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

In the Matter of

HUGHES

File Nos. 5/6-DSS-MP/ML-92

COMMUNICATIONS GALAXY, INC.

Application to combine two single satellites into one hybrid satellite

HUGHES

File No. 16-DSS-ML-92

COMMUNICATIONS GALAXY, INC.

Application for interim orbital assignments of Galaxy 6

HUGHES

File No. 17-DSS-ML-92

COMMUNICATIONS GALAXY, INC.

Application to use Galaxy 6 as replacement satellite for Galaxy 2

SATELLITE TRANSPONDER File No. 18-DSS-ML-92

LEASING CORPORATION

Application for interim orbital assignment of SBS-4 to 770 W.L.

SATELLITE TRANSPONDER File No. 19-DSS-ML-92 LEASING CORPORATION

Application for interim orbital assignment of SBS-6 to 950 W.L.

ORDER AND AUTHORIZATION

Adopted: October 2, 1992; Released: November 2, 1992

By the Chief, Common Carrier Bureau:

I. INTRODUCTION

1. Hughes Communications Galaxy, Inc. (HCG) and its wholly-owned subsidiary, Satellite Transponder Leasing Corporation (STLC), have filed several applications relating to their domestic fixed-satellite systems. HCG/STLC request authority to consolidate two single-band satellites into one hybrid satellite and request authority for various interim and regular orbital assignments. Petitions to deny and comments were filed on the various applications. For the reasons discussed below, we grant HCG authority to operate a hybrid satellite at 95° W.L., grant HCG authority to replace Galaxy 2 with Galaxy 6 at 74° W.L., dismiss HCG's request to locate Galaxy 6 at 103° W.L. on an interim basis, grant STLC authority to locate SBS-4 at 77° W.L. on an interim basis subject to certain conditions, and deny STLC authority to locate SBS-6 at 950 W.L. on an interim basis.

II. BACKGROUND

- 2. HCG is authorized to operate a 12/14 GHz (Ku-band) satellite at 131° W.L. (Galaxy B-R) and a 4/6 GHz (C-band) satellite at 950 W.L. (Galaxy 3-R). HCG wants to combine these two single-band satellites into a single hybrid satellite at 950 W.L. (Galaxy 3H) to be launched January 1994. Communications Satellite Corporation (Comsat) filed a petition to deny¹ the HCG request because Comsat's subsidiary, Comsat General Corporation (Comsat General), is operating the Ku-band SBS-3 satellite at 95° W.L. Comsat General is authorized to operate SBS-3 at that location until November 1992. Using the Comsat maneuver² to extend SBS-3's useful life, Comsat General has requested extended authority to operate SBS-3 at 950 W.L. beyond the date on which HCG seeks to launch Galaxy 3R.3
- 3. HCG's C-band Galaxy 6 satellite is operating at 990 W.L. on an interim basis until Galaxy 4H is launched into 990 W.L. in early 1993. Galaxy 6 does not have a regularly assigned orbital location. Galaxy 2 is operating at 740 W.L. until its end-of-life in December 1993. HCG wants to use Galaxy 6 as the replacement satellite for Galaxy 2 at 740 W.L. instead of launching a new satellite as Galaxy 2's replacement. No party objects to this request. HCG also wants to operate Galaxy 6 at 1030 W.L. for an interim period between the time Galaxy 4H replaces it at 990 W.L. in early 1993 and the end-of-life of Galaxy 2 in December 1993. GTE Spacenet Corporation (GTE Spacenet) and GE American Communications, Inc. (GE Americom) filed comments on both applications. GTE Spacenet has no objection to Galaxy 6 being located at 103⁶ W.L. provided that such authority be conditioned on Galaxy 6 not causing any adverse interference into its Spacenet 4 hybrid satellite at 1010 W.L. GE Americom argues that Hughes has not justified an interim assignment at 1030 W.L. and that any authorization should be conditioned to prevent Hughes from obtaining regular authority at 1030 W.L.
- 4. STLC is operating its Ku-band SBS-4 satellite at its assigned 91° W.L. location. STLC seeks to relocate SBS-4 temporarily at 77° W.L. when the Galaxy 7H satellite (as-

in an inclined orbit mode using the Comsat maneuver. Comsat General Corporation, 6 FCC Rcd 3345 (Dom. Fac. Div. 1991). Comsat General has filed a request to extend the operating authority of SBS-3 until December 31, 1995. Application File No. 29-DSS-ML-92. We will dispose of that application in a separate action.

