggang | ZTE TX Inc |  | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| Harrington | Tim | Pro ID & UWB Alliance | **x** | **x** |  | **x** | **x** | **x** | **early** |  |  |
| Holcomb | Jay | Itron Inc. | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Jeffries | Tim | FutureWei |  | **x** | **x** |  | **x** | **x** |  |  |  |
| Jones | Vincent Knowles IV | Qualcomm Incorporated |  |  | **x** |  |  |  |  |  |  |
| Kain | Carl | Noblis, Inc. | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Kenney | John | Toyota ITC | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Kerry | Stuart | Ruckus/CommScope | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Lepp | James | BlackBerry |  |  |  | **x** |  |  | **x** |  |  |
| Lynch | Mike | MJLynch Assoc | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| Nikolich(lmsc) | Paul | Self and others |  | x | x | x |  | x | x |  |  |
| Rolfe | Ben | Blind Creek Assoc. & UWB All. | **x** | **x** |  |  |  |  |  |  |  |
| Sarris | Ioannis | u-blox |  |  |  |  |  |  | **x** |  |  |
| Stanley (lmsc) | Dorothy | HPE | **x** | **x** | **x** |  |  | **x** | **x** |  |  |
| Yaghoobi | Hassan | Intel Corporation | **x** | **x** | **x** | **x** | **x** |  |  |  |  |

**Non-Voters for this meeting:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** | **Attendance** |
| **21may** | **14may** | **07may** | **30apr** | **23apr** | **16apr** | **09apr** | **08apr** | **07apr** |
| Andersdotter | Amelia | Self | **x** | **x** | **x** |  |  |  |  | **x** | **x** |
| Au | Edward | Huawei | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| D’Ambrosia | John | FutureWei | **x** | **x** |  |  |  |  |  |  |  |
| Levy | Joseph | Interdigital |  | **x** | **x** | **x** | **x** | **x** |  | **x** | **x** |
| Rosdahl | Jon | Qualcomm | **x** |  |  |  |  |  |  |  |  |
| Roy | Dick | Self |  |  |  |  |  |  | **x** |  | **x** |
| Schiessl | Sebastian | u-blox | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Ward | Lisa | Rohde&Schwarz | **x** |  | **x** | **x** | **x** |  | **x** |  |  |
| Yucek | Tevfik | Qualcomm | **x** |  |  |  |  |  |  |  |  |

Chair calls the meeting to order at 15:02 ET.

1. Chair presents slides 2 – 6 of 802.18-20/0083r01, the call to order and administrative items
	1. Includes IEEE 802 meeting and participant’s guidelines and requirements.
2. Chair presents slides 7, of 802.18-20/0083r01, the agenda:
	1. Call to Order
	2. Administrative items
		1. Someone to take some notes:
	3. Approve agenda & last minutes
	4. Discussion items
		1. EU Items
		2. ITU-R Items
		3. ACMA 5-year spectrum outlook
		4. FCC FNPRM on 6 GHz
		5. FCC R&O 896/935 band
		6. General Discussion Items
	5. Actions required
		1. ACMA FYSO contribution text for comments
		2. FCC FNPRM on 6 GHz, anything for IEEE 802
		3. Anything new today
	6. AOB and Adjourn
3. Chair presents slide 8, Administrative – Motions and more
	1. **Motion:** To approve the agenda as presented on previous slide

Moved by: Stuart Kerry (Ruckus/CommScope)

Seconded by: Tim Harrington (UWB Alliance)

Discussion? None

Vote: Approved by unanimous consent

* 1. **Motion:** To approve the minutes from the IEEE 802.18 Teleconference 14 May 2020 in document <https://mentor.ieee.org/802.18/dcn/20/18-20-0081-00-0000-minutes-14may20-rrtag-teleconference.docx> 15-May-2020 10:39:36 ET, with editorial privilege for the 802.18 chair.

