

Project: IEEE P802.15 Working Group for Wireless Specialty Networks (WSN)

Submission Title: Interim Call Slides Jan2025 – Mar2025

Date Submitted: 25 March 2025

Source: Benjamin A. Rolfe (Blind Creek Associates)

Contact:

Voice: [deprecated],

E-Mail: ben.rolfe @ ieee.org

Re: **Task Group 4ab: 802.15.4 UWB Next Generation**

Abstract: Meeting Slides for the interim Webex **March 2025 through May 2025**

Purpose: Continue project progress and continue the illusion of organization

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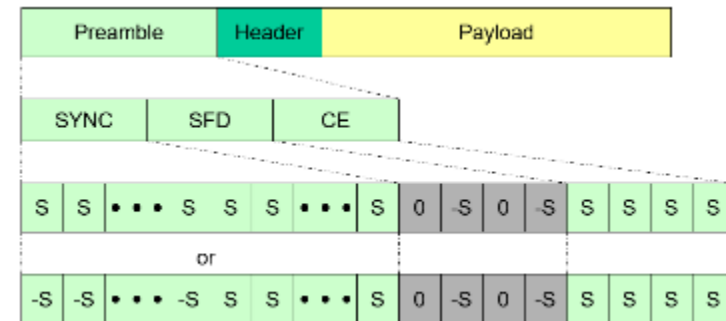


Task Group 15.4ab Next Generation UWB Amendment

Meeting Slides for the Interim meeting
March 7th, 2025
through
May 6th 2025

Meeting Preamble

- Stuff you need to know before we get to the meeting content



Task Group Rules

- Discussion: Everyone present is welcome*
- Straw polls: Everyone present may vote
- Formal motions: WG voters
- To make, second and vote
- Patent policy for PAR activities applies
- All the usual rules of conduct

Please identify yourself on first contact with name and affiliation

*at the discretion of the WG and TG chairs

IEEE-SA Patent, Copyright, and Participation Policies

See: <https://grouper.ieee.org/groups/802/sapolicies.shtml>

IEEE-SA Patent Slides for Standards Development Meetings (.pdf)

<https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf>

IEEE-SA Standards Board Patent Committee (PatCom) home page

<https://standards.ieee.org/content/ieee-standards/en/about/sasb/patcom/index.html>

IEEE-SA Participation Policy meeting slide set - individual method (.pdf)

<https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/Participant-Behavior-Individual-Method.pdf>

Working Group Copyright Materials

<https://standards.ieee.org/ipr/copyright-materials.html>

<https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/ieee-sa-copyright-policy-2019.pdf>

Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

Ways to inform IEEE

- **Cause an LOA to be submitted to the IEEE SA (patcom@ieee.org); or**
- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

IEEE 802 Ground Rules

Respect ... give it, get it

NO product pitches

NO corporate pitches

NO prices

NO restrictive notices – (no confidentially notices in email)

Presentations must be openly available

Detailed Agenda



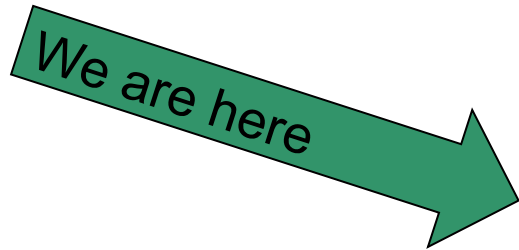
<https://mentor.ieee.org/802.15/dcn/25/15-25-0171-00-04ab-tg4ab-interim-call-details-agenda.xlsx>

5.2.b Scope of the project (As approved):

- This amendment enhances the Ultra Wideband (UWB) physical layers (PHYs) medium access control (MAC), and associated ranging techniques while retaining backward compatibility with enhanced ranging capable devices (ERDEVs).
Areas of enhancement include:
 - additional coding, additional coding, preamble and modulation schemes to support improved link budget and/or reduced air-time relative to IEEE Std 802.15.4 UWB;
 - additional channels and operating frequencies;
 - interference mitigation techniques to support greater device density and higher traffic use cases relative to the IEEE Std 802.15.4 UWB;
 - improvements to accuracy, precision and reliability and interoperability for high-integrity ranging; schemes to reduce complexity and power consumption;
 - definitions for tightly coupled hybrid operation with narrowband signaling to assist UWB;
 - enhanced native discovery and connection setup mechanisms;
 - sensing capabilities to support presence detection and environment mapping;
 - and mechanisms supporting low-power low-latency streaming as well as high data-rate streaming allowing at least 50 Mb/s of throughput.
- Support for peer-to-peer, peer-to-multi-peer, and station-to-infrastructure protocols are in scope, as are infrastructure synchronization mechanisms. This amendment includes safeguards so that the high throughput data use cases do not cause significant disruption to low duty-cycle ranging use cases.