The petition was received after the established comment

The Comsat maneuver is a satellite control technique in which a satellite operator ceases north-south stationkeeping of its satellite to conserve fuel and thereby extend the spacecraft's operational life-time.

The SBS-3 satellite is assigned to, and operating at, 95° W.L.

signed to operate at 91° W.L.) is launched in October 1992. STLC seeks to operate SBS-4 at 77° W.L. through the end of SBS-4's useful life in August 1994.⁴ No party objects to this proposal.

5. STLC seeks an interim orbital assignment for its Kuband SBS-6 satellite. SBS-6 is operating at 99° W.L. on a temporary basis, although it is assigned to 72° W.L. STLC wants to relocate SBS-6 to 95° W.L. in February 1993 when Galaxy 4H becomes operational at 99° W.L. STLC wants to operate SBS-6 at 95° W.L. until Galaxy 3H is launched into 95° W.L. in January 1994. Comsat filed a petition to deny the STLC request arguing that it intends to operate SBS-3 at 95° W.L. until 1995. GE Americom filed comments suggesting that if an interim orbital assignment is granted, the older SBS-4 should be used at 95° W.L. instead of the newer SBS-6 so that HCG may not "leverage" regular authority from this grant.

III. DISCUSSION

Galaxy 3H

6. HCG proposes to implement a new Galaxy 3H hybrid satellite at 95° W.L. instead of implementing a Ku-band satellite at 131° W.L. and a C-band satellite at 95° W.L. The proposed technical specifications of Galaxy 3-H are virtually identical to those authorized for the single-band satellites. Grant of this request would essentially entail reassigning HCG's Ku-band space segment from 131° W.L. to 95° W.L. HCG would receive no additional orbital locations. Comsat General is operating SBS-3 at 95° W.L. using the Comsat maneuver. It has applied for authority to continue to use this maneuver to extend SBS-3's useful life beyond its November 1992 license expiration and the proposed launch date of Galaxy 3H. Comsat General asserts that if it is required to cease operations from 95° W.L. before 1995, it will suffer irreparable economic harm.

7. The Bureau has authorized the use of the Comsat maneuver to extend the operational life of older satellites until state-of-the-art satellites authorized to operate from the same locations are ready to be launched. However, those authorizations were not intended to be used to delay the availability of new satellite technology. Thus, authorizations to use the Comsat maneuver to operate a satellite beyond its license term include a condition rendering the

authorization subject to cancellation without a hearing should the Commission find it necessary to accommodate more efficient satellites or if, in the opinion of the Commission, circumstances should so require.⁹

8. HCG proposes to consolidate two single-band satellites into a state-of-the-art hybrid satellite that would operate at 95° W.L. Operating a state-of-the-art hybrid satellite rather than two single-band satellites may have certain efficiencies. Construction, launch and insurance costs for one hybrid will be lower than the costs for two single-band satellites. ¹⁰ Moreover, hybrid satellites can be designed with technical capabilities equivalent to single-band satellites. Thus, hybrid satellites can provide cost savings to operators and customers with no decrease in technical performance. Consequently, the Commission has attempted, when possible, to assign operators to corresponding C-band and Ku-band orbital locations. ¹¹ We have also reassigned C-band and Ku-band satellites assigned to different locations to facilitate implementation of hybrid satellites. ¹²

9. Comsat opposes HCG's proposal because Comsat General wants to continue to operate its SBS-3 satellite at 950 W.L. beyond its November 1992 license expiration and past the launch of Galaxy 3H in January 1994.13 We find, however, it is not in the public interest to allow an obsolete satellite to continue to operate past its license term and effectively block the entry of a new, more efficient hybrid satellite that may be regularly assigned to that location. New state-of-the-art satellites employ technological advancements that use the spectrum more efficiently and that allow more customers to be served with maximum quality service. SBS-3, for example, does not employ full frequency re-use nor are its transmission powers comparable to the latest generation of satellites being built. Accordingly, we find it is in the public interest to permit HCG to combine its single-band licenses at 95° W.L. and 131° W.L. into one license for a state-of-the-art hybrid satellite at 95° W.L.

