

## **EchoStar and Hughes Welcome Outcomes of the World Radiocommunications Conference**

November 22, 2019

## Access to spectrum sets the global stage for delivery of essential satellite services

DENVER, Nov. 22, 2019 /PRNewswire/ -- EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite communication solutions, and <a href="Hughes Network Systems.LLC">Hughes Network Systems.LLC</a> (HUGHES), the global leader in broadband satellite networks and services, today announced support of the outcomes of the 2019 World Radiocommunications Conference (WRC), which took place in Sharm el-Sheikh, Egypt, October 28 to November 22, 2019. The WRC occurs every three to four years, convening delegates from around the globe to address global management of radio-frequency spectrum and satellite orbits.



EchoStar and Hughes appreciate the outcomes of the WRC, including:

- Access to additional Fixed Satellite Service (FSS) spectrum in the 51.4-52.4 GHz band;
- Increased certainty for maritime and aeronautical broadband services by satellite in the Ka-band;
- Increased certainty for Mobile Satellite Service (MSS) in the S-band and no change for 5G terrestrial;
- Increased certainty for FSS operations that will be shared with terrestrial International Mobile Telecommunications systems in the above-24 Ghz bands; and
- Future agenda items to include access to additional FSS and MSS spectrum as well as studying the use of the Ka-band for satellite-to-satellite links.

"The outcomes of the WRC-19 validate the critical role of satellite in the connected future," said Jennifer Manner, senior vice president of regulatory affairs, EchoStar and Hughes. "We've gained access to new spectrum and consideration of additional spectrum to support our customers in the future. Plus, we have laid the foundation for an interoperable ecosystem in which satellite and terrestrial 5G both play important parts."

"We applaud the International Telecommunications Union Radiocommunication Sector for the important work its international delegates do at the WRC in managing the world's precious spectrum and orbital assets," said Pradman Kaul, president, Hughes. "As our industry continues to flourish, and other innovators, operators and visionaries look to join us in connecting the unconnected around the world, fair and measured allocation and oversight of these vital assets is nothing short of essential."

Mike Dugan, chief executive officer, EchoStar, added: "The results of WRC-19 reflect the value of satellite in the global communications ecosystem. The outcomes will ensure that we have regulatory certainty with regard to spectrum, as well as the operational flexibility we need to meet demand for broadband services that connect people, enterprises and things."

## **About Hughes Network Systems**

Hughes Network Systems, LLC (HUGHES) is the global leader in broadband satellite technology and services for home and office. Its flagship high-speed satellite Internet service is HughesNet<sup>®</sup>, the world's largest satellite network with over 1.4 million residential and business customers across the Americas. For large enterprises and governments, the company's HughesON™ managed network services provide complete connectivity solutions employing an optimized mix of satellite and terrestrial technologies. The JUPITER™ System is the world's most widely deployed High-Throughput Satellite (HTS) platform, operating on more than 40 satellites by leading service providers, delivering a wide range of broadband enterprise, mobility and cellular backhaul applications. To date, Hughes has shipped more than 7 million terminals of all types to customers in over 100 countries, representing approximately 50 percent market share, and its technology is powering broadband services to aircraft around the world.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar

Corporation (NASDAQ: SATS), a premier global provider of satellite operations. For additional information about Hughes, please visit <a href="https://www.hughes.com">www.hughes.com</a> and follow <a href="https://www.hughes.com">@HughesConnects</a> on Twitter.

## **About EchoStar**

EchoStar Corporation (NASDAQ: SATS) is a premier global provider of satellite communication solutions. Headquartered in Englewood, Colo., and conducting business around the globe, EchoStar is a pioneer in secure communications technologies through its Hughes Network Systems and EchoStar Satellite Services business segments. For more information, visit <a href="mailto:echostar.com">echostar.com</a>. Follow <a href="mailto:echostar">echostar</a> on Twitter.

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