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March 14, 2016

**EX PARTE VIA ECFS**

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

**Re: Expanding the Economic and Innovation Opportunities of Spectrum through Incentive Auctions, GN Docket No. 12-268, AU Docket No. 14-252.**

Dear Ms. Dortch:

As the Commission moves toward the opening of the 600 MHz auction, efforts are ramping up to ensure that the Commission can effectively undertake the work that will be necessary in the aftermath of a successful auction to conduct an efficient and expedient 600 MHz band repacking. Under any scenario, hundreds of broadcasters remaining in-band will need to be relocated to new channel assignments as regions of the country are cleared so the spectrum can be made available to the new 600 MHz wireless licensees.

Much has been written to date on how long this process should or might take. We don't seek to address that question in this filing. Rather, this letter will comment on the detailed planning that will need to be undertaken to prepare for repacking, on the significant resources that will be necessary to execute on an effective repacking plan and on the type of monitoring and reporting that will be needed to keep stakeholders informed and to ensure that any plan progresses as quickly and efficiently as possible.

Execution of large scale projects with complicated requirements like those contemplated by a robust broadcaster repacking plan contain inherent challenges and risks. We've seen this play out time and again, including with the DTV transition – which took well over a decade to complete and merited three Congressional extensions of time – and with the 800 MHz rebanding effort, which commenced June 27, 2005 for a proposed 36-month timeframe but is still ongoing today.

With the planned implementation of the FCC's reallocation of TV broadcast spectrum through the incentive auction -- and the associated work in processing reimbursements for claims to the TV Broadcaster Relocation Fund -- the FCC is embarking on a similarly complicated and challenging endeavor. Risks and challenges

will abound, including: limits on the availability of necessary equipment; scarcity of skilled personnel necessary for planning, engineering analysis and construction; localized delays driven by weather, local regulations or other external events; and challenges repacking border markets that will rely on predicate action by Canadian and Mexican broadcasters.

Additionally, there will need to be detailed strategic planning to execute on a broad nationwide plan that meets the needs of a diverse group of stakeholders, particularly given the wide range of differences between individual broadcast stations. As has been discussed extensively in some of the other filings in this record, broadcaster equipment needs and relocation requirements will vary from station to station and market to market, impacting the complexity of each station's relocation effort and requiring individual station planning and execution. No one-size solution will fit all stations or all markets.

Finally, the consequences from delays or failures to properly plan or execute on a plan could be significant, particularly for the wireless industry that, having spent billions for the spectrum, will be eager to obtain access to this spectrum as quickly as possible. Failure to obtain timely access to the spectrum will have significant impact on the wireless industry, the products and services we provide, our customers and on the broader U.S. economy at large.

We agree with Chairman Wheeler's observation during his March 2 testimony before the Senate Commerce Committee that "getting the transition right is as important as getting the auction itself right." He noted that, like the auction, the transition will be a complex, multi-disciplinary effort that will span several years and he committed to maintaining the Auction Task Force structure when the auction is complete, as the FCC moves forward from auction to transition.

We support this decision -- strong, centralized FCC leadership on the transition will be essential. We also believe that there are important lessons that can be learned from other FCC projects of similar size, scope, and complexity that underscore the importance of up-front logistical and programmatic planning, careful execution, and robust program management. While the 800 MHz rebanding in many ways was more complex than this effort, there are also many similarities. Notably, the 800 MHz rebanding effort began with the belief that the band could be fully re-organized within 36 months. We now know, in hind sight, that the effort will in fact take more than a decade to complete.

Given the similarities between the two rebanding efforts, the 800 MHz rebanding approach provides many useful insights on which we comment below in three parts: (a) planning for an efficient and optimal repack; (b) stakeholder outreach and communication; and (c) addressing disputes, including potential requests for waivers.

## Planning for an Efficient and Optimal Repack:

High power broadcast signals create significant risks that broadcasters in adjacent markets or assignments will interfere with each other, thus creating significant probability that each individual station's move will depend on another station vacating its assignment first, particularly in the major market areas. Delays by even a single station could create a daisy-chain effect across a market or region and a schedule slip by a single station could impact the ability of other broadcasters or an entire region of broadcasters to complete their relocation.