10. Further, we do not find that Comsat's desire to operate SBS-3 beyond its license term gives rise to hearing rights or alters the availability of the 95° W.L. orbital location for reassignment. Comsat has not applied for a replacement satellite for SBS-3. 14 Consequently, Comsat has no renewal expectancy 15° at 95° W.L. and the location is available for reassignment at the expiration of SBS-3's license term. 16° Any grant of extended operational authority for SBS-3 would be granted subject to cancellation in its

⁴ Originally, STLC proposed to relocate SBS-4 to 83⁰ W.L. Petitions to deny this proposal were filed by GE Americom, American Telegraph & Telephone (AT&T) and Primestar Partners, L.P. Consequently, STLC decided to propose an alternative interim location for SBS-4 at 77⁰ W.L.

See Satellite Transponder Leasing Corporation, 5 FCC Rcd 1651 (Com. Car. Bur. 1990).

⁶ See para. 2, supra.

⁷ Comsat also argues that the Commission is obligated to hold a hearing before it can grant HCG's applications pursuant to Section 309 of the Communications Act, 47 U.S.C. § 309 (1991), and Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945), because Comsat argues the competing claims to 95⁰ W.L. are mutually exclusive.

⁸ See Comsat General Corporation, 4 FCC Rcd 3820 (Com. Car. Bur. 1989), at para. 8.

⁹ See, e.g., letters from Chief, Domestic Facilities Division, to H. Richard Juhnke (February 26, 1988) (Extension of operating authority and authority to use the Comsat maneuver for Westar 3) and Robert Mansbach (July 26, 1988, February 29, 1988 and

September 1, 1987) (Comsat maneuver for SBS-2, Comsat D-2/D-4 and SBS-1, respectively). See also GTE Spacenet Corporation, 5 FCC Rcd 1182 (Com. Car. Bur. 1990) (Comsat maneuver for GSTAR III).

¹⁰ See Hughes Communications Galaxy, Inc., 5 FCC Rcd 3423 (Com. Car. Bur. 1990).

See Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, 3 FCC Rcd 6972 (1988).

¹² See GE American Communications, Inc., 7 FCC Rcd 5169 (Com. Car. Bur. 1992).

Comsat General has stated that the Comsat maneuver can extend a satellite lifetime by five to seven years beyond the normal design life.

Comsat seeks to operate SBS-3 for an additional three years. Satellite operators may file applications for authority to construct and launch satellites up to five years in advance of the planned launch date. Licensing Space Stations in the Domestic Fixed-Satellite Service, 50 Fed. Reg. 36071 (1985), at para. 28.

15 1988 Assignment Order, 3 FCC Rcd 6972, at note 31.

¹⁶ See, e.g., 1988 Assignment Order, 3 FCC Rcd 6972, at para. 11

entirety without a hearing, consistent with prior Division action. ¹⁷ Thus, contrary to Comsat's claim otherwise, the Commission is not required to conduct a hearing pursuant to Ashbacker Radio Corp. v. FCC. In addition, Comsat, in its petition to deny, has failed to make specific allegations of fact sufficient to show that grant of HCG's application would be prima facie inconsistent with the public interest. 18 Even assuming that all of Comsat's allegations are true, grant of HCG's request would not be contrary to the Commission's domestic satellite policies. As stated above, the Commission has recognized the public interest benefits inherent in state-of-the-art hybrid satellites. 19 Moreover, the Commission has recognized the importance of implementing newer generation satellites by including a condition in all license terms extensions that allows the additional operating authority to be cancelled without hearing. Thus, we found above that grant of the Galaxy 3H proposal is consistent with the public interest because it allows the realization of the efficiencies gained by the regular assignment of a state-of-the-art satellite over the temporary assignment of an obsolete satellite operating past the end of its license term.

