

March 10th, 2019

Beijing

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U.S. 3.7-4.2 GHz Spectrum Update

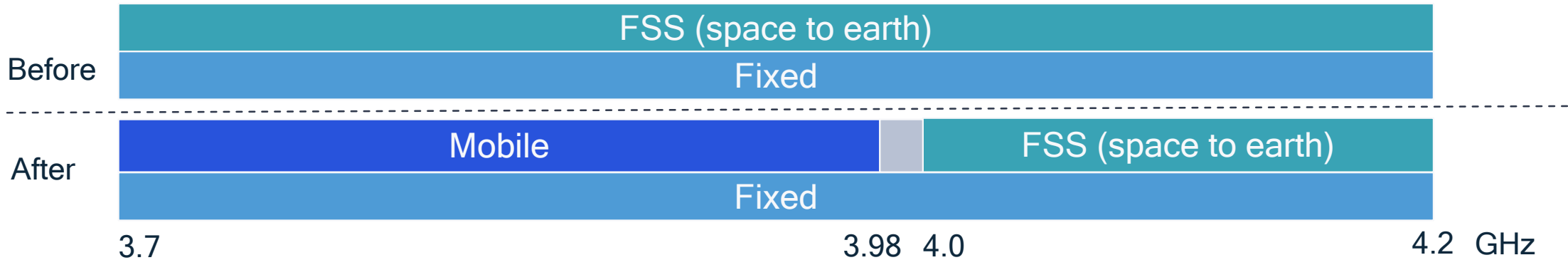
-Public Auction of 280 MHz (3.7-3.98GHz) of C-Band Spectrum for Flexible Use

Lu Gao

FuTURE WG3 (Spectrum) 2020 #1 meeting

Highlight of U.S 3.7-4.2 GHz Report and Order

- Public Auction of 280 MHz (3.7-3.98GHz) of C-Band Spectrum for Flexible Use



- The Transition of FSS Operations**

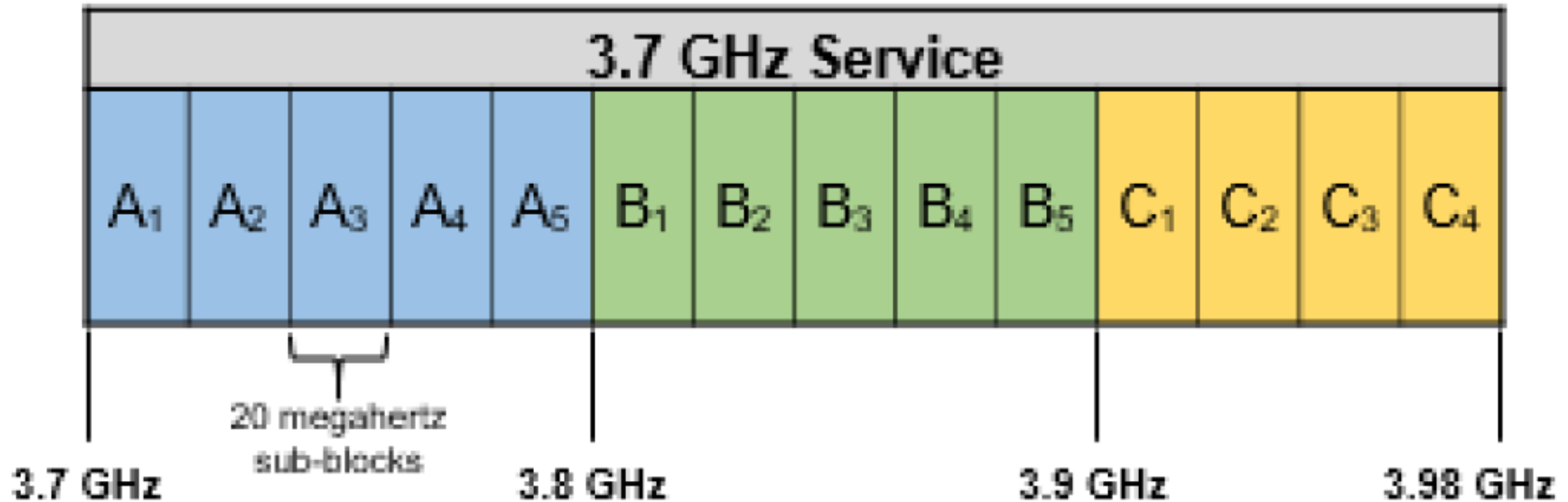
- Will fully reimburse existing operators for the costs of this relocation and offer accelerated relocation payments to encourage a speedy transition
- A deadline for clearing the entire band by 2025, while offering incumbent space station operators the option to receive payments to accelerate the clearing process to 2021 for the lower 120 megahertz in 46 of the top 50 regions and 2023 for the upper 180 megahertz across the entire US (& the lower 120 MHz where it wasn't cleared in 2021).

