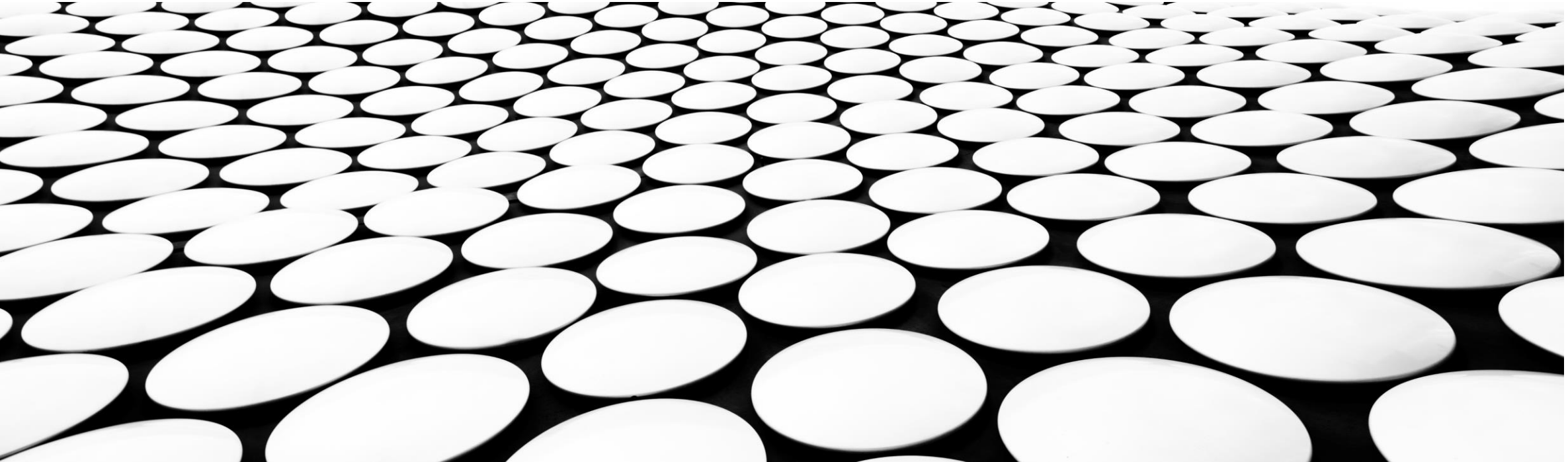

NTPCUG ONLINE SIG

FEBRUARY 2022





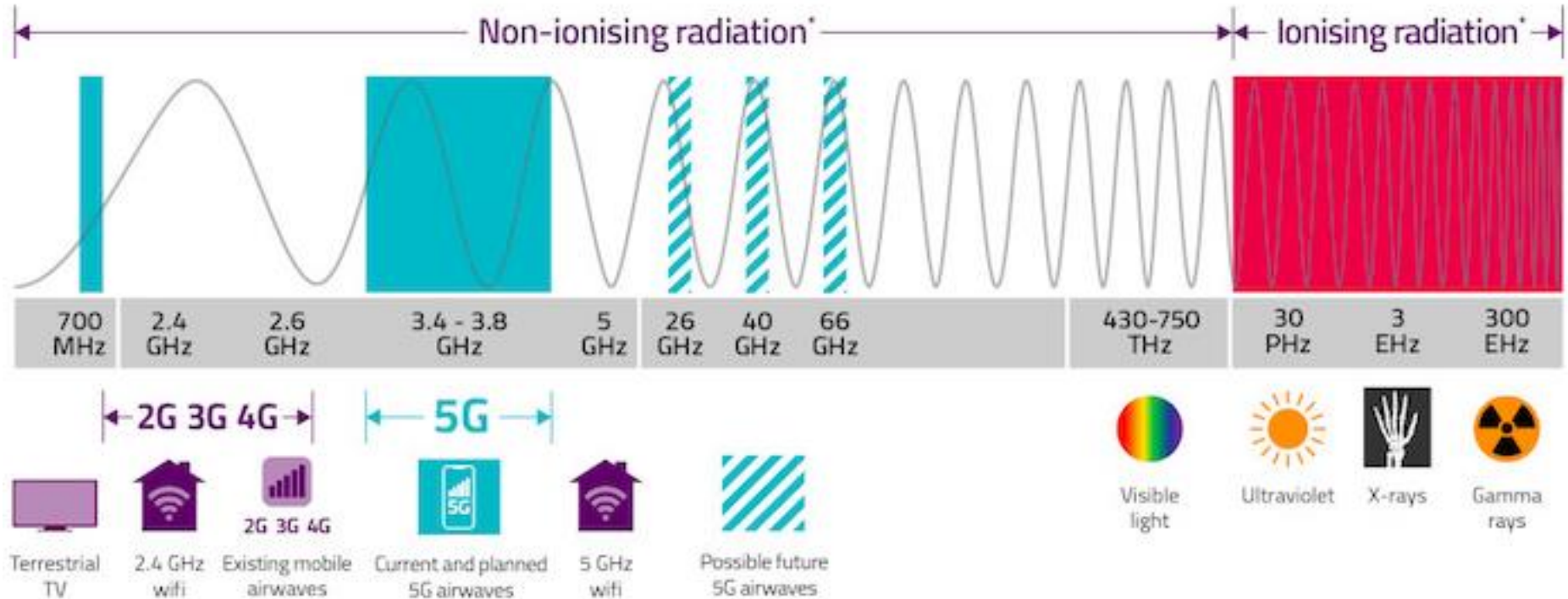
TODAY'S TOPICS

- Current state of 5G, nationally and locally
- Windows 11: adoption rate, known issues
- 3 ways Microsoft will distribute Windows 11 updates
- Windows 11 changes coming in February

5G TERMINOLOGY

- Low-band 5G - 600 MHz, 800 MHz, and 900 MHz
 - Slower than mmWave, not that much different from 4G, same frequency range
- Mid-band 5G (sometimes called “C-band 5G”) - 2.5 GHz, 3.5 GHz, and 3.7–4.2 GHz
 - Frequency spectrum that AT&T and Verizon paid \$70M for 2 years ago, and that T-Mobile already uses for 5G
- mmWave (millimeter Wave) 28 GHz, 24 GHz, 37 GHz, 39 GHz, and 47 GHz
 - Ultra high speeds, but range is limited to a radius of several blocks, not miles

ELECTROMAGNETIC FREQUENCY SPECTRUM





3G SERVICE ENDING IN 2022

- [Plan Ahead for Phase Out of 3G Cellular Networks and Service](#) (FCC)
- [Mobile Phone Companies to End 3G Service in 2022, Starting Feb. 22](#) (AARP)

LOCAL 5G AVAILABILITY



- If you're an AT&T customer in the DFW area, your phone screen carrier logo shows "5G+" to indicate either mmWave or mid-band 5G, "5G" indicates low band
- If you're a Verizon customer, your phone screen indicates either mmWave or mid-band "5G UW"
