

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the matter of)	
)	
E-SAT, Inc.)	
)	
Authorization to Construct, Launch and Operate)	Call Sign S2149
a Non-Voice, Non-Geostationary Mobile Satellite)	File Nos. 26-SAT-P/LA-95
System in the 137-138 and 148-150.5 MHz)	11-SAT-AMEND-98
Frequency Bands)	
)	
Application for Minor Modifications of License to)	File No SAT-MOD-20001229-00172
Launch and Operate a Non-Voice, Non-)	
Geostationary Mobile Satellite System)	
)	
Petition for Extension of Launch Milestones)	File No. SAT-MOD-20020401-00059

MEMORANDUM OPINION AND ORDER

Adopted: April 21, 2003

Released: April 23, 2003

By the Chief, International Bureau:

I. INTRODUCTION

1. With this Order, we deny the request of E-SAT, Inc. (“E-SAT”) to extend implementation milestones set forth in its non-voice, non-geostationary satellite orbit mobile satellite service license. Those milestones required E-SAT to, among other things, complete construction of its first two satellites by March 2002, and to launch the first two satellites by September 2002. Consistent with the express terms of its license, we declare that E-SAT’s license is null and void for failure to meet its system implementation milestones. Given this finding, we dismiss, as moot, E-SAT’s application to modify the orbital parameters of its license.

II. BACKGROUND

2. The International Bureau granted E-SAT a license to launch and operate a non-voice, non-geostationary satellite orbit (“NGSO”) mobile-satellite service system in low Earth orbit (a “Little LEO” system) in the second processing round for the Little LEO service (the “Second Round”).¹ E-SAT is authorized to operate a six-satellite Little LEO system in the 148-148.905 MHz uplink and the 137.0725-137.9275 MHz downlink frequency bands. Its license was made possible by a spectrum sharing agreement reached in late 1997 between E-SAT and the other Second Round applicants. Under the spectrum sharing agreement, all of the Second Round applicants could be licensed in the available Little

¹ *E-SAT, Inc. Application for Authorization to Construct, Launch and Operate a Non-Voice, Non-Geostationary Mobile Satellite System in the 137-138 and 148-150.05 MHz Frequency Bands*, Order and Authorization, 13 FCC Rcd. 10859 (Int’l Bur. 1998) (“*E-SAT License*”).

LEO service spectrum.² The Commission adopted a *Report and Order* in October 1997 that essentially adopted that sharing agreement as the basis for service rules applicable to the Second Round applicants.³ The *Report and Order* concluded that sufficient spectrum exists to license additional Little LEO systems in the Second Round if such systems use, among other things, appropriate transmission techniques. The *Report and Order* directed Second Round applicants to amend their applications to conform to the rules adopted in the *Report and Order*. All other changes would be treated under the Commission's existing rules. E-SAT filed such an amendment, applying for what the sharing agreement called System 3, a spread spectrum system using code division multiple access ("CDMA") transmission techniques.⁴ The spectrum sharing agreement and the *Report and Order* also required the System 3 licensee to operate under the constraints of the spectrum formerly licensed to Starsys Global Positioning, Inc. ("Starsys"), a First Round licensee.⁵

A. Orbital Parameters

3. E-SAT's Second Round conforming amendment proposed changes to the orbital parameters originally requested in E-SAT's application. Specifically, E-SAT proposed to change its system's orbital altitude from 1262 kilometers to 893.79 kilometers, and its orbital inclination from 100.7° to 99.01°.⁶ The *E-SAT License* granted these orbital changes based on E-SAT's certification that the operations of its system with the revised orbital parameters would not provide any greater interference than would have been generated by Starsys's system.⁷

4. On August 30, 2000, counsel for E-SAT advised the Commission that E-SAT had brought a satellite into use in its authorized frequency bands.⁸ E-SAT later reported that this statement was based on a payload aboard "SNAP-1," a 6.5 kg satellite built and launched by Surrey Satellite Technology Limited.⁹ In documents subsequently filed in connection with a license modification application, E-SAT indicated that the SNAP-1 satellite is operating at an altitude of approximately 695 kilometers and an orbital inclination of 98.2°, as of January 4, 2001.¹⁰ The orbital characteristics of SNAP-1 are not consistent with the orbital parameters set forth in E-SAT's license. Those parameters specify operation of the E-SAT system at an altitude of 893.79 kilometers and an orbital inclination of 99.01°. The orbital characteristics of SNAP-1 are also different from those found in filings made by the Commission on behalf of E-SAT at the International Telecommunication Union.