- Sunset incumbent P2P fixed service**

- Sunset the primary operations of the incumbent point-to-point Fixed Service in the 3.7-4.2 GHz band in the contiguous United States as of December 5, 2023. Self-relocate their point-to-point links out of the 3.7-4.2 GHz band by 2023. There are a small number of these links using the band today.

- Technical Rules for the 3.7-4.2 GHz Band Use in the C-Band**

Band Plan



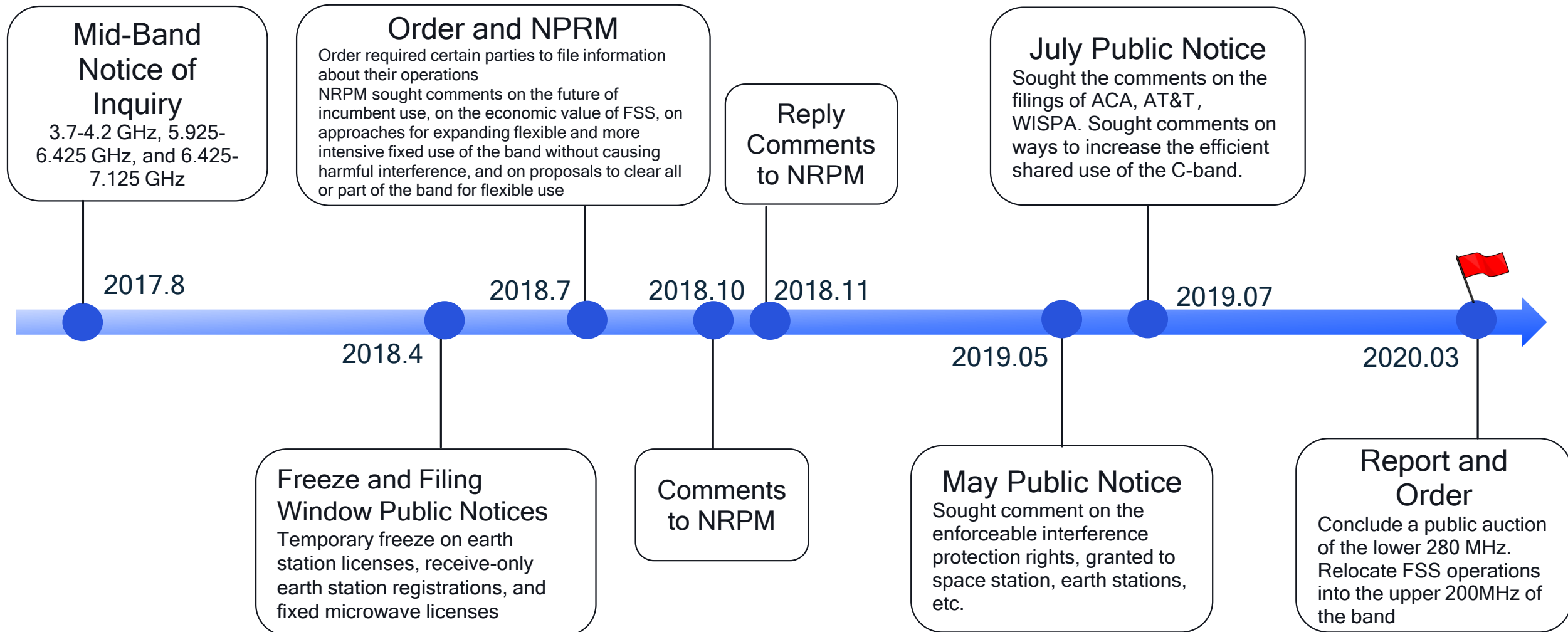
FCC will designate the lower 280 MHz of C-band spectrum in 100 MHz increments as the A and B Blocks and in an 80 MHz increment as C Block. FCC will issue licenses in the A, B, and C Blocks in 20 megahertz “sub-blocks.” So, the FCC is creating 20 MHz channels, & operators will be able to aggregate those channels.

FCC agreed and concluded that a 15-year license term for the A, B, and C Blocks best serves the public interest by providing the time needed for significant investment that ultimately will usher in valuable services to consumers.

Technical Rules for the 3.7-4.2 GHz Band Use





| Technical Rules (Part) | Value |
|--|---|
| Power level | BS: <ul style="list-style-type: none">• 1640 watts per MHz EIRP in non-rural area• 3280 watts per MHz EIRP in rural area UE: <ul style="list-style-type: none">• 1 Watt (30 dBm) EIRP power limit |
| Out-of-band Emissions | -13 dBm/MHz (conducted power level) |
| Antenna Height Limits | No restriction |
| Service Area Boundary Limit | -76 dBm/m ² /MHz power flux density (PFD) limit at a height of 1.5 meters above ground at the border of the licensees' service area boundaries |
| Protection of Incumbent FSS Earth Stations | PFD limit of -124 dBW/m ² /MHz as measured at the earth station antenna in 4.0-4.2 GHz PFD limit of -16 dBW/m ² /MHz applied across the 3.7-3.98 GHz band at the earth station antenna as a means to prevent receiver blocking |

Procedural History





Thank you

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