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DA 96-1942

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

INTL. REFERENCE CENTER

In the Matter of the Applications of)
)
AT&T CORP.)
)
)
For Authority to Construct, Launch, and)
Operate Space Stations in the Domestic)
Fixed-Satellite Service)

SAT. HA-19940714-00037

File Nos. 48-DSS-LA-94
62-SAT-AMEND-95
63-SAT-P/LA-95
64-SAT-P/LA-95
65-SAT-P-95

MEMORANDUM OPINION AND ORDER

Adopted: November 20, 1996

Released: November 21, 1996

By the Chief, International Bureau:

Introduction

1. On May 7, 1996, we authorized the construction, launch, and operation of eleven satellites in the domestic fixed-satellite ("domsat") service and assigned them to satellite orbit locations,¹ with separate opinions addressing the merits of each application to follow. We issue this MO&O for the authorizations granted to AT&T Corp. to construct, launch, and operate two hybrid C-/Ku-band² domestic fixed-satellites at the 93° W.L. and 69° W.L. orbital positions, and to construct one on-ground spare. These authorizations both partially replace and expand AT&T's satellite capacity and allow it to meet growing customer requirements, while contributing to increased competition in the market for satellite services.

¹ See *Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service*, DA 96-713 (May 7, 1996) ("May 7 Order").

² For purposes of this opinion, the C-band encompasses the 3700-4200/5925-6425 MHz frequency bands; the Ku-band encompasses the 11.7-12.2/14.0-14.5 GHz bands.

Background

2. In its application, AT&T requested authority to construct, launch, and operate three hybrid C-/Ku-band in-orbit satellites and to construct one on-ground spare.³ It identified the proposed satellites as Telstar 5, 6, 7, and 8, respectively.⁴ GE American Communications ("GE Americom") and Hughes Communications Galaxy, Inc. ("HCG") filed comments concerning AT&T's applications. For the reasons discussed below, in the May 7 Order, we granted in part, and denied in part, AT&T's applications.⁵

3. Prior to the 1996 domsat processing round, AT&T was authorized to operate three domestic fixed-satellites: Telstar 303 (C-band) at 120° W.L.,⁶ Telstar 401 (hybrid C-/Ku-band) at 97° W.L., and Telstar 402R (hybrid C-/Ku-band) at 89° W.L. It is also authorized to operate the C-band Aurora II satellite at 139° W.L., pursuant to a joint license with GE Americom.⁷ Finally, it is authorized to operate the C-band Telstar 302 satellite, which was replaced by Telstar 402R, until its current location -- 85° W.L. -- is needed by the satellite most recently assigned to 85° W.L.⁸

4. AT&T's new generation satellites will each have 24 C-band transponders and 28 Ku-band transponders. The C-band transponders each have a bandwidth of 36 MHz, a space station transmitter power of 16 watts, and a maximum effective isotropically radiated power ("EIRP") of

³ AT&T has requested that certain cost and revenue information be treated as confidential. No one has opposed this request or questioned AT&T's financial qualifications. Based on the current record non-disclosure is consistent with our rules. See 47 C.F.R. § 0.461.d that

⁴ AT&T, previously, submitted an application to construct a hybrid satellite identified as Telstar 403, File No. 48-DSS-LA-94. It replaced this proposal with the Telstar 5 application.

⁵ AT&T Corp. and Loral Space and Communications, Ltd. have applied to the Commission for authority to transfer control of AT&T's Telstar series satellites to Loral. This order is not intended to prejudge Commission action in that proceeding. See Public Notice, Report No. SPB-63 (October 23, 1996).

⁶ Telstar 303, to be replaced by Telstar 5, is authorized to operate in an inclined orbit mode until December 31, 1997. See *AT&T Corp.*, 11 F.C.C. Rcd. 10570 (1996). Earlier, Telstar 303 received special temporary authority ("STA") to operate in an inclined orbit mode and relocate to 120° W.L. due to HCG's launch of Galaxy IX into the 123° W.L. orbit location, the location previously occupied by Telstar 303. See letter from Thomas S. Tycz, Chief, Satellite and Radiocommunication Division, to Mary Jane McKeever, Vice President and General Manager, SKYNET® Satellite Services (May 16, 1996).

