

August 16, 2013

By Electronic Filing

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

Re: *Ex Parte Communication, GN Docket No. 12-268, In the Matter of
Expanding the Economic and Innovation Opportunities of Spectrum
Through Incentive Auctions*

Dear Ms. Dortch,

This letter is submitted to notify you that on August 15, 2013, representatives of the WMTS Coalition met with FCC representatives to discuss the impact on Wireless Medical Telemetry Service (“WMTS”) licensees’ use of the 608-614 MHz band that could result from various proposals for the Incentive Auction currently being addressed in the above referenced proceeding. The discussion addressed the points addressed in the attached presentation.

Representing the WMTS Coalition were Dale Woodin, Executive Director of the American Society for Healthcare Engineering of the American Hospital Association (“ASHE”); Mark Gibson and Laura Fontaine from ASHE’s technical consultant, Comsearch; and ASHE’s undersigned counsel. FCC staff members attending the meeting were Gary Epstein, Senior Advisor and Chair of the Incentive Auctions Task Force; Edward Smith, Incentive Auctions Task Force; Ira Keltz, Deputy Chief, Office of Engineering and Technology; Chris Helzer, Electronics Engineer, Broadband Division, Wireless Telecommunications Bureau; Jessica Almond, Chief of Staff, Wireless Telecommunications Bureau; Sasha Javid, Wireless Telecommunications Bureau; Jeff Tobias, Attorney Advisor, Wireless Telecommunications Bureau; Renee Wentzel Gregory (via telephone), Chief of Staff, Office of Engineering and Technology; Jamison Prime, Chief, Spectrum Policy Division, Office of Engineering and Technology; and Aspasia Paroutsas, Office of Engineering and Technology.

WILKINSON) BARKER) KNAUER) LLP

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Please contact the undersigned if you have any questions.

Sincerely,

/s/

Lawrence J. Movshin

Timothy J. Cooney

Attachment

cc: Gary Epstein
Ira Keltz
Jamison Prime
Edward Smith
Chris Helzer
Jeff Tobias
Jessica Almond
Sasha Javid
Aspasia Paroutsas
Renee Wentzel Gregory

WMTS Coalition Meeting

August 15, 2013



Introductions

- Dale Woodin, Executive Director
American Society For Healthcare Engineering
- Mark Gibson and Laura Fontaine
Comsearch
- Lawrence Movshin and Timothy Cooney
Wilkinson Barker Knauer, LLP

Meeting Goals

- Update the Incentive Auction Task Force on WMTS registrations and review recently filed information about relocation costs.
- Discuss critical issues involving protection of incumbent WMTS licensees using Channel 37 from interference to critical care and other patient care functionality:
 - From adjacent channel “downlink” transmitters operated by wireless carriers;
 - From adjacent channel TV broadcast transmitters
 - From adjacent channel unlicensed devices
 - From co-channel unlicensed devices
- Promote band plan that best protects WMTS licensees from harmful interference while also promoting goals of other interested parties (FCC, broadcasters, wireless carriers, unlicensed proponents)

