

STEPTOE & JOHNSON^{LLP}

ATTORNEYS AT LAW

Pantelis Michalopoulos
202.429.6494
pmichalo@steptoe.com

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Federal Communications Commission
Office of Secretary

1330 Connecticut Avenue, NW
Washington, DC 20036-1795
Tel 202.429.3000
Fax 202.429.3902
steptoe.com

May 4, 2005

Received
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Policy Branch
International Bureau

Via HAND DELIVERY

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: **EchoStar Satellite L.L.C. Application for Special Temporary Authority To Move EchoStar 5 to 129° W.L. and To Conduct Telemetry, Tracking and Command Operations During the Relocation to this Orbital Location.**
File Number: STA-STA-20050203-00018

Dear Ms. Dortch,

On April 4, 2005, the International Bureau requested that EchoStar Satellite L.L.C. ("EchoStar") provide certain additional information to the Commission regarding the above-referenced application within 30 days. *See* Letter from Thomas S. Tycz, Chief, Satellite Division, International Bureau to Pantelis Michalopoulos, Counsel for EchoStar ("*April 4 Letter*").

The *April 4 Letter* requested that EchoStar submit by today: (1) "the relevant arrangements in the form of definitive agreements and a final TT&C Agreement" with respect to the relocation and use of EchoStar 5 at the 129° W.L. orbital location; (2) a technical assessment of the operability of the EchoStar 5 satellite, including any bus or payload failures that have occurred, and a discussion of the unused fuel reserves on the satellite, the impact of those failures on the consumption of fuel by the satellite, and the projected life expectancy of the satellite; (3) a description of the arrangements for disposition of the satellite upon termination of the contract, or upon any event which results in removal of the satellite from the 129° W.L. orbital location; and (4) the plan for post-mission disposal of the EchoStar 5 satellite.

EchoStar hereby submits items (2) and (4) above (*see* Attachments A and B) and requests a short, one-week extension of time to submit items (1) and (3). With respect to item (1), while

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EchoStar and Ciel Satellite Communications, Inc. ("Ciel") have been diligently negotiating and EchoStar believes that the parties are close to reaching definitive arrangements regarding the relocation, use, and control of the EchoStar 5 satellite at 129° W.L., it now appears unlikely that such an agreement will be ready for submission to the Commission by today's deadline. EchoStar also requests a short extension to submit item (3) (description of arrangements for disposition of EchoStar 5) as it relates in part to the final terms of the agreement reached between EchoStar and Ciel with respect to EchoStar 5.

Accordingly, EchoStar requests a short, one-week extension of time to submit a portion of the requested information. There is good cause for the extension.¹ The parties have been diligent in negotiating the agreement and a one week extension will afford the parties the time needed to finalize their agreement. Moreover, no third party would be prejudiced by such a short extension as no opposition or comments have been received with respect to the above-referenced request for special temporary authority.

Please contact the undersigned if you have any questions regarding the above.

Respectfully submitted,



Pantelis Michalopoulos
Counsel for EchoStar Satellite L.L.C.

Cc: (by hand and electronic mail)

Thomas S. Tycz, Chief, Satellite Division, International Bureau
Karl Kensinger, International Bureau
Jay Whaley, International Bureau

¹ See, e.g., *WAIT Radio v. FCC*, 415 F.2d 1153 (D.C. Cir. 1969).

EchoStar 5 Spacecraft Operability Assessment

I. GENERAL

EchoStar 5 is a Space Systems Loral model FS1300 spacecraft launched 9/16/1999. The spacecraft is currently used as an on-orbit spare and located at the 119 W.L. orbital slot.

II. BUS AND PAYLOAD ANOMALIES

Solar Array String Failures

The EchoStar 5 satellite is equipped with a total of 96 solar array strings, 92 of which are required to assure full power availability for the 12-year design life of the satellite. To date, EchoStar 5 has suffered failures to 5 solar array strings, reducing solar array power to approximately 95% of its original capacity. While currently capable of operating 32 transponders, as designed, the solar array anomalies may prevent the use of some of those transponders for the full 12-year design life of the satellite.

Momentum Wheels

Two momentum wheel anomalies previously experienced resulted in operation of the spacecraft in a modified earth-pointing mode utilizing thrusters to maintain spacecraft pointing. While this operating mode provides adequate earth-pointing performance, it results in both an increase in fuel usage (with corresponding reduction of spacecraft life), and continuous operations of the digital integrated rate assemblies (DIRAs). Current total DIRA on-times exceed those recommended by the spacecraft manufacturer.

Transponder Failures

The EchoStar 5 satellite is equipped with 48 transponders, 16 of which are used as spares for the other 32. To date, EchoStar V has had 3 transponders fail. All failed transponders can be replaced with a spare transponder.

DCU (Data Concentrator Unit) Multiplexer Chip Failures

EchoStar 5 has experienced anomalies in a spacecraft electronic component which affects the ability to receive telemetry from certain on-board equipment. Other methods of communication have been established to alleviate the effects of the failed component.

Thruster 5A Performance Issue

EchoStar 5 satellite experienced a suspected blockage in thruster 5A, which reduced the performance of this thruster. Thruster 5B is currently being used in place of thruster 5A.

III. REMAINING MISSION LIFE

Due to the previously identified momentum wheel failures, EchoStar 5 is currently using thrusters to maintain earth-pointing in a "storage mode" at the 119 W.L. orbital slot. Analysis based on propellant bookkeeping, indicates a remaining mission life of 5.9 years (as of 12/22/04), in "storage mode" at this location. When EchoStar 5 is transitioned to a mode supporting broadcast operations at 129 W.L. (assuming an on-station date at 129 W.L. of June 2005), the estimated

Attachment A

mission life is reduced due to tighter earth pointing requirements, but remains at about 3.5 years or approximately through December 2008.

EchoStar 5 Post-Mission Disposal Plan

The planned end-of-life maneuvers for the EchoStar 5 satellite consist of thruster firings to achieve a 300 km increase in mean orbit altitude. This will ensure compliance with 47 C.F.R. § 25.283(a). The propellant required for the planned maneuvers has been included in all mission life estimates.