- If you're a T-Mobile customer, your phone screen just shows "5G", but the connection is mid-band 5G
- iPhone 12 and 13 are good to go on either carrier
- Samsung's Galaxy S21 phones and the new foldables: the Galaxy Z Flip3 and Galaxy Z Fold3
- Google's new Pixel 6 and Pixel 6 Pro phones also technically support ultra wideband 5G, but have not been fully approved.



WINDOWS 11 NEWS

- [Windows 11 is on 16% of all PCs](#) (Ghacks)
- [Here's how Windows 11 will get new features](#) (ZDNet)
- [Windows 11 users will get new features in February](#) (ZDNet)
- [Windows 11 known issues and notifications](#) (Microsoft)

ADDITIONAL RESOURCES

- [Guide to the state of 5G in early 2022](#) (WaPo)
- [What is 5G Fixed Wireless Access \(FWA\)?](#) (metaswitch)
- [Verizon CEO sees FWA as 'the next generation of broadband'](#) (Fierce Telecom)
- [America's 5G Future](#) (FCC)
- [Plan Ahead for Phase Out of 3G Cellular Networks and Service](#) (FCC)
 - [AT&T](#) will shut down its 3G network by February 2022
 - [Verizon](#) will shut down its 3G network by December 31, 2022
 - [T-Mobile](#) will shut down Sprint's 3G CDMA network by March 31, 2022 and Sprint's 4G LTE network by June 30, 2022. It also announced it will shut down T-Mobile's 3G UMTS network by July 1, 2022, but has not yet announced a shutdown date for its 2G network.