WMTS Relocation Cost Estimates

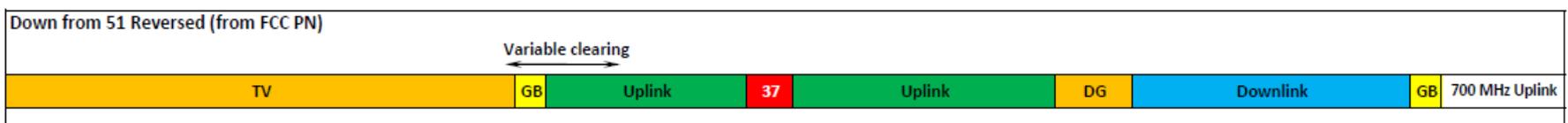
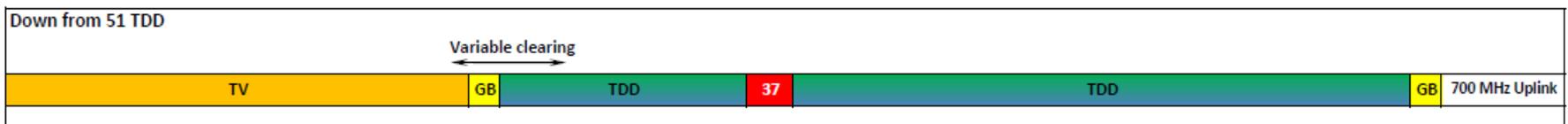
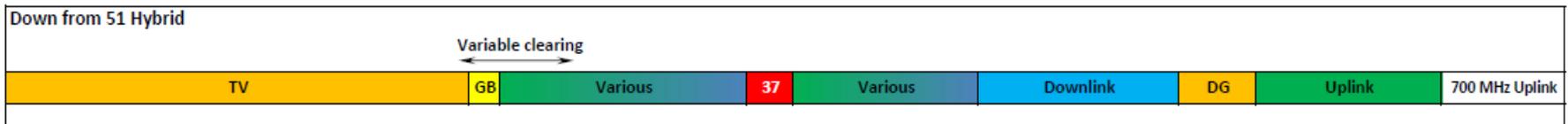
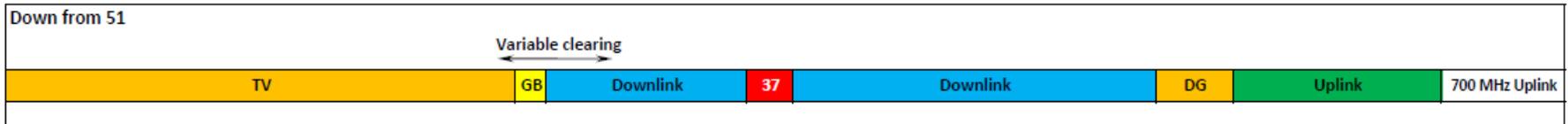
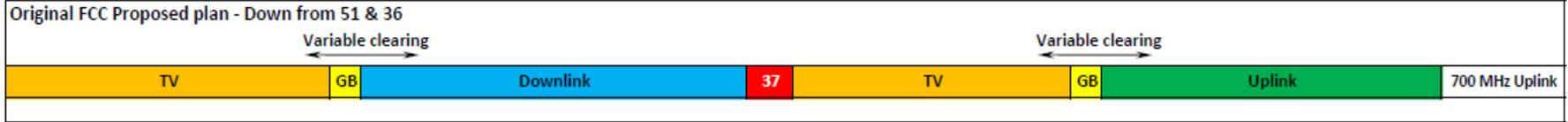
- The estimates for a replacement system (based on WMTS systems operating today in Channel 37) averaged \$9,498 per transmitter, totaling over \$2 Billion for the 212,000+ installed transmitters identified by manufacturers.
- These estimates assumed replacement of the radio equipment (transmitters, transceivers) and spares, as well as costs for project management, site surveys, system design and engineering, installation, cabling, frequency-specific test equipment, control/monitoring equipment, and system testing and commissioning, all of which would be needed for a replacement system.
- The estimates do not include the cost of training hospital personnel on the intricacies of a new system (average \$600-700 per transmitter), sales/use taxes that would be incurred upon replacement; costs of re-registration; site preparation (dust containment, fire wall core drills, closet build-outs, etc.); required upgrades to network closets, power supplies, etc.; or the costs involved in removing and disposing of the old equipment, which could add an additional \$300-\$500 million to the aggregate costs to the health care industry of relocation from Channel 37.
- With over 600 comments on the record (comments, replies, ex parte filings), the overwhelming sentiment supports retaining Channel 37 for WMTS and Radio Astronomy, with virtually no support for relocating WMTS out of Channel 37.