In establishing a plan, the FCC will need to adopt a regionalized, phased approach that seeks to understand and address potential daisy chain impacts in a manner designed to expedite the clearing of spectrum in a rational and strategic fashion. A well-planned and phased approach might effectively permit more time for challenging areas (including along the borders of Canada and Mexico) while repacking in prioritized areas is expedited.

Thoughtful development of an appropriately phased plan is essential to repacking success, as well as pro-active management of the plan once it is implemented to ensure that any delays are identified quickly and mitigated where ever possible. Such a plan will also need to be iterative with continuous feedback loops to ensure the most robust solutions are reached and the rollout timetable is optimized.

The 800 MHz planning took similar factors into consideration in constructing the transition plan adopted there. There, a Transition Administrator or TA crafted a Plan that struck a balance between regions with larger populations, regions with significant numbers of incidents of interference, the constraints of international border considerations, and the need to have key groups of stakeholders reconfigured at the same time. It also provided some flexibility on timing to expedite the completion of the reconfiguration process.

The Plan attempted, to the extent possible, to address efficiency, cost effectiveness, and speed of reconfiguration. To that end, it provided for a geographically diverse reconfiguration schedule to help ensure that each region would have adequate access to planning, service, and support resources. Based on extensive outreach to a variety of stakeholders, input from those sources and its own analysis, the TA developed the concept of prioritization "waves" in which individual regions and "clusters" of regions were aggregated within the reconfiguration schedule. The first three waves were scheduled for reconfiguration with phased in dates. The fourth wave, which included border markets, was not scheduled until detailed agreements were reached with the Governments of Canada and Mexico.

In preparing the plan, the TA collected detailed information from band stakeholders, industry associations, equipment vendors, individual licensees and industry experts and consultants. The TA also held numerous meetings and teleconferences with many of these stakeholders. Even with those consultations, within 3 months from the 800

MHz Order, the TA released a detailed 40-page transition plan for comment and feedback. The plan can be viewed at:  
<http://apps.fcc.gov/ecfs/document/view?id=6516982905>

The FCC should ensure that it has the resources in place to prepare and release within 3 to 6 months of auction conclusion a similar detailed plan for the 600 MHz band. Indeed, that team should be taking necessary steps now while the auction is proceeding to distill the information currently available on licensees and available repacking resources, and to identify gaps in that information to be in a position to close any such gaps very quickly and move forward with a formal plan once the auction has ended. The team should also be preparing to assess and optimize various approaches to managing the daisy chain effects, identifying and isolating potential challenges at the border so the country can be segmented into regions or waves for purposes of establishing individual station deadlines.

Decisions about how to define regions and prioritize specific geographic locations should be driven by the need to serve two over-arching objectives: making the spectrum available for mobile broadband deployment as expeditiously as possible; and minimizing disruptions for broadcasters and their customers while avoiding unnecessary delays. These objectives will require careful planning designed to unlock as much efficiency as possible while managing foreseeable challenges. Some factors that such planning should take into consideration might include:

- Efficient use of available tower crews and other specialized personnel: Scheduling should be done to allow teams to focus on stations within a distinct geography at one time to facilitate efficient scheduling and execution while taking advantage of local expertise where possible since the type of antenna, permitting process and equipment and terrain experience may be very different for different teams across the country.
- Minimizing the total duration of the transition from start to finish: In some circumstances, this might require staging the various regions to transition the easiest geographies first and the more difficult areas – i.e., locations where analysis suggests more time will be necessary because of weather concerns, border challenges or local limitations -- later in the process. Even within a region careful thought should be given on how to most efficiently stage the approach.
- Delivering public interest benefits to the greatest number of people in the shortest period of time: Prioritization should factor in the population of each defined region to ensure the benefits of the new band are being quickly delivered to as many consumers as possible. Because there will always be risk that the transition process will extend beyond established deadlines -- particularly at the borders -- the plan should be staged so that the areas prioritized last cover only a small minority of Americans. Such an approach also would avoid upsetting the reasonable expectations of bidders, who will be asked to pay higher clock prices at auction for the most densely populated markets.

Taken collectively, we believe these factors suggest the adoption of a regionalized approach that focuses on clearing the east and west coast daisy chains first and working inward from both coasts to both maximize the consumer benefit and minimize the impact of any delays. This assumption will need to be confirmed, however, by substantive engineering and logistical analysis.