² Joint Proposal of E-SAT, Inc., Final Analysis Communication Services, Inc., Leo One USA Corporation, Orbital Communications Corporation, and Volunteers in Technical Assistance (filed Sept. 22, 1997).

³ *Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service*, Report and Order, 13 FCC Rcd. 9111, 9112-13 (1997) ("*Report and Order*").

⁴ *Id.* at 9127; E-SAT Amendment to Application for a Non-Voice, Non-Geostationary Satellite System, File No. 11-SAT-AMEND-98 (filed October 28, 1997).

⁵ *Report and Order*, 13 FCC Rcd. at 9127.

⁶ *Id.* at 10867.

⁷ *Id.* at 10868.

⁸ Letter from Leslie A. Taylor, Counsel to E-SAT, Inc., to Magalie Salas, Secretary, FCC (August 30, 2000).

⁹ See Letter from Leslie A. Taylor, Counsel to E-SAT, Inc., to Magalie Salas, Secretary, FCC (January 19, 2001) Attachment at p. 8 ("*Technical Appendix*"). See also Surrey Satellite Technology Limited website, at www.sstl.co.uk/news/pr_962270166.html (announcing that SNAP-1 was launched on June 28, 2000); DBS Industries, Inc. website, at <http://www.irconnect.com/dbsse/pages/news.mhtml> (September 19, 2000 press release).

¹⁰ Technical Appendix at p. 8.

5. Noting these discrepancies in orbital parameters, the Commission asked E-SAT, in October 2000, to explain how its operations would be made to comply with its license.¹¹ In response, E-SAT filed the instant Modification Application in December 2000, seeking authority to modify its Commission license to match the orbital parameters in its ITU filing, that is, an altitude to 800 kilometers, and an orbital inclination to 98.3°.¹² The Modification Application was placed on Public Notice on February 22, 2001.¹³ No comments were filed in response.

B. Milestones

6. The *E-SAT License* required E-SAT to adhere to a milestone schedule, including completing construction of its first two satellites by March 2002 and launching those satellites by September 2002.¹⁴ By the express terms of the license, E-SAT's failure to meet those milestones would "automatically render E-SAT's license for its system null and void."¹⁵ In March 2002, E-SAT requested that the Commission waive Section 25.117(e) of the Commission's rules in order to extend the milestones for launching the remaining five satellites in E-SAT's system.¹⁶ Specifically, E-SAT seeks to extend the date of launch of its second satellite from September 2002 to September 2004, and to extend the date for completion of construction and launch of the remaining four satellites from March 2004 to March 2006.¹⁷ The Milestone Extension Request was placed on Public Notice on April 24, 2002.¹⁸ No comments were filed in response.

C. E-SAT Ownership and Finances

7. In support of its original license application, E-SAT certified that the cost of constructing and launching its system would be approximately \$49.22 million and that the operating expenses of the system would be approximately \$22.731 million for five years' operations.¹⁹ E-SAT submitted balance sheets of its majority owner, EchoStar Communications Corporation ("EchoStar"), with current assets well in excess of the \$71.951 million sum of E-SAT's projected launch and operating expenses. The *E-SAT License* Order found E-SAT financially qualified for its license on the basis of this showing.²⁰ At that time, EchoStar owned 80 percent of the stock of E-SAT, and DBS Industries, Inc. owned the

¹¹ Letter from Thomas S. Tycz, Chief, Satellite and Radiocommunication Division, FCC, to Leslie A. Taylor, Counsel to E-SAT (October 13, 2000).

¹² E-SAT, Inc. Application for Minor Modification of its License to Launch and Operate a Non-Voice, Non-Geostationary Mobile Satellite System, File No. SAT-MOD-20001229-00172 (filed December 29, 2000), at p.3 ("Modification Application"). The Modification Application did not address how the SNAP-1 satellite could be made to comply with the *E-SAT License*.