WMTS Coalition Meeting

Band Plans

Band Plans

512	524	536	548	560	572	584	596	608	614	626	638	650	662	674	686	698															
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	700 MHz Uplink



GB = Guard Band
DG = Duplex Gap

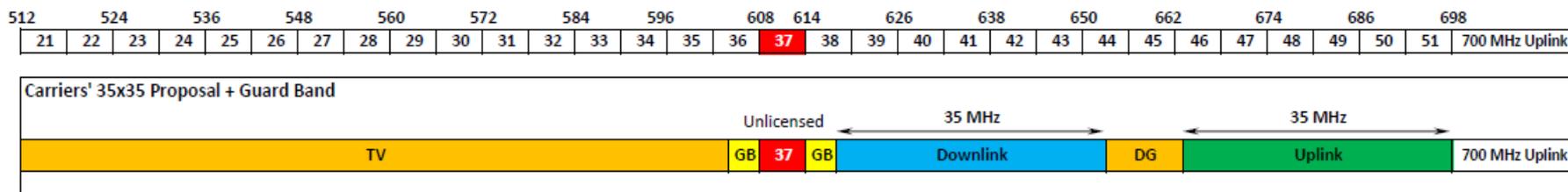


WMTS Band Plan Concerns

- WMTS Coalition has not previously advocated for a particular band plan.
- Adjacent Channel interference from any new high-powered licensees will reduce capacity of existing systems.
 - This will result in reduced patient monitoring or cause some health care facilities to incur significant capital outlays either to add new WMTS capacity in other bands, if available, or to modify systems to avoid harmful interference that could jeopardize patient safety.
- Because incumbent licensees in Channel 37 provide critical patient care, these concerns should be considered and addressed in the adopted band plan.

WMTS Coalition Position

- Existing WMTS installations have been designed case-by-case to avoid interference from incumbent TV Stations operating in Channel 36 or 38, but will not tolerate significant additional interference from any “new neighbors” operating in those bands.
- With the extensive record now developed on various alternatives, WMTS Coalition strongly favors the Down from 51 (35 x 35) plan generally endorsed by wireless carriers and broadcasters that includes a 4 MHz guard band above Channel 37, but with the addition of an additional guard band below Channel 37 to protect against adjacent channel interference from either DTV or Downlink Licensees who may occupy the immediately adjacent channels.



Technical Issues: Adjacent-channel Down Links

WMTS Coalition strongly opposes any band plan that would place any **Uplink** channels in close proximity to Channel 37!

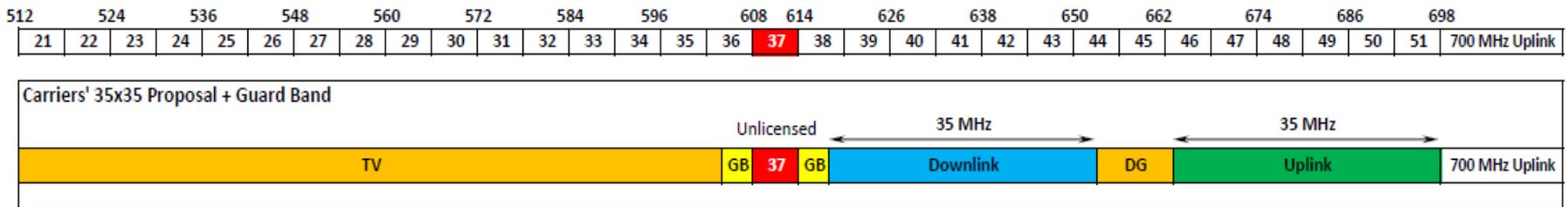
Adjacent channel Downlink Transmitters also will have an impact. The likely proliferation of base stations will significantly increase the potential that a higher powered transmitter will be located very close to WMTS receivers and create OOB interference into a WMTS system.