Moved by: Vijay Auluck (Self)

Seconded by: Stuart Kerry (Ruckus/CommScope)

Discussion? None

Vote: Approved by unanimous consent

1. Chair presents slides 9-10, **EU items to share**
	1. **CEPT – ECC** [<FM57>](https://cept.org/ecc/groups/ecc/wg-fm/fm-57/client/introduction/) **next meeting #10, 12-15May20, online only**
		1. Had to add another day to draft ECC Decision for WAS/RLAN in 6GHz.
		2. Completed a draft of Report B with:
		3. For LPI-indoor use only, to 200mW will start at 5945MHz with Stage 1 devices having Country Determination Capability (CDC). Some countries will require Stage 2 devices to interact with a database before operating, which will set frequency range allowed. Low end OOBE is yet to be set, -15/-36 dBm/MHz to be considered.
		4. For VLP handheld use only, to 25mW. OOBE at low end set to-30dB/MHz. Category A devices start at 6025 MHz w/o CDC. Category B devices have CDC and can start at 5945 MHz in countries that permit.
		5. What about 5925-5945MHz? OOBE starts at 5935 MHz, with a guard band from 5935-5945MHz
2. Chair presents slide1 11, **ITU-R items to share**
	1. nothing to share today
3. Chair present slides 12 and 13, **ACMA 5-year spectrum Outlook**
	1. <https://mentor.ieee.org/802.18/dcn/20/18-20-0079-00-0000-acma-5year-spectrum-outlook-fys-2020-24.docx>
	2. The closing date for submissions is COB, Wednesday 24 June 2020.
		1. **Need to have .18 approval by Thursday 11 June 2020**.
	3. The ACMA invites comments on the draft FYSO 2020-–24 and on the following specific questions:
		1. What are the expected impacts of the COVID-19 pandemic on the short- and medium-term capacity of your industry?
		2. Do you have any feedback on the ACMA’s approach to its spectrum work program in the current environment? Do you have alternative proposals or priorities?
		3. Are there other technology developments or sources of spectrum demand that the ACMA should be aware of in considering spectrum management over the next five years?
		4. Do you have any other feedback on the ACMA’s plans for monitoring, initial investigation, preliminary replanning or replanning of bands?
		5. Do you have any comments about the ACMA’s approach to forward allocations?
		6. Could look at Sharing, LIPDs (6 GHz), WRC-19 1.16 and 1.2. See APAC update 18-20/0082r01 for great review of these points to consider.

