



**The Internet & Television Association**  
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June 6, 2018

**Ex Parte**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz,  
GN Docket No. 17-183; Expanding Flexible Use of the 3.7 GHz to 4.2 GHz  
Band, GN Docket No. 18-122***

Dear Ms. Dortch:

On June 4, 2018, Anne Lucey of CBS Corporation, Colleen King of Charter Communications, Inc., Brian Josef of Comcast Corporation, Matthew DelNero of Covington & Burling LLP (counsel to the Content Companies), Barry Ohlson of Cox Enterprises, Inc., Catherine Carroll of Discovery, Inc., Jared Sher of 21st Century Fox, Inc., Kara Azocar of General Communication, Inc., Victoria Jeffries of Univision Communications, Inc., and Jacqueline Clary and myself of NCTA – The Internet and Television Association (NCTA) met with Donald Stockdale, Dana Shaffer, and Becky Schwartz of the Wireless Telecommunications Bureau, Tom Sullivan of the International Bureau, and Julius Knapp of the Office of Engineering and Technology, regarding the above-referenced proceedings. The following individuals participated by telephone: Bob Seidel (CBS Corporation), Susan Fox (The Walt Disney Company), Winston Caldwell (21st Century Fox, Inc.), and Pierre Jaspar (Univision Communications, Inc.).

During the meeting, NCTA and its member companies described the industry's use of C-band spectrum in cable television distribution systems, focusing on the 3.7-4.2 GHz downlink spectrum, as set forth in the attached presentation, and noting other uses such as delivering broadband and telephone services in remote locations. Specifically, we noted that cable operators receive a significant amount of the programming they deliver to 51.9 million cable video customers using the 3.7-4.2 GHz band, via thousands of receive-only antennas, many of which are unregistered today. We also highlighted that content companies rely on C-band to ensure reliable programming distribution – including breaking news and live sporting and entertainment events – to more than 100 million American TV households, via thousands of MVPD head ends, more than 1,000 broadcast affiliate stations, and over-the-top video distributors.

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We responded to proposals to enable expanded terrestrial wireless use of the band, emphasizing our assessment that neither fiber nor Ku-band spectrum would be an adequate, complete substitute for today's C-band operations, nor would such substitution be feasible in many use cases. We raised questions about the costs and technical issues associated with repacking the band, including earth station filtering and associated expenses. We also stated that the Commission should avoid prematurely endorsing any particular proposal until it develops a comprehensive record demonstrating how the band's existing services will be protected and incumbent users made whole.

Please address any questions regarding the foregoing to the undersigned.

Sincerely,

**/s/ Danielle J. Piñeres**

Danielle J. Piñeres

Encl.

cc: Julius Knapp  
Becky Schwartz  
Dana Shaffer  
Donald Stockdale  
Tom Sullivan