¹³ *Satellite Policy Branch Information, Satellite Space Applications Accepted for Filing*, Report No. SAT-00065 (released February 22, 2001).

¹⁴ *E-SAT License*, 13 FCC Rcd. at 10873-74.

¹⁵ *Id.*

¹⁶ E-SAT, Inc. Petition for Extension of Launch Milestones, File No. SAT-MOD-20020401-00059 (filed March 29, 2002) (the "Milestone Extension Request").

¹⁷ *Id.* at p. 2. The Milestone Extension Request does not address the requirement that construction of its second satellite be completed by March 2002, nor the requirement to commence construction of the remaining four satellites by March 2001.

¹⁸ *Satellite Policy Branch Information, Satellite Space Applications Accepted for Filing*, Report No. SAT-00109 (released April 24, 2002).

¹⁹ *E-SAT License*, 13 FCC Rcd. at 10872.

²⁰ *Id.*

remaining 20 percent of the shares. In May 2000, E-SAT applied for authority to change the percentage of ownership in E-SAT to DBSI owning 80.1 percent of the E-SAT stock, and EchoStar owning the remaining 19.9 percent of the shares. On November 21, 2000, the Bureau approved the transfer of control application, based on the applicants' assertion that grant of the transfer would facilitate implementation of the E-SAT system.²¹

III. DISCUSSION

8. It is longstanding Commission policy to impose milestones for system implementation, typically deadlines by which licensees must commence construction, complete construction, and launch their satellites.²² Requiring licensees to make and fulfill realistic construction and launch commitments prevents increasingly scarce orbital and spectrum resources from being warehoused by licensees. Such warehousing could hinder the availability of services to the public at the earliest possible date by blocking entry by other entities willing and able to proceed immediately with the construction and launch of their satellite systems.²³ The Commission has strictly enforced system implementation milestones because it is in the public interest to ensure that licensees proceed expeditiously to complete construction of their full systems and to commence service.²⁴

A. Request for Milestone Extension

9. E-SAT asks the Commission to extend the construction and launch milestones of its license.²⁵ E-SAT asserts that an extension is warranted because DBSI's efforts to raise funds to complete construction and launch of the remaining five satellites in its system have been significantly slowed by the financial difficulties of other NGSO systems and the telecom sector of the economy in general.²⁶

10. Section 25.117(e)(1) of the Commission's rules provides for modification of licenses to extend milestones when delay in system implementation is due to (1) unforeseeable circumstances beyond the control of the licensee or (2) there are unique and overriding public interest concerns to justify an extension.²⁷ The Commission's rules also may be waived if there is good cause to do so.²⁸ Waiver can be appropriate where special circumstances warrant a deviation from the rules, and where such deviation

²¹ *E-SAT, Inc., EchoStar Communications Corporation and DBS Industries, Inc. Application for Consent to Transfer of Control of Authorization to Launch and Operate a Non-Voice, Non-Geostationary Mobile Satellite System*, Order and Authorization, 15 FCC Rcd. 22531 (Int'l Bur. 2000) ("*E-SAT Transfer*").

²² *See, e.g., MCI Communications Corporation*, 2 FCC Rcd. 233, 234 (1987) (milestone schedule included in each domestic space station authorization issued by the Commission).

²³ *First Columbia Milestone Order*, 15 FCC Rcd 15566, 15571 (2000); *National Exchange Satellite, Inc.*, Memorandum Opinion and Order, 7 FCC Rcd 1990, 1991 (Com. Car. Bur. 1992).

²⁴ *See Advanced Communications Corporation*, Memorandum Opinion and Order, 10 FCC Rcd 13337, 13338 (Int'l Bur. 1995); *Policies and Procedures for the Licensing of Space and Earth Stations in the Radiodetermination Satellite Service*, 104 F.C.C.2d 650, 665 (1986) (*Radiodetermination Satellite Service Rules Order*).

²⁵ *E-Sat License*, 13 FCC Rcd. at 10874.

²⁶ Milestone Extension Request at pp. 2-3.

