

# 5G Spectrum in mmW Bands



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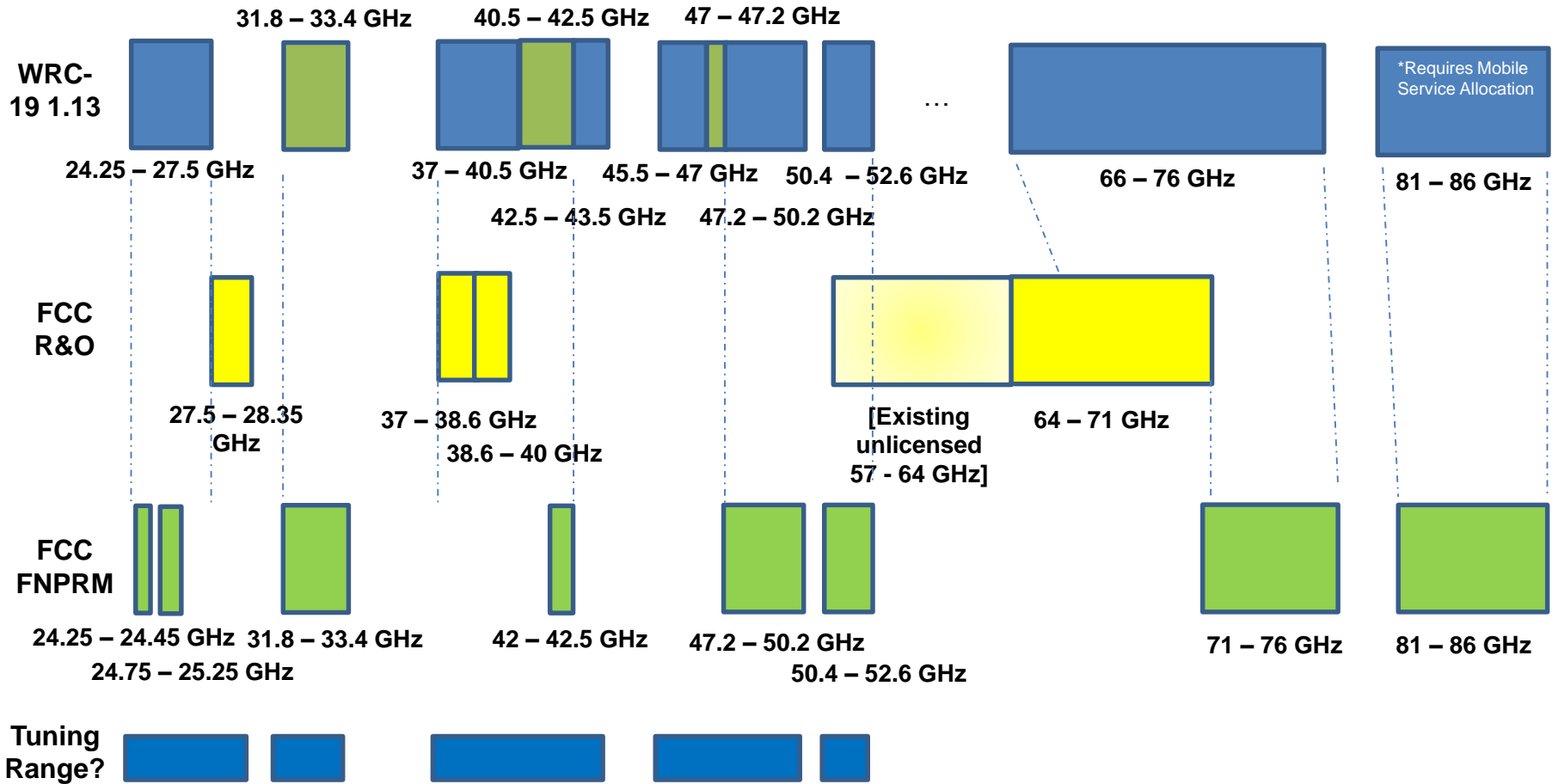
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Note: The views expressed in this presentation are those of the author and may not necessarily represent the views of the Federal Communications Commission

# Overview of New Bands

	28 GHz	37 GHz	39 GHz	64-71 GHz
<i>Frequency</i>	27.5-28.35 GHz	37-38.6 GHz	38.6-40 GHz	64-71 GHz
<i>Bandwidth</i>	850 MHz	1600 MHz	1400 MHz	7000 MHz
<i>Terrestrial Allocation</i>	Licensed for fixed operations, with about 75% of the population covered by existing licenses; remaining licenses in inventory	Yes (no current use)	Licensed for fixed operations, with about 50% of the population covered by existing licenses; the remaining licenses are in inventory.	Yes (no current use)
<i>Federal Allocation</i>	No	Radio Astronomy / Space Research in 37-38 GHz @ 3 sites;  Federal Fixed/Mobile in 37-38.6 GHz @ 14 locations	Fixed Satellite Service / Mobile Satellite Service in 39.5-40 (military use only)	Earth Exploration Satellite  Fixed/Mobile/Satellite
<i>Satellite Allocation</i>	Yes	Yes (no current use)	Yes (no current use)	Yes (no current use)
<i>Licensing Scheme</i>	Licensed	Licensed	Licensed	Unlicensed

# Possible International Harmonization



# Next Steps

- ❑ Mobile service in mmW band has strong support
  - ❑ Suppliers have developed equipment
  - ❑ Carriers are conducting tests & planning trials
  
- ❑ Follow up on Further NPRM
  - ❑ Comments/Reply Comments have been received
  
- ❑ Petition for Reconsideration
  - ❑ R&O has been published in the Federal Register
  - ❑ Recon petitions are due on December 14<sup>th</sup>, 2016
  
- ❑ Research by government and industry is ongoing:
  - ❑ Executive Branch launched a \$400 million Advanced Wireless Research Initiative led by the National Science Foundation (NSF)
  - ❑ Will enable the deployment and use of four city-scale testing platforms for advanced wireless research over the next decade and builds upon FCC action on *Spectrum Frontiers*
  - ❑ For details see <https://nsf.gov/cise/advancedwireless/>

Questions?