SBS-6

11. SBS-6 now operates at 99° W.L. on a temporary basis, although it is assigned to 72° W.L. STLC proposes to operate its Ku-band SBS-6 satellite temporarily at 95° W.L. starting in February 1993 when Galaxy 4H becomes operational at 99° W.L. and until Galaxy 3H is successfully launched into 95° W.L. in January 1994. Comsat's Ku-band SBS-3 satellite has been operating at 95° W.L. since its launch in November 1982. Comsat filed a petition to deny STLC's application, stating that it intends to use the Comsat maneuver to keep SBS-3 operational beyond its ten-year license term.²⁰

12. As stated above, this Bureau has found that it is in the public interest to allow operators to extend the useful life of older satellites until new state-of-the-art satellites are ready to be launched. This allows the operator of the older satellite to serve customers and to receive a return on its investment for as long as possible while not impeding the availability of new technologies and services.²¹ In this order, HCG is authorized to implement a new state-of-the-art satellite at 950 W.L. in early 1994, when Galaxy 3H is launched. STLC's request to locate SBS-6 at 950 W.L. on a temporary basis beginning in February 1993 would effectively require the decommissioning of SBS-3 one year before Galaxy 3H is operational. We will not permit HCG to "bootstrap" itself into an earlier stake in the 950 W.L. orbital location by giving it a regular assignment beginning in 1994. While SBS-6 may be technically superior to the older SBS-3 satellite, SBS-6 is not assigned to 95° W.L.

Rather, it is assigned to 72° W.L., where it may begin providing service immediately. We do not believe that any public interest benefits to be gained from permitting HCG to occupy 95° W.L. for eleven months would outweigh the costs to Comsat and its customers in requiring SBS-3 to vacate 95° W.L. eleven months before it would otherwise be necessary. Therefore, until Galaxy 3H is launched in January 1994, we see no reason for SBS-3 to be decommissioned or moved.²²

Galaxy 6

13. HCG proposes to operate Galaxy 6 at 103° W.L. for an interim period between the time Galaxy 4H replaces it at 99° W.L. in early 1993 and the end-of-life of Galaxy 2 in December 1993. HCG then requests authority to move Galaxy 6 into Galaxy 2's 74° W.L. location, where it will serve as Galaxy 2's replacement.

14. The 1030 W.L. location is within that portion of the orbital arc that is included in a Canadian, Mexican and United States trilateral arrangement reached in 1988.²³ Under the provisions of the arrangement, Canada is permitted to occupy the 104.5° W.L. location with a C-band satellite until the 1994 time frame, when GTE Spacenet launches a hybrid satellite into 1030 W.L. Thus, we will not approve the interim C-band assignment of 1030 W.L. to Galaxy 6 without the express consent of the Canadian administration. This consent is found nowhere in the record. Moreover, we will not initiate renegotiations of the trilateral arrangement absent compelling public interest reasons to do so. HCG's desire to provide service from 1030 W.L. for less than one year does not warrant reopening the complex negotiations that preceded the signing of the 1988 arrangement. Therefore, we dismiss without prejudice the HCG application requesting an interim orbital assignment for Galaxy 6 of 1030 W.L.

15. No party opposes HCG's proposal to replace Galaxy 2 with Galaxy 6 at 74° W.L. and therefore, we grant the application. In the interim period between the time Galaxy 4H replaces Galaxy 6 at 99° W.L. and the end-of-life of Galaxy 2, HCG must co-locate Galaxy 6 with another one of its C-band satellites.²⁴

SBS-4

16. STLC proposes to operate its Ku-band SBS-4 satellite at 77° W.L. through the end of its life in August 1994. SBS-4 has been operating at 91° W.L. since its launch in 1984. It will be replaced in the next few months, however, with Galaxy 7-H. STLC's request to move SBS-4 to 77° W.L. upon Galaxy 7-H's launch is unopposed. The 77° W.L. location, however, has not been coordinated internationally. Accordingly, while we grant STLC's request for

^{(76&}lt;sup>0</sup> W.L. reassigned from Safecom Partnership to National Exchange Satellite, Inc. after expiration of Safecom Partnership's licenses) and 5 FCC Rcd 179, para. 26 (85⁰ W.L. reassigned from American Telephone & Telegraph Company (AT&T) to Hughes Communications Galaxy, Inc. after expiration of AT&T's license).