Technical Issues: Adjacent-channel Downlinks

- To avoid such situations, the WMTS Coalition will work with the Wireless Carrier community to seek a consensus proposal for OOB and in-band operating parameters that will allow effective operation without creating a significant threat of harmful interference into Channel 37 WMTS systems.
- The Coalition will seek to develop a consensus plan for either
 - a requirement for coordination of Downlink base stations with WMTS registered health care facilities to assure that adjacent channel interference will not occur to WMTS licensees; or
 - adoption of more stringent OOB limits for Downlink base stations to protect against OOB in Channel 37 with
 - more stringent power restrictions for in-band emissions in immediately adjacent channels, to be determined based on the size of the guard band established between Channel 37 and the next adjacent bands allocated for Downlinks and the proximity of those stations to a WMTS registered system.

Technical Issues: Adjacent-channel DTV Stations

- If more TV stations are repacked immediately above or below Channel 37, they will create significant interference for incumbent WMTS licensees whose systems were not designed to accommodate **new** adjacent channel uses.
- Existing WMTS systems have engineered around incumbent TV channels on a hospital-specific basis, but generally cannot be retrofitted easily or cost-effectively to avoid interference from newly assigned DTV Stations.
- The Coalition favors a band plan with guard bands directly above and below Channel 37 to protect WMTS licensees.
- The FCC's band plan should only utilize Channel 36 as a last-resort for repacking, so that as few additional TV stations are relocated to operate adjacent to incumbent WMTS licensees as possible.



WMTS Coalition Meeting

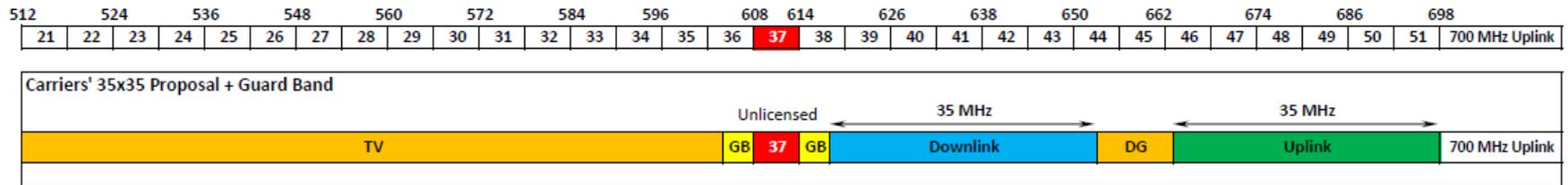
Sharing with Unlicensed Users

Unlicensed Use in Ch. 37

- A review of the record in the TVWS proceeding confirms that *all* stakeholders recognized that it would be impractical for TVWS to operate co-channel with WMTS licensees – nothing has changed except the TVWS community’s desire to operate on more spectrum than may be available after the Incentive Auction.
- Suggestions that the Commission can rely on database coordination of unlicensed devices, using geographic “protection zones” around hospitals to protect WMTS systems from co-channel interference, fails to recognize the virtual certainty that even the best TVWS systems will occasionally fail to restrict unlicensed uses in close proximity to WMTS receivers.
- Proponents of sharing Channel 37 through protection zones fail to recognize that the proliferation of WMTS licensees on Channel 37 in most urban areas will make it generally unavailable for sharing with unlicensed uses – little more “white space” than exists today with TV licensees in the areas with numerous TV stations.

Unlicensed use of Channel 37

- Those favoring sharing of Channel 37 for unlicensed uses do not adequately consider or balance risks to patient safety that will exist if sharing is permitted.
- The Commission should not risk patient safety simply to accommodate the potential that other unlicensed bands will not be adequate to satisfy demand for unlicensed services.
- The Coalition opposes any sharing of Channel 37 with unlicensed devices.
- However, if guard bands are created below and above Channel 37, the WMTS Coalition could support unlicensed devices in the guard bands **if** the TVWS device emission mask – already deemed acceptable by TVWS device proponents when the TVWS rules were adopted – is imposed to avoid adjacent channel interference into Channel 37.



WMTS Coalition Meeting

Additional Discussion Items
Questions??