²⁷ 47 C.F.R. § 25.117(e)(1) (2002).

²⁸ *See* Section 1.3 of the Commission's Rules, 47 C.F.R. § 1.3 (2002). *See also WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969) (*WAIT Radio*); *GE American Communications Inc. Request for Extension of Time to Construct, Launch and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, 16 FCC Rcd. 11038, 11041 (Int'l Bur. 2001).

would better serve the public interest than strict adherence to the general rule.²⁹ Circumstances that justify a waiver include considerations of hardship, equity, or more effective implementation of overall policy.³⁰ Generally, the Commission may grant a waiver of its rules only if the relief requested would not undermine the policy objectives of the rule in question, and would otherwise serve the public interest.³¹ We find that E-SAT does not present special circumstances warranting a waiver, and that grant of a waiver under these circumstances would undermine our milestone policy.

11. The International Bureau found that E-SAT was financially qualified for a Little LEO license on the basis of the balance sheets of its then-controlling entity, EchoStar.³² When E-SAT applied for authority to transfer control of its license to DBSI in May 2000, it asserted that DBSI would thereby be able to proceed with expeditious financing and construction of the E-SAT system.³³ The transfer was authorized in November 2000. Sixteen months later, in March 2002, E-SAT requested a two-year extension of its milestones in order to afford DBSI additional time to raise funds.

12. E-SAT's request for waiver to extend its milestones is wholly based on the difficulty DBSI has had in raising funds for the completion of construction and launch of the E-SAT system. E-SAT states that its system is a moderate, low-cost approach to Little LEO service, asserting that the well-publicized difficulties of mobile satellite systems costing billions of dollars contrasts favorably with what E-SAT estimates will be the \$60-\$80 million dollar cost of its system.

13. The Commission has held, in numerous cases, that fluctuations in business cycles and licensees' reactions to them do not constitute unforeseeable circumstances beyond the licensee's control. In other words, the Commission has repeatedly found that economic considerations do not justify milestone extensions.³⁴ The circumstances raised by E-SAT, namely, a failure to attract investors, an uncertain business situation, or an unfavorable business climate in general have never been adequate excuses for failure to meet a construction timetable in any satellite service.³⁵ Similarly, we have consistently held that "[f]ailure to obtain the financing necessary to proceed according to schedule will not be considered to be circumstances beyond the control of the licensee" sufficient to warrant an extension of milestones.³⁶ We therefore find that E-SAT has failed to demonstrate that the additional time it seeks to implement its satellite system is necessary due to unforeseeable circumstances beyond its control.

14. In addition, grant of this waiver request would undermine Commission milestone policies. Although E-SAT hopes to eventually raise \$60 to \$80 million dollars in capital for its system, it recently requested a waiver of a \$94,425 regulatory fee, stating that it had only \$2,397 in cash on hand at that

²⁹ See *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990).

³⁰ *WAIT Radio*, 418 F.2d at 1159.

³¹ *WAIT Radio*, 418 F.2d at 1157.

³² *E-Sat License*, 13 FCC Rcd. at 10872.

³³ *E-Sat Transfer*, 15 FCC Rcd. at 22532.

³⁴ See, e.g., *Application of American Telephone and Telegraphy Company and Ford Aerospace Satellite Services Corporation for Transfer and Modification of Authority to Construct, Launch and Operate Space Stations in the Domestic Fixed-Satellite Service*, Memorandum Opinion and Order, 2 FCC Rcd. 4431, 4434 (1987) (AT&T was denied milestone extensions it sought on the basis of its business judgment to procure a more advantageous construction contract); see also *MCI Communications Corporation*, 2 FCC Rcd. 233, 234 (1987) (MCI denied additional time to determine whether implementation of a satellite system it purchased was economical).

³⁵ *United States Satellite Broadcasting Company, Inc. and Dominion Video Satellite, Inc.*, 3 FCC Rcd. 6858, 6859 (1988) ("*USSB and Dominion Video*").