<https://development.standards.ieee.org/myproject-web/app#viewpar/9081>

Near Term Working Milestones



	Current Schedule
First letter ballot	June 2024
Initial LB comment resolution	Start: July 2024
First recirculation	March 2025
Recirculation comment resolution	April-May 2025
Second recirculation	May-June 2025
Recirculation comment resolution	July-Sept 2025
First SA-Ballot	November 2025
SA-Ballot comment resolution	December 2025 to

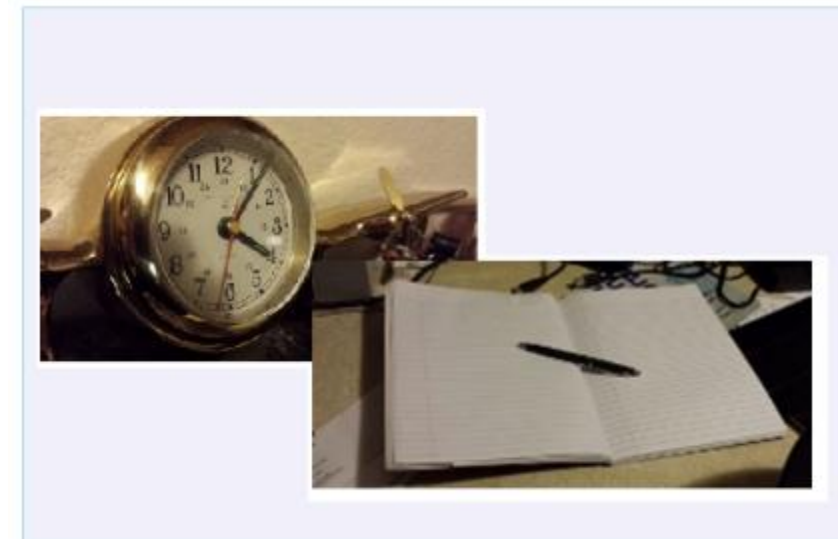
SA Ballot and Beyond



	Current Schedule
First SA-Ballot	November 2025
SA-Ballot comment resolution	January 2026
First recirculation	April 2026
Recirculation comment resolution	May 20256
Second recirculation	July 2026
Recirculation comment resolution	August 2026
Third recirculation	November 2026
Final comment resolution	January 2027
LMSC approval	March 2027
REVCOM and SASB	June 2027



Editor's Corner



Operation of Task Group (WG15 Operations Manual)

- For amendments and revisions to IEEE 802.15 standards it is expected that the task group thoroughly read and understand the whole standard being modified. Specifically, the task group's draft document shall maintain the standard's structure and conventions, adhere to the PAR and CSD, that effort be made to reuse or leverage existing behavior whenever possible, that changes do not "break" existing behaviors, and that backward compatibility is achieved.

Comment resolution



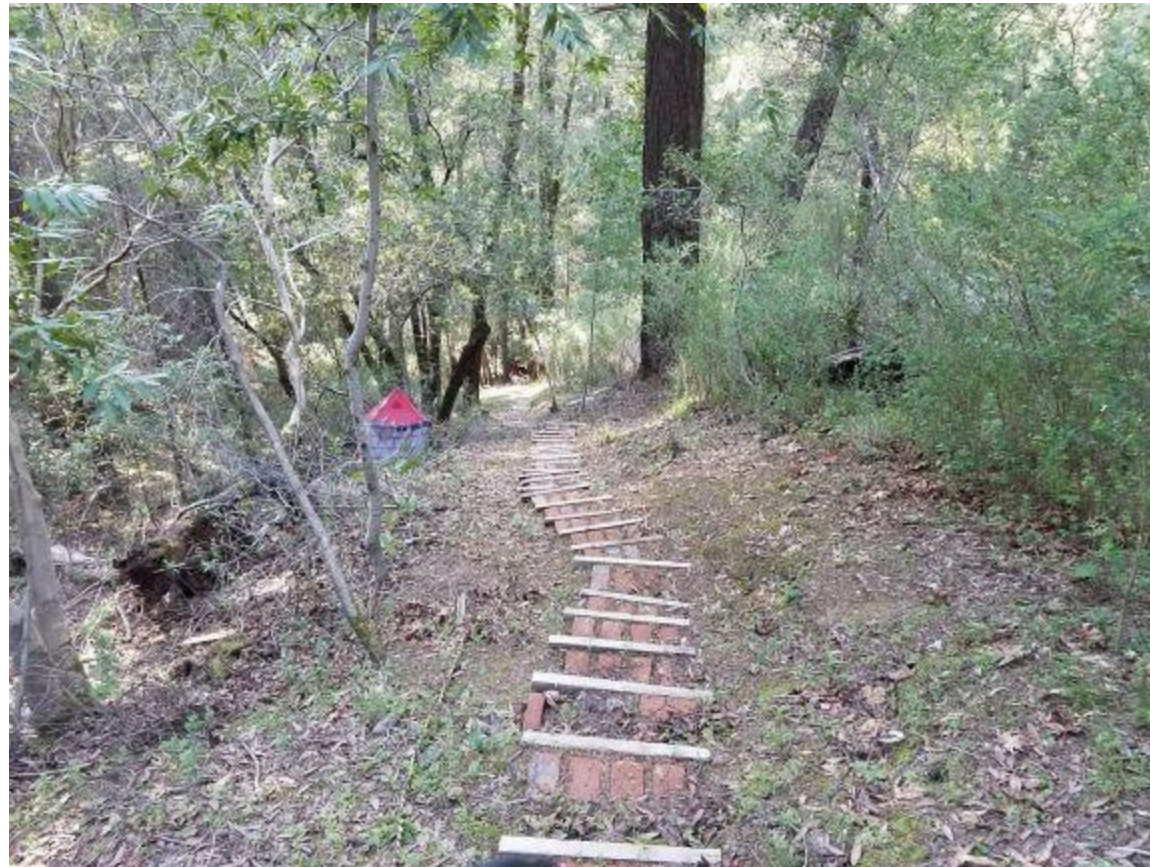
A vertical stack of five rectangular boxes, each containing text. From top to bottom: a grey box with 'SUB-LIGHT SPEED', a green box with 'LIGHT SPEED', an orange box with 'RIDICULOUS SPEED', a red box with 'LUDICROUS SPEED', and a red plaid box with 'PLAID'. The boxes are separated by thin black lines and are set against a black background.