⁷ GE Americom identifies this satellite as Satcom C-5.

⁸ GE-2 has been assigned this location but it has not yet been launched. See *GE American Communications, Inc.*, 10 F.C.C. Rcd. 13775 (1995). Telstar 302 is due to go out of service in 1998.

40.3 dBW.⁹ Of the twenty-eight Ku-band transponders, twenty-four have a bandwidth of 27 MHz and four have a bandwidth of 54 MHz. The Ku-band transponders have a space station transmitter power of 100 watts and a maximum EIRP of 48.1 dBW. AT&T proposed to provide coverage to the 48 contiguous states ("CONUS"), Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands.¹⁰ AT&T estimated the cost to construct and launch its four originally proposed satellites and to operate them for one year to be \$950 million. It requested the 93° W.L. orbital location for Telstar 5, 129° W.L. for Telstar 6, and 83° W.L. for Telstar 7. AT&T sought to offer services on a non-common carrier basis. It proposed to launch Telstar 5 in May 1997, Telstar 6 in November 1998, and Telstar 7 in November 1999.

5. AT&T asserts that its proposed system will serve as follow-on capacity for its in-orbit satellites, ensuring continuity of service, providing protection, and meeting the demand of its current and future customers. It further asserts, in light of its acquisition of Alascom, Inc., that Telstar 6 is partially earmarked to provide additional and enhanced service to Alaska.¹¹

Discussion

A. Telstar 6

6. Under our rules, an existing qualified licensee may be assigned one additional orbit location in each frequency band in which it is authorized to operate.¹² No objections were raised regarding AT&T's qualifications to hold a domestic fixed-satellite license for Telstar 6, AT&T has been found qualified in the May 7 Order and we, therefore, found that AT&T was legally, technically, and financially qualified to construct, launch, and operate Telstar 6.¹³ Accordingly, we granted in the May 7 Order, AT&T's application for an expansion hybrid satellite and assigned Telstar 6 to the 69° W.L. orbit location.

7. AT&T Corp intended the Telstar 6 application to, in part, replace the C-band Aurora II/Satcom C-5 satellite. GE Americom disputed AT&T's contention that it was entitled to the replacement expectancy for Aurora II. To the contrary, GE had previously applied to replace this satellite with its own satellite, GE-3. We did not have sufficient information before us to determine which party was entitled to the replacement expectancy for this jointly licensed satellite. Since we did

⁹ We emphasize that the Commission expects AT&T Corp. not to exceed the power flux density ("PFD") levels as specified in 47 C.F.R. § 25.208(a).

¹⁰ The Ku-band transponders will also provide incidental coverage to Canada, Mexico, and the Caribbean.

¹¹ AT&T was granted approval to purchase Alascom, and its interest in the Aurora II/Satcom C-5 satellite, on August 1, 1995. *See Alascom Inc.*, 11 F.C.C. Rcd. 734 (1995). Telstar 6 is being planned as a replacement for Aurora II, which will reach its end-of-life in 2001.

¹² 47 C.F.R. § 25.140(g).

¹³ *See* 47 C.F.R. § 25.140(b).

not want to delay authorization of needed satellite capacity pending resolution of this issue, we deferred consideration of AT&T's request to replace Aurora II.¹⁴ In doing so, we recognized that the Aurora II/Satcom C-5 satellite is scheduled to reach its end-of-life in 2001. Given the two to three year construction period for satellites, a replacement would need to be authorized by 1998 or 1999 to ensure continuity of service to customers. While we expect to resolve this issue sooner than that, our deliberations would be facilitated if the parties would negotiate an agreement.¹⁵ Accordingly, we require that AT&T Corp. and GE Americom attempt to reach an agreement regarding the replacement of the Aurora II/Satcom C-5 satellite within 180 days of the release of this order. If the parties cannot agree they may then ask us to resolve the dispute.