# 3.7-4.2 GHz

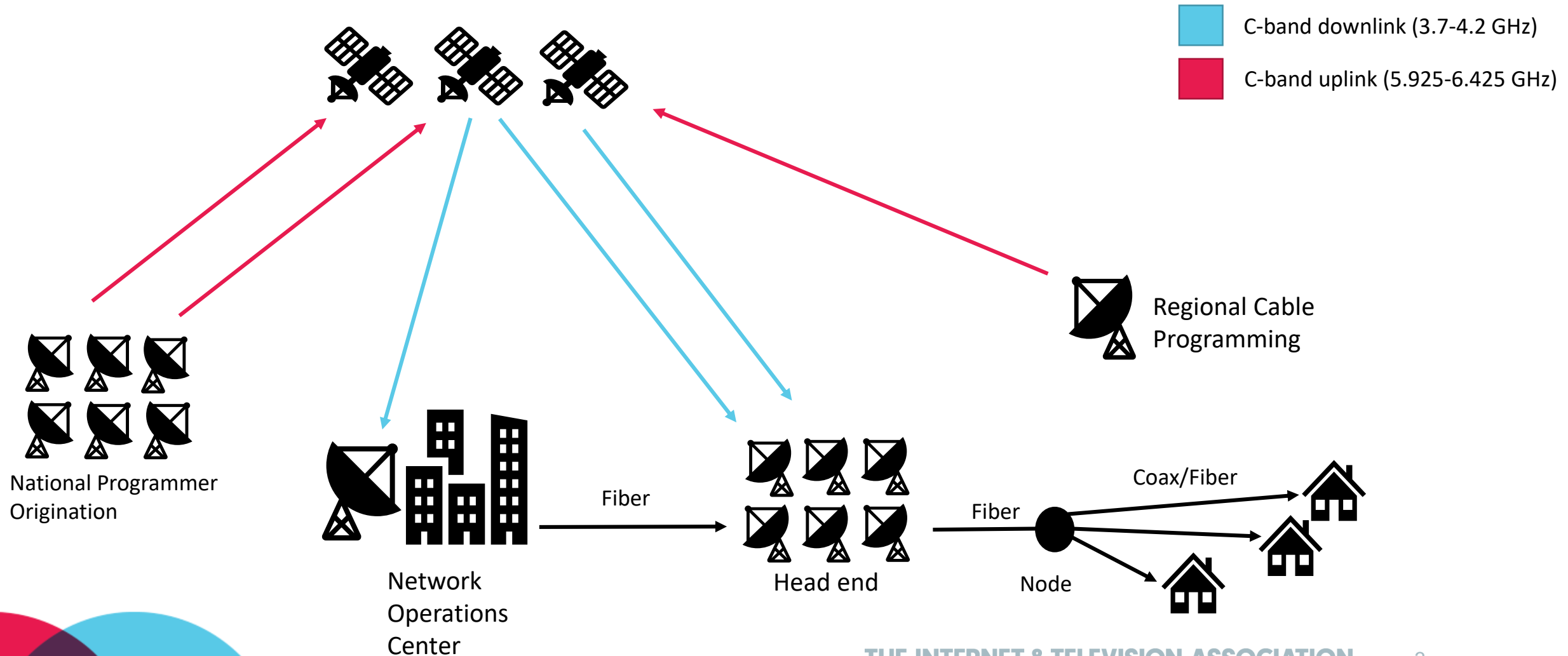
**June 2018**



# U.S. VIDEO DISTRIBUTION RELIES ON C-BAND

- Content Companies rely on C-band to ensure reliable programming distribution to more than 100 million American TV households
  - Programmers deliver content to thousands of MVPD headends, more than 1,000 broadcast affiliate stations, and over the top video distributors
  - C-band is also crucial for delivering breaking news, sports, and live programming
- Cable operators receive a significant amount of the programming they deliver to 51.9 million cable video customers using the 3.7-4.2 GHz band
  - Operators continue to use thousands of C-band earth station antennas to receive programming, a significant number of which are not registered
  - NCTA is encouraging members to register their unregistered stations by the July 18, 2018 deadline

# CABLE VIDEO DISTRIBUTION



# MOBILE USE PROPOSALS LACK DETAIL

- Stakeholder proposals to date for enabling mobile use lack sufficient detail
- Band split/repack:
  - How much spectrum will remain available to accommodate critical C-band services?
    - Transitioning to fiber or other spectrum presents many challenges:
      - Fiber: (1) not commercially viable for remote, hard-to-reach locations; (2) not as reliable as C-band for content delivery
      - Alternative spectrum bands: (1) Ku-band spectrum is more susceptible to rain fade and therefore less reliable; (2) demand for Ku transponders may already exceed supply
  - Even if sufficient spectrum remains to accommodate our services, how will affected customers and earth station operators be made whole?
- Co-channel sharing:
  - Stakeholder comments suggest very large (30-75 km) exclusion zones around earth stations would be necessary
  - Not clear how such exclusion zones would be enforced

# FCC SHOULD ADOPT NEUTRAL NPRM

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- As the Commission explores ways to enable flexible wireless use of C-band spectrum, it must ensure that new operations will fully protect existing operations
- If the Commission moves forward with an NPRM on the 3.7-4.2 GHz band, it should seek further comment on various proposals, but should not tentatively endorse a single approach