* + 1. No contributions to date and no feedback in call.
1. Chair presents slide 14, **FCC R&O and FNPRM 6GHz**
	1. CHAIRMAN PAI PROPOSES NEW RULES FOR THE 6 GHz BAND, UNLEASHING 1,200 MEGAHERTZ FOR UNLICENSED USE News Release: [Docx](https://urldefense.proofpoint.com/v2/url?u=https-3A__docs.fcc.gov_public_attachments_DOC-2D363451A1.docx&d=DwMFAg&c=pqcuzKEN_84c78MOSc5_fw&r=z8R-nWJ8GIxwjOjNKhEFByb-tZ6XE3GZXWSggNdVo-w&m=qkYmo1P6XmH1YvH1UkP-tyoCfcURwF2UYPYmrj-ahdc&s=C2AkcvEPrUX932nUH8F7u7RFWhncPxXDubaY_WcjOgY&e=)
		1. If adopted, the draft Report and Order would authorize two different types of unlicensed operations: standard-power in 850-megahertz of the band and indoor low-power operations over the full 1,200-megahertz available in the 6 GHz band. An automated frequency coordination system would prevent standard power access points from operating where they could cause interference to incumbent services.
		2. Preceding:
		3. <https://www.fcc.gov/ecfs/search/filings?proceedings_name=18-295&sort=date_disseminated,DESC>
		4. FNPRM as approved on 24 Apr 20 is on Mentor:
		5. <https://mentor.ieee.org/802.18/dcn/20/18-20-0062-01-0000-fcc-r-o-fnprm-promoting-unlicensed-use-of-the-6ghz-band-et-18-295.docx>
		6. Anything for IEEE 802 as a whole to consider? \_\_\_\_\_\_\_\_\_
		7. Nothing brought up today
2. Chair presents slide 15, **FCC R&O 896-901/935-940MHz**
	1. To realign the 900 MHz band to make available six of the band’s ten megahertz for the deployment of broadband services and technologies to meet the ever-increasing spectrum capacity demands of a wide range of industries, including utilities and railroads, and other private land mobile radio services.
	2. Proceeding 17-200: [**https://www.fcc.gov/ecfs/search/filings?proceedings\_name=17-200&sort=date\_disseminated,DESC**](https://www.fcc.gov/ecfs/search/filings?proceedings_name=17-200&sort=date_disseminated,DESC)
	3. R&O on mentor: <https://mentor.ieee.org/802.18/dcn/20/18-20-0085-00-0000-fcc-r-o-896-901-935-940-mhz-band-wtb-17-200-fcc-20-67a1.docx>
	4. 802.18 reviewed this when the NPRM came out looking at current users in this adjacent to the unlicensed band, and no one had concerns or inputs. IEEE 802 did not file comments.
	5. **From NPRM 802.18 discussions last year: Compare power levels from today’s rules.**
	6. NPRM: We propose to permit an effective radiated power for base and repeater stations in the broadband segment not to exceed 400 watts/megahertz in non-rural areas and 800 watts/megahertz in rural areas, with the maximum permissible power decreasing as the HAAT rises above 304 meters.
		1. R&O ¶ 145 accepted the NPRM levels; with justification could do a little more.
	7. Found in today’s rules: §90.635   Limitations on power and antenna height.
	8. The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table.
		1. OOBE should be looked out further to understand if different from before and in general.
3. Chair presents slide 16, General discussion items
	1. **Brazil released Resolution No. 726.**
		1. Amends the Regulation on Restricted Radiation Radiocommunication Equipment.
		2. Anatel: <https://sei.anatel.gov.br/sei/publicacoes/controlador_publicacoes.php?acao=publicacao_visualizar&id_documento=6244765&id_orgao_publicacao=0>
		3. Mentor with resolution 680: <https://mentor.ieee.org/802.18/dcn/20/18-20-0086-00-0000-sei-anatel-5511563-resolution-726-and-680.docx>
		4. Resolution 726 will update the current Radio Frequency bands with usage restrictions. Some frequency bands that will be open are: 5.850 – 5.925 GHz (802.11p), 57-71 GHz (802.11ad) and 76-81 GHz (radar systems), providing they meet the technical compliance requirements within the Regulation.
	2. Also the resolution erased usage restrictions on 6,650-6,675.2 <- radio astronomy band, thus leaving 5460-8405 MHz free for other activity
	3. Art. 4 This Resolution comes into force on September 1, 2020 and should see more technical details before then.
4. Chair presents slide 17, Actions required
	* **ACMA contribution text for comments from IEEE 802.**
	* **Review 6 GHz FNPRM, if anything for IEEE 802 as a whole to consider?**
* **Start to consider what are IEEE 802 viewpoints are for WRC-23 agenda items.**
	1. Ongoing:
		1. WPT use of license-exempt bands and UWB in cell phones
		2. Digital Divide, how can we help?
1. Chair presents slide18 Any Other Business
	1. none heard
2. Chair presents slide 19, Adjourn
	1. **Next weekly teleconference (scheduled to 03sep): 28May20–*15:00–<15:55* ET**
		1. Call in info: <https://mentor.ieee.org/802.18/dcn/16/18-16-0038-15-0000-teleconference-call-in-info.pptx> (*or latest) (new – starting 14 May 20)*
			1. Or back up slide in this agenda.
		2. All late changes/cancellations will be sent out to the 802.18 list server.
		3. Now on the IEEE Webex teleconference calendar: <http://ieee802.org/802tele_calendar.html>
		4. And Overall schedule, works in progress: <http://ieee802.org/16/cal-temp.html>
	2. Adjourn:
		1. Any objection to Adjourn.
		2. None heard, Adjourn at 15:41et
	3. **The next face to face meeting is tbd. Note, Montreal in July is cancelled.**
	4. **Thank You**