³⁶ *Radiodetermination Satellite Service Rules Order*, 104 F.C.C.2d at 665 n.48.

time.³⁷ Under these circumstances, prospects for prompt initiation of service appear remote, at best, and an insufficient basis to warrant waiver of milestone requirements.³⁸ Further, the circumstances here are distinguishable from circumstances where we have granted a waiver of milestones.³⁹

15. E-SAT provides no reason to expect that the two-year extension it requests will lead to any more success in raising funds than it has achieved in the five years it has already been licensed. We find that E-SAT has not met its burden of demonstrating that it faces unforeseeable circumstances beyond its control, nor has it persuaded us that there are unique and overriding public interest concerns justifying its extension request. We therefore deny its request for waiver to extend its milestones. Consequently, in light of our denial of E-SAT's request for waiver to extend its milestones, the E-SAT license is null and void by its terms.

B. Modification Application and Unauthorized Operations

16. The *E-SAT License* authorizes its Little LEO system at an orbital altitude of 893.79 kilometers and an orbital inclination of 99.01°. ⁴⁰ In June 2000, E-SAT purported to commence communications under its license based upon the operation of the SNAP-1 satellite. The SNAP-1 satellite operates at an altitude of 695 kilometers and an orbital inclination of 98.2°. To the extent that E-SAT is relying upon the operation of the SNAP-1 satellite to meet milestone requirements under its license, the reliance is misplaced. SNAP-1's orbital parameters are different from those authorized in E-SAT's license.

17. Moreover, E-SAT did not file an application for modification of its system's orbital altitude and inclination before its purported commencement of operations at parameters far different from those authorized in its license. Section 25.117(a) of the Commission's rules requires that no modification of a radio station affecting the parameters or terms and conditions of the station authorization shall be made except upon application to and grant of such application by the Commission.⁴¹ When Commission staff wrote to E-SAT requesting an explanation as to how its operations could be made to comply with its license, E-SAT filed in response a modification application requesting orbital parameters that did not reflect the parameters of its purported operations, but instead proposed yet a third set of orbital parameters.

18. Section 25.117 requires authorization prior to any modifications affecting the parameters of a space station.⁴² E-SAT did not obtain the necessary prior approval. Consequently, we find that any operations in which E-SAT engaged with the SNAP-1 satellite were unauthorized operations. Unauthorized operations will not be considered as a basis for meeting FCC implementation milestones, nor will an interest in continuation of any such operations be viewed as valid grounds for waiving milestone requirements.⁴³

³⁷ E-Sat, Inc., Request for Waiver or Deferral of the Commission's Annual Regulatory Fee and Petition to Defer Payment Due to Financial Hardship at p. 4 (filed September 21, 2001).

³⁸ *USSB and Dominion Video*, 3 FCC Rcd. at 6860.

³⁹ See *GE American Communications, Inc. Request for Extension of Time to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, Order and Authorization, 16 FCC Rcd. 11038, 11041 (Int'l Bur. 2001) (early and continuing demonstration of intent to proceed).

⁴⁰ See *supra* at ¶ 3; *E-SAT License*, 13 FCC Rcd. at 10869.

⁴¹ 47 C.F.R. § 25.117(a) (2002).

⁴² *Id.*

⁴³ We are referring this matter separately to our Enforcement Bureau for any further necessary action.

IV. CONCLUSION

19. Based on the foregoing, we conclude that E-SAT has failed to meet the milestone conditions of its authorization. We further conclude that E-SAT's failure to satisfy this condition rendered its authorization null and void.

V. ORDERING CLAUSES

20. Accordingly, IT IS ORDERED, that the authorization held by E-SAT, Inc., File Nos. 26-SAT-P/LA-95; 11- SAT-AMEND-98 is DECLARED NULL and VOID.

21. IT IS FURTHER ORDERED that the E-SAT, Inc. Petition for Extension of Launch Milestones, File No. SAT-MOD-20020401-00059 is DENIED.

22. IT IS FURTHER ORDERED that E-SAT, Inc.'s Application for Minor Modifications of its License to Launch and Operate a Non-Voice, Non-Geostationary Mobile Satellite System, File No. SAT-MOD-20001229-00172 is DISMISSED.

23. This Order is issued pursuant to delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Donald Abelson
Chief
International Bureau