B. Telstar 5

8. AT&T proposed to replace its C-band Telstar 303 satellite with a hybrid C-/Ku-band satellite, Telstar 5.¹⁶ GE asserted that we should not consider Telstar 5 as a replacement for Telstar 303 for two reasons. First, the proposed hybrid involves an additional Ku-band orbit location in excess of that allowed by our rules.¹⁷ Second, AT&T proposes to locate Telstar 5 at an orbital location different from Telstar 303.

9. Generally, the Commission permits licensees to replace retired satellites with new ones. This provides service continuity to customers and assurance to licensees and financiers making capital intensive investments in these systems.¹⁸ AT&T has requested replacement of the Telstar 303 satellite within a reasonable time frame.¹⁹ Nevertheless, we acknowledge, as GE points out, that licensees generally replace retired satellites with satellites at the same location. We have, however,

¹⁴ Inasmuch as we do not now authorize the replacement of Aurora II, we did not assign AT&T an appropriate orbital location in the western portion of the domestic arc. If AT&T, however, is later given authority to replace Aurora II -- which primarily serves Alaska -- we will assign it to an appropriate westerly orbital position at that time.

¹⁵ We consider an optimally high elevation angle for service to Alaska to be an important objective of the Aurora series of satellites. Consequently, we are concerned with the apparent intent of AT&T and GE to replace the Aurora II/Satcom C-5 satellite at a more easterly orbital location than the current 139° W.L. orbital location, since such a change may not serve the intended objective of providing adequate service to Alaska.

¹⁶ AT&T was granted a 319(d) waiver for Telstar 5 which allowed it to begin construction of that satellite immediately. See letter from Scott Blake Harris, Chief, International Bureau, to Mary Jane McKeever, Vice-President and General Manager, SKYNET® Satellite Services (March 9, 1995).

¹⁷ See 47 C.F.R. § 25.140(g). AT&T Corp. was granted a total of two Ku-band in-orbit authorizations in this processing round.

¹⁸ See *Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service* 3 F.C.C. Rcd. 6972 (1988) at n.31 ("1988 Orbital Assignment Order").

¹⁹ See *Licensing Space Stations in the Domestic Fixed-Satellite Service*, 50 Fed. Reg. 36071 (September 5, 1985) at ¶¶ 28.

often authorized replacement satellites at other locations to accommodate a licensee's changing business plans or system design.²⁰ Thus, AT&T's request to operate Telstar 5 at 93° W.L., in itself, would not prevent us from authorizing it as a replacement.

10. We acknowledge, however, that only the C-band portion of the newly authorized Telstar 5 satellite can be considered a replacement for Telstar 303. Nonetheless, there are cost efficiencies inherent in hybrid satellites and we have attempted to accommodate hybrid satellites where possible.²¹ In this processing round we have an adequate number of orbit locations to satisfy all qualified applicants. Granting AT&T's request would permit the most cost-effective use of the limited orbit spectrum resource. Under these circumstances, in our May 7 Order, we granted AT&T a waiver of Section 25.140(g) of our rules to allow it more than one expansion Ku-band authorization in this processing round.²² AT&T Corp. was found to be legally, technically, and financially qualified to construct, launch, and operate Telstar 5. Accordingly, we granted AT&T's application for the Telstar 5 hybrid satellite. We assigned Telstar 5 to the 93° W.L. orbit location.

C. Telstar 7

11. HCG contended, that granting AT&T's Telstar 7 application would violate our expansion satellite policy. AT&T, however, stated that a strict interpretation of the rule would be contrary to the public interest because such an interpretation would limit its expansion capability and not allow it to compete effectively. It asserted, that this result would be inconsistent with the marketplace since discrete processing rounds create a situation where satellite capacity can only be allocated as a "step function."²³

12. Section 25.140(g) of our rules says that each qualified applicant may be assigned "no more than one additional orbital location beyond its current authorizations in each frequency band in which it is authorized to operate."²⁴ No valid interpretation of this rule would allow AT&T an

²⁰ No additional orbital locations would be required to accommodate this request.

