

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Office of Engineering and Technology Seeks Comment)	ET Docket No. 17-340
On Technological Advisory Council Spectrum Policy)	
Recommendations)	

**COMMENTS OF ECHOSTAR SATELLITE OPERATING CORPORATION AND
HUGHES NETWORK SYSTEMS, LLC**

Through a Public Notice¹ (“*Public Notice*”) the Commission’s Office of Engineering and Technology (“*OET*”) has requested public comment on the spectrum policy recommendations of the FCC’s Technological Advisory Council (“*TAC*”) in several white papers.² In particular, the *Public Notice* seeks comment on the nine separate spectrum management guidelines and principles based on TAC recommendations in the *Basic Spectrum Principles White Paper*. It asks whether the Commission should adopt these principles as a policy statement and whether there are specific matters where the Commission should apply these principles. EchoStar Satellite Operating Corporation (“*EchoStar*”) and Hughes Network Systems, LLC (“*Hughes*”) are pleased to submit these comments in response to the *Public Notice*.

EchoStar and Hughes commend the work of the *TAC* and the attention *OET* is giving to the *TAC*’s work through the *Public Notice* process. It is critically important that the FCC

¹ *Office of Engineering and Technology Seeks Comment on Technological Advisory Council Spectrum Policy Recommendations*, Public Notice, ET Docket No. 17-340, DA 17-1165 (rel. Dec. 1, 2017).

² See FCC Technological Advisory Council, *Basic Principles for Assessing Compatibility of New Spectrum Allocations* (2015), available at <https://transition.fcc.gov/bureaus/oet/tac/tacdocs/meeting121015/Principles-White-Paper-Release-1.1.pdf> (last visited Jan. 24, 2018) (“*Basic Spectrum Principles White Paper*”); see also FCC Technological Advisory Council, *Interference Limits Policy and Harm Claim Thresholds: An Introduction* (2014), available at <https://transition.fcc.gov/oet/tac/tacdocs/reports/TACInterferenceLimitsIntro1.0.pdf> (last visited Jan. 24, 2018).

consider how it can facilitate efficient use of the nation's spectrum resources. However, the Commission should proceed very carefully before adopting general principles to which it would refer to guide future decisions regarding so many aspects of spectrum policy, from allocations and service rules to licensing and resolution of interference complaints.

Three concerns prompt EchoStar and Hughes to oppose reliance on the nine principles stated in the *Basic Spectrum Principles White Paper*. First, the principles are, by design, very general. We are concerned that rather than facilitating more objective spectrum policy, these very general principles could be used as tools to rationalize decisions made on other grounds and to politicize the processes of adopting allocations, defining service rules and resolving interference complaints. General principles will be interpreted in certain ways over time, and those interpretations will carry the authority of the general principles without necessarily reflecting the same level of intended objectivity.

Second, general principles cannot substitute for careful deliberation of the particulars of each band, including (but not limited to) existing and planned deployments, existing and planned adjacent uses, international and regional allocations and uses, important services that are not primary, and other factors. If the Commission were starting anew with no allocations and no existing transmitters and receivers in operation, perhaps some set of general guidelines could be adopted that would assist in making better decisions in that theoretical greenfield environment. But every part of every band in every geographic area has a different a different history, a different "footprint" and a different matrix of expectations and vulnerabilities for those that rely on it. Those licensees, equipment makers, standards publishers and ultimate users must be able to rely on a stable RF environment and consistent FCC spectrum management policies.

Third, we are concerned that reference to these generic principles may lead to spectrum decisions that are in conflict with the critical spectrum policy goals of technology neutrality, certainty, and flexibility that EchoStar, Hughes, and others have urged the Commission to pursue, and which the Commission has pursued with great success, in recent years. Not all services, technologies and architectures operate with the same requirements. We cannot predict today how the nine principles, if formally integrated into FCC spectrum policy, might undermine existing or planned systems or operations. For example, might these principles be at odds with technology neutrality by inherently favoring licensed over unlicensed, low power over high power systems, point-to-point over omnidirectional transmissions or terrestrial over satellite uses (or, in each case, vice versa)? Even if they do not inherently favor certain technologies or systems, might they do so as applied?

The *Basic Spectrum Principles White Paper* at least suggests that the Commission should *reject* certainty as a high priority in spectrum management. To the extent the nine principles suggest that systems, even years after deployment, must accept new interference that was not anticipated in their initial system designs, EchoStar and Hughes strongly disagree that those principles should be adopted as Commission policy. At the very least, any such obligations to accept new interference should be limited to new services operating in newly allocated bands where incumbent operations are not affected.

Principle #7, too, could be read to run counter to the well-established Commission goal of allowing licensees and other spectrum users flexibility to deploy, operate and innovate within their authorizations and applicable service rules. It suggests that existing users, operating completely within the Commission's rules, must disclose presumably highly sensitive details of their operations in order for those operations to be protected fully. The implication is that a

licensee must anticipate that any other use that is compatible with the licensee's then-existing use might be permitted, thereby boxing in that licensee from further service evolution. A policy such as this would stymie innovation and chill investment. A licensee's operations should be protected as long as it complies with its license and the applicable service rules and allocation.

It is doubtless frustrating to those wishing to deploy new services that their proposed uses are incompatible with the rights of existing licensees and operators. But without regulatory certainty, the country would not have the benefit of the extraordinarily sophisticated radio communications systems that it enjoys today. The goal of general overriding spectrum policy principles is laudable, but it may not be capable of being applied in a pragmatic way to bands that are already widely used. Instead, the Commission inevitably will have to continue carefully to consider the particulars of each new spectrum allocation in or near widely used bands. The *TAC* appears to acknowledge this, at least in part, by acknowledging that “‘one policy fits all’ is not possible with such disparate requirements of various services” and by acknowledging that a “concrete set of regulations will [not necessarily] fit all services in the same way.”³

³ *Basic Spectrum Principles White Paper* at 4.

The *Public Notice* asks if the FCC should incorporate the *TAC*'s nine principles into FCC spectrum policy. For the reasons discussed above, EchoStar and Hughes believe the principles, while perhaps providing a useful framework for analysis of entirely "greenfield" policy decisions when no existing allocations, licenses or deployments are impacted, are too general to be used by the FCC for a broad range of spectrum policy decisions.

Respectfully submitted,

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