### Stakeholder Outreach and Communication

Any efficient repacking will require extensive outreach and communication to affected shareholders. As a preliminary matter, outreach to impacted broadcasters will be essential to facilitate individual station planning, organize the filing and processing of construction permits and to establish individual and regional deadlines for relocation activities.

As the repacking proceeds, regular stakeholder reporting will be essential. As the manager of the 800 MHz reconfiguration effort, the TA continues to this day to report on the progress of 800 MHz band reconfiguration on a quarterly basis. Those reports provide both a program wide snapshot of progress as well as detailed information regarding developments for each individual licensee, including a quarterly update by stage and wave. These reports can run in excess of 100 pages and include detailed maps and appendices. See: <http://www.800ta.org/content/reporting/quarterlyreports.asp>

Similar detailed reports will be needed in connection with the 600 MHz rebanding effort and the FCC should ensure that sufficient resources are in place to monitor, track and report on over-all progress, quarterly developments, emerging red flags and areas of potential risk, including the preparation and publication of detailed maps and information regarding the progress of individual stations toward their assigned deadline. Such reporting will likely require development of a dedicated website for dissemination of transition information to the broad stakeholder group that this effort will include.

Moreover, through this reporting, the FCC and its experts must be in a position to identify general trends and root causes of delay. In these instances, the FCC should have processes in place to conduct root cause analysis of delays and quickly develop recommendations on how to address and mitigate them. This element is important to moving beyond reporting to developing actionable insights and intelligence into the repacking process to expedite availability.

Finally, a consumer outreach plan will also need to be developed. As regions are cleared, impacted broadcast stations will need to flash cut to their new channel assignments on a designated date and consumers in each region will need to be educated on the steps they will need to take to continue to receive over-the-air broadcast content from stations that have relocated.

## Addressing Potential Disputes

800 MHz licensees whose reconfiguration activities extended beyond their assigned deadline were required to submit a waiver request. Hundreds of such waivers were filed, logged, tracked and processed. See: [http://tatoos.800ta.org/PublicTaTools/\(4arivj4504c3ilfmrhdlyi55\)/WaiverProfileStatus.aspx?UrlRequest=ListAll](http://tatoos.800ta.org/PublicTaTools/(4arivj4504c3ilfmrhdlyi55)/WaiverProfileStatus.aspx?UrlRequest=ListAll)

While the new 600 MHz wireless licensees will certainly hope for a smooth, waiver-free transition process, the planning process must contemplate that some broadcast licensees' transition activities might extend beyond the deadline established by the FCC and that those broadcasters will seek a waiver. Such waivers, if filed, must likewise be tracked and quickly and efficiently processed. The FCC must have resources in place that can review waiver filings as soon as they are completed and act quickly to resolve issues raised in such filings to keep the broader transition activities on track.

The FCC must also be prepared to analyze the impact of any waiver requests, particularly those driven by external weather events, on the broader plan. In the 800 MHz rebanding, Hurricane Katrina required that the TA substantially modify the transition plan to work around huge areas of the Southeast as impacted communities focused on recovery and restoration. Such flexible and iterative planning capabilities will also be needed here.

Similarly, the FCC must be prepared to efficiently process broadcaster requests for reimbursement and act quickly to address any disputes that arise in that area as well. Broadcasters must have confidence that they will be effectively reimbursed for relocation expenditures to ensure an orderly transition plan.

In summary, if the transition is not managed effectively, the consequences will be wide-reaching and could seriously undermine an effective transition. Insufficient planning could result in sub-optimal scheduling of key resources; delays in equipment sourcing and/or delivery; poor coordination between stations impacted by daisy chain effects; delays in financial reimbursements; expense or effort duplication; consumer confusion and a heightened risk of litigation. All of these in turn could produce delays, increase uncertainty and harm the wireless industry and its customers.

A carefully developed and regionally prioritized plan, coupled with strong project management, is essential to managing key dependencies and to controlling constraints and challenges. AT&T urges the FCC to utilize all means available to it to ensure that it has the necessary expertise and resources available to establish and execute on an effective and expeditious repacking plan as soon as the auction concludes.

In accordance with the Commission's rules, this letter is being filed electronically with the Secretary for inclusion in the public record.

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'J' and 'M' followed by a horizontal line extending to the right.

Joan Marsh

cc: Gary Epstein  
Howard Symons  
Jon Wilkins