²¹ The Commission has recognized the advantages of hybrid satellites. See *GTE Spacenet Corp.*, 9 F.C.C. 1271, 1273 (Comm. Car. Bur. 1994), citing *Hughes Communications Galaxy*, 6 F.C.C. Rcd. 72 (1991). See also *Hughes Communications Galaxy*, DA 95-1736, released August 9, 1995 (denying request to locate the Ku-band only SBS-6 to a hybrid slot). See also *Comsat General Corporation*, 4 F.C.C. Rcd. 3820 (Com. Car. Bur., 1989) at ¶ 8.

²² We granted similar waivers to GE and HCG in this processing round.

²³ In light of the lengthy construction period required for satellites we have recognized that licensees need to make traffic projections several years in advance of launching satellites and that these forecasts will be, to some extent, speculative. Our expansion rule, therefore, strikes a balance between providing licensees some certainty that an additional orbital assignment would be available if traffic growth was realized and preventing other companies' plans from being blocked by authorizing satellites that ultimately might not be needed. See *Licensing Space Stations in the Domestic Fixed-Satellite Service*, 50 Fed. Reg. 36071 (September 5, 1985).

²⁴ 47 C.F.R. § 25.140(g).

additional expansion C-/Ku-band satellite, absent a waiver of the rule. AT&T, however, did not present any unique circumstances to justify a waiver. It did not, for example, provide specific documentation of existing and projected traffic requirements or any contracts for capacity on Telstar 7. Consequently, in our May 7 Order, we denied AT&T's application for its proposed Telstar 7 satellite. We affirm that decision here.

D. Telstar 8 (redesignated Telstar 7)

13. We routinely authorize the construction of ground spares, in part, to permit operators to provide protection in the event of a satellite failure. No objections were raised regarding AT&T's qualifications to hold a license for the ground spare, Telstar 8.²⁵ AT&T is legally, technically, and financially qualified to construct Telstar 8.²⁶ Accordingly, in our May 7 Order, we granted AT&T's application for its Telstar 8 ground spare, which we redesignate Telstar 7.

E. Coordination

14. AT&T's satellites are to operate with a maximum EIRP of 37.0 dBW at C-band and 46.5 dBW at Ku-band. GE contended that these levels are higher than those routinely used by other satellite operators and that AT&T should, therefore, bear the burden of frequency coordination for these satellites. AT&T stated that its satellites will not create more interference than other C-band satellites already approved and that they will fully comply with our two-degree spacing policy.

15. In the May 7 Order, we concluded that there was no longer a need to assign high power density satellites to specific portions of the arc to facilitate coordination.²⁷ Rather, we found that newer generation satellites were already operating at these higher powers with no interference problems. Contrary to GE's assertion, AT&T's proposed powers are consistent with those of other authorized satellites. We, therefore, will not require AT&T to bear the entire burden of coordination with licensees in adjacent orbit locations. Rather, we expect, as always, that adjacent licensees will cooperate in reaching coordination agreements that will allow both satellites to operate without causing each other harmful interference.²⁸

Conclusion and Ordering Clauses

16. We find that pursuant to Section 309 of the Communications Act, 47 U.S.C § 309,

²⁵ Telstar 8 was redesignated Telstar 7 to preserve continuity in numbering of the Telstar 5 series.

²⁶ See 47 C.F.R. § 25.140(b). See May 7 Order at ¶ 10.

²⁷ See GE American Communications, Inc., 3 F.C.C. Rcd. 687 (1988).