See note 9, supra.
 See Astroline Communications Company Limited Partnership v. FCC, 857 F.2d 1556, 1561 (D.C. Cir. 1988); Arnold L. Chase, 5 FCC Rcd 1642, 1644 (1990).

See para. 8, supra.

Comsat also reiterates its claim that a hearing is necessary before STLC's request can be granted. See discussion at paras.

^{6-10,} supra.

See para. 7, supra.

²² GE Americom's arguments regarding STLC's ability to leverage regular authority to operate at this location from an interim authorization are rendered moot by this decision.

²³ See letter from Chief, Common Carrier Bureau, FCC to Senior Assistant Deputy Minister, Government of Canada Department of Communications (August 19, 1988).

²⁴ For example, HCG could co-locate Galaxy 6 with Galaxy 2 at 74⁰ W.L. Also, because HCG's Galaxy 2-R will not be built, we render the authorization for Galaxy 2-R, Hughes Communications Galaxy, Inc., 3 FCC Rcd 6989 (1988), null and void.

reassignment, we will permit operation of SBS-4 at 77° W.L. on a non-interference basis only until such time as coordination is completed.²⁵

IV. ORDERING CLAUSES

- 17. Accordingly, IT IS ORDERED that Application File Nos. 5 & 6-DSS-MP/ML-92 ARE GRANTED and Hughes Communications Galaxy, Inc. IS AUTHORIZED to consolidate its Ku-band Galaxy B-R satellite at 131⁰ W.L. and its C-band Galaxy 3-R satellite at 95⁰ W.L. into the hybrid Galaxy 3-H at 95⁰ W.L. as proposed in its application.
- 18. IT IS FURTHER ORDERED that the Ku-band portion of the 1310 W.L. orbital location is available for reassignment.
- 19. IT IS FURTHER ORDERED that Application File No. 16-DSS-ML-92 requesting authority to locate Galaxy 6 at 1030 W.L. temporarily IS DISMISSED WITHOUT PREJUDICE.
- 20. IT IS FURTHER ORDERED that Application File No. 17-DSS-ML-92 IS GRANTED and Hughes Communications Galaxy, Inc. IS AUTHORIZED to use Galaxy 6 to replace Galaxy 2 at 74° W.L. at the end of Galaxy 2's useful life.
- 21. IT IS FURTHER ORDERED that the authorization for Galaxy 2-R, Hughes Communications Galaxy, Inc., 3 FCC Rcd 6989 (1988), is NULL and VOID.
- 22. IT IS FURTHER ORDERED that Application File No. 18-DSS-ML-92 IS CONDITIONALLY GRANTED and Satellite Transponder Leasing Corporation IS AUTHORIZED to operate SBS-4 at 77° W.L. on a non-interference basis until international coordination is completed. The period of operation shall start when Galaxy 6H is launched and terminate at the expiration of SBS-4's license term.
- 23. IT IS FURTHER ORDERED that Application File No. 19-DSS-ML-92 requesting an interim orbital assignment of SBS-6 to 95° W.L. IS DENIED.
- 24. IT IS FURTHER ORDERED that the Petition to Deny filed by Communications Satellite Corporation IS DENIED as it pertains to the grant of Application File Nos. 5/6-DSS-ML-92 and IS GRANTED as it pertains to the denial of Application File No. 19-DSS-ML-92.
- 25. IT IS FURTHER ORDERED that this Order and Authorization will be effective upon adoption.

FEDERAL COMMUNICATIONS COMMISSION

Cheryl A. Tritt Chief, Common Carrier Bureau

²⁵ See Section 25.111(b) of the Commission's rules, 47 C.F.R. § 25.111(b).