Consolidated Comments Recirc 1

TBC

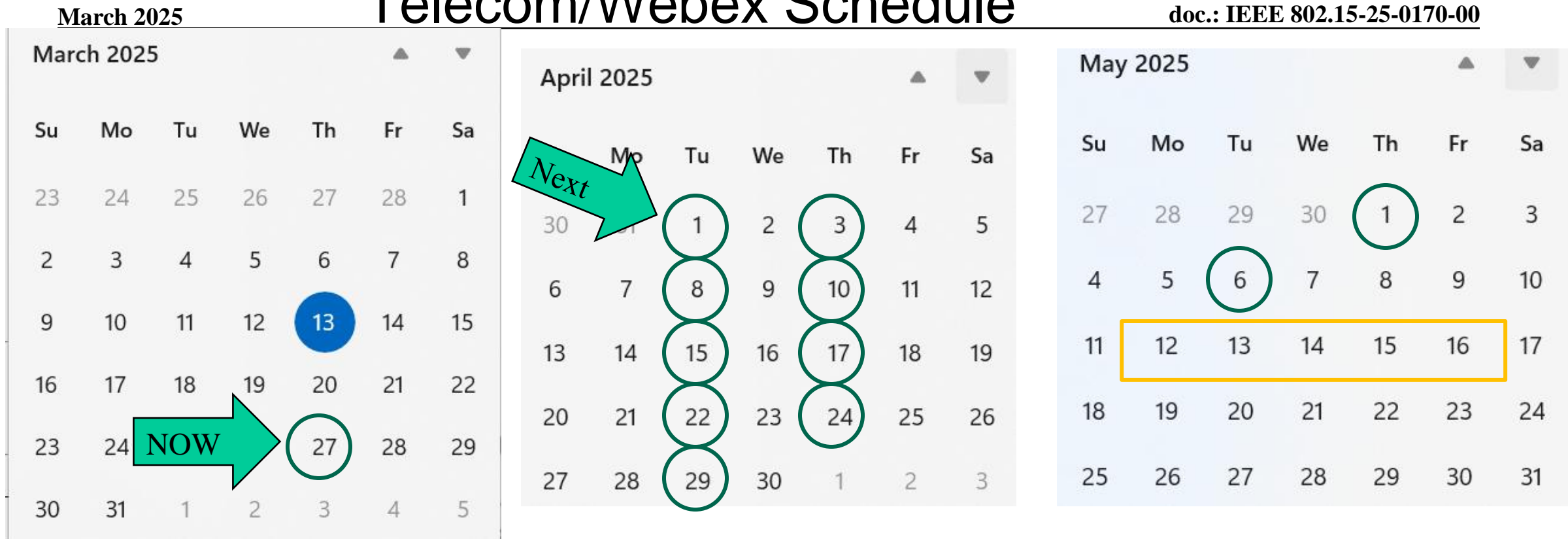
Any Other Business

Next Steps



Telecom/Webex Schedule

doc.: IEEE 802.15-25-0170-00



- Interim session starts 12-May
- First call 25-March on when the ballot closes
 - Twice weekly, 1 hour each,
 - Tuesday 06:00 and Thursday 14:00

Any Other Business

Recess



March 2025 – May 2025

Task Group 15.4ab Next Generation UWB Amendment

Resume from Recess

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Adjourned