²⁸ See Hughes Communications Galaxy, Inc., 7 F.C.C. Rcd. 4672, 4673 (1992), GTE Spacenet Corporation, 3 F.C.C. Rcd. 6986 (1988), Satellite Transponder Leasing Corporation, F.C.C. Rcd. 1651 (1990), and Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service. 5 F.C.C. Rcd. 179 (1989).

grant of AT&T's Telstar 5, Telstar 6, and Telstar 8 (redesignated Telstar 7) applications will serve the public interest, convenience, and necessity. This will allow AT&T to provide follow-on capacity to its existing customers and to expand its system to meet anticipated traffic growth. As specified in the May 7 Order, we have assigned Telstar 5 and 6 to the 93° W.L. and 69° W.L. orbital locations, respectively.

17. Accordingly, IT IS ORDERED that application file Nos. 48-DSS-LA-94, 62-SAT-AMEND-95, 63-SAT-P/LA-95, 64-SAT-P/LA-95, and 65-SAT-P-95 ARE GRANTED IN PART and DENIED IN PART, as discussed in this order, and AT&T Corp. IS AUTHORIZED to construct three hybrid C-/Ku-band fixed-satellites in accordance with the technical specifications set forth in its applications.

18. IT IS FURTHER ORDERED that AT&T Corp. IS AUTHORIZED to launch and operate two space stations in the fixed-satellite service in accordance with the Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, DA 96-713 (May 7, 1996), as well as the relevant terms and conditions of all previous orders and authorizations concerning the operation of space stations. These requirements include the filing of annual reports on the progress of space station construction, traffic on in-orbit satellites and transponder use. See *Streamlining the Commission's Rules and Regulations for Satellite Application and Licensing Procedures*, IB Docket No. 95-117 (adopted October 29, 1996).

19. IT IS FURTHER ORDERED that unless extended by the Commission for good cause shown, each of the authorizations shall become NULL AND VOID in the event the space station is not constructed, launched, and successfully placed into operation in accordance with the technical parameters, terms, and conditions of the authorizations by the following dates:

	Construction Commenced	Construction Completed	Launch
Telstar #5	1/30/97	12/30/97	3/30/98
Telstar #6	1/30/97	12/30/98	1/30/99
Telstar #8 ²⁹	12/30/97		

20. IT IS FURTHER ORDERED that AT&T Corp. shall relinquish any right to the continued operation of Telstar 303 at the time it begins commercial operation of Telstar 5. AT&T Corp. shall immediately inform the Commission when commercial operation of Telstar 5 has begun.

21. IT IS FURTHER ORDERED that the license term for these space stations is ten years and will begin to run on the date the licensee certifies to the Commission that the particular satellite has been successfully placed into orbit and the operations fully conform to the terms and conditions of this authorization.

22. IT IS FURTHER ORDERED that AT&T Corp. will prepare, within 90 days of the release of this order, the necessary information for submission to the International Telecommunication Union ("ITU") to initiate the advance publication, international coordination, and notification process

²⁹ Redesignated Telstar 7.

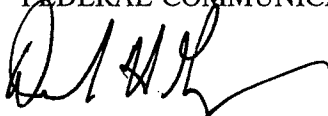
of these space stations in accordance with the ITU Radio Regulations and for consultation in accordance with Article XIV of the INTELSAT agreement. We also remind all licensees that no protection from interference caused by radio stations authorized by other Administrations is guaranteed unless coordination procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio stations authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other Administrations, 47 C.F.R. § 25.111(b).

23. IT IS FURTHER ORDERED that the assignment of any orbital location to AT&T Corp. is subject to change by summary order of the Commission on 30 days notice and does not confer any permanent right to use the orbit and spectrum. Neither this authorization, nor any right granted by this authorization, shall be transferred to any person except upon application to the Commission and upon a finding by the Commission that the public interest, convenience, and necessity will be served thereby.

24. AT&T Corp. is afforded thirty days from the date of release of this order and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

25. This Order is issued under Section 0.261 of the Commission's rules, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of public notice of this order (see 47 C.F.R. § 1.4(b)(2)).

FEDERAL COMMUNICATIONS COMMISSION



Donald H. Gips
Chief, International Bureau