Before the
U.S. DEPARTMENT OF COMMERCE
BUREAU OF INDUSTRY AND SECURITY

In the matter of:	)	
	)	
Export Administration Regulations (EAR):	)	Docket No. 130110030–3030–01
Control of Spacecraft Systems and Related	)	RIN 0694–AF87
Items the President Determines No Longer	)	
Warrant Control Under the United States	)	
Munitions List (USML)	)	
	)	

COMMENTS OF ECHOSTAR SATELLITE SERVICES L.L.C.
AND HUGHES NETWORK SYSTEMS, LLC

EchoStar Satellite Services L.L.C. ("ESS") and Hughes Network Systems, LLC ("Hughes") ("collectively "EchoStar")[1] hereby provide comments on proposed changes to the Export Administration Regulations ("EAR") in the above-referenced rulemaking proceeding. EchoStar is interested in this proceeding because ESS operates and/or manages a fleet of 22 owned and leased in-orbit satellites and leases capacity on a full-time and occasional-use basis to direct-to-home satellite televisions providers, U.S. government service providers, state agencies, Internet service providers, broadcast news organizations, programmers and private enterprise customers. ESS also provides value added services such as telemetry, tracking and control services to third parties. Hughes is a global provider of broadband satellite technologies and services for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments. Hughes uses its two owned satellites, SPACEWAY 3, which has a commandable payload, and EchoStar XVII, and additional satellite capacity acquired from multiple third-party providers to provide satellite broadband Internet access to the North

[1] ESS and Hughes are indirect, wholly-owned subsidiaries of EchoStar Corporation.

American consumer market and broadband network services and systems to the domestic and international enterprise markets.

EchoStar agrees with and supports the overall export control reform initiative and the U.S. Government's conclusion that commercial communications satellites ("comsats") no longer warrant control under U.S. Munitions List Category XV. In particular, EchoStar agrees with and supports the proposal of the Department of Commerce's Bureau of Industry and Security ("BIS") proposal to control the export of comsats under the export licensing jurisdiction of the EAR and classify such satellites under the Commerce Control List ("CCL"). EchoStar further agrees that the proposed changes will enhance national security by permitting U.S. Government agencies to focus their resources on controlling those items that (i) contain or involve technologies unique to the United States, (ii) are critical to U.S. national security, or (iii) involve destinations, end uses, and end users of greater national security concern than NATO allies and other multi-lateral regime partners.

We also appreciate this opportunity to provide comments regarding the proposed rulemaking. While EchoStar generally agrees with and supports BIS's proposals, after review of the proposed rules, in particular, the new Export Control Classification Number ("ECCN") 9E515 and its proposed control of "spacecraft"-related "technology," EchoStar has identified at least one aspect of the proposed rules that could benefit from further clarification.

EchoStar believes that the scope of "technology" controlled under ECCN 9E515.a and ECCN 9E515.b should be clarified. Specifically, EchoStar requests that telemetry data, in and of itself,

from an operational commercial comsat should be deemed not to fall within the scope of ECCNs 9E515.a or 9E515.b because the telemetry data does not constitute "technology" "required" for the "development," "production," or "operation, installation, maintenance, repair, overhaul or refurbishing" of commercial comsats controlled by ECCN 9A515. Additionally, even if a person intercepted a telemetry data stream (which is highly unlikely), for the reasons stated below, telemetry data, by itself, would not contribute to the military potential of other countries or jeopardize or harm the national security or foreign policy interests of the United States.

Telemetry data is useful for satellite operations since it provides information on the current health and status of the satellite. Yet, telemetry data is not required for and actually is not relevant for purposes of "development" or "production" of a satellite or installation of components on a comsat. Furthermore, telemetry data cannot be used to operate or maintain a satellite without being processed through ground control software, including the satellite command and telemetry database, which resides within a ground control system. The database is specific to each satellite, and includes critical information that defines each of the thousands of telemetry points. Among other things, the satellite command and telemetry database identifies which subsystem originates the telemetry point, provides a plain English descriptor, establishes the range of possible values and identifies the unit of measure. The satellite cannot be controlled until its database has been incorporated into the ground control software. Once paired, the software and database enable the recipient of the telemetry data to understand the current health of the satellite in relation to its design and its status before, during and after a command is implemented. Ultimately, it is the ground control software and the satellite command and

telemetry database that enable operation of the satellite by sending commands that have been properly formatted and coded to the specific satellite.

Without the satellite-specific context provided by the satellite command and telemetry database, telemetry data is meaningless and cannot be used to operate or maintain the satellite. Therefore, it would seem that a satellite's telemetry data is not "required" for the operation or maintenance of comsats – that the data is not "peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics or functions of" comsats controlled by 9A515. However, since the proposed rule does not define "operation" or specify "performance levels, characteristics or functions" for comsats controlled by 9A515, all information handled or processed in relation to the operation or maintenance of a comsat could be deemed to be controlled by paragraph 9E515.a ("'spacecraft,' including satellites, manned or unmanned space vehicles, whether designated developmental, experimental, research or scientific, not enumerated in USML Category XV"). In addition, if telemetry data is deemed to fall within the scope of controlled "technology," any equipment in which such telemetry data resides would also be necessarily subject to control and create the need for export licenses for any person accessing such equipment. To preclude these potential consequences, EchoStar recommends that ECCN 9E515 be clarified to exclude comsat telemetry data disconnected from the satellite-specific context provided by the satellite command and telemetry database.

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Based on the foregoing, we respectfully request that BIS adopt the clarifications set forth in these comments.

Respectfully submitted,

By: *Sean P. Fleming*

Sean P. Fleming
Senior Counsel, International and Trade Compliance

Paul Lauper Ellison
Senior Trade Compliance Counsel

ECHOSTAR SATELLITE SERVICES L.L.C.
100 Inverness Terrace East
Englewood, Colorado 80112 USA
(303) 706-4000

HUGHES NETWORK SYSTEMS, LLC
11717 Exploration Lane
Germantown, Maryland 20876
(301) 428-5500

Date: July 8, 2013