

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

\_\_\_\_\_) )  
In the Matter of the Application of ) )  
HUGHES COMMUNICATIONS ) )  
GALAXY, INC. ) )  
For Authority to Construct, ) )  
Launch and Operate ) )  
GALAXY/SPACEWAY,™ a ) )  
Global System of Geostationary Ka ) )  
band Fixed and Ku band Broadcast ) )  
Communications Satellites ) )  
\_\_\_\_\_)

File No.:

APPLICATION

Hughes Communications Galaxy, Inc. ("Hughes"), pursuant to Sections 308, 309 and 319 of the Communications Act of 1934, as amended, hereby applies for authority to construct, launch and operate a domestic fixed-service communications satellite system that will function in the Ka band and/or the BSS Ku band at 67° W.L. Certain information contained in HCG's System Amendment, Application for Authority to Construct, Launch and Operate GALAXY/SPACEWAY,™ Global System of Geostationary Ka band Fixed and Ku band Broadcast Communications Satellites ("GALAXY/SPACEWAY Application™"), to which this is attached, is incorporated herein by reference.

I. REQUIRED SATELLITE INFORMATION

A. Applicant

Hughes Communications Galaxy, Inc.  
1990 Grand Avenue  
El Segundo, California 90245  
213-607-4400  
Attention: Carl A. Brown, Senior Vice President

B. Correspondence

Name, address and telephone number of the persons to whom inquiries or correspondence should be directed:

Gary M. Epstein  
John P. Janka  
James H. Barker  
Latham & Watkins  
1001 Pennsylvania Avenue, N.W.  
Suite 1300  
Washington, D.C. 20004  
202-637-2200

C. Frequencies, Polarization and Emission Parameters

The Satellite System at 67° W.L. will perform communications in the 17.7 GHz to 20.2 GHz (downlink) and 27.5.0 GHz to 30.0 GHz (uplink) Ka FSS frequency bands; the 12.2 GHz to 12.7 GHz (downlink) and 17.3 GHz to 17.8 GHz (uplink) Ku BSS bands; and will perform tracking, telemetry, and control ("TT&C") functions in the bands described in Figures D-1 and D-3 of the GALAXY SPACEWAY™ Application.

Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.

D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 67° West Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY™ Application at Item G.

E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY™ Application at Item D.

F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 67° W.L. is contained in the GALAXY SPACEWAY™ Application at Item D, including data regarding accuracy of orbital parameters and antenna direction, estimated lifetime, attitude stabilization and station-keeping, and satellite subsystems (including the electrical power system).

G. Emission Limitations

Control of spurious emissions of the spacecraft is discussed in the GALAXY SPACEWAY™ Application at Item D.

H. Schedule for Construction, Launch and Placement into Service

A schedule for constructing, launching and placing the spacecraft into operation is provided in the GALAXY SPACEWAY™ Application at Item H.

II. WAIVER

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of

the previous use of the same, whether by license or otherwise, and requests construction, launch, and operating authority in accordance with this application.

III. ADDITIONAL INFORMATION REGARDING PROPOSED SATELLITE SYSTEM

The GALAXY SPACEWAY™ Application sets forth the public interest considerations and the financial, legal and technical qualifications of Hughes and other information pertinent to this application, and is incorporated herein by reference.

IV. CERTIFICATIONS

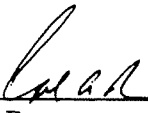
The undersigned certifies individually and for Hughes that the statements made in this application are true, complete and correct to the best of his knowledge and belief, and are made in good faith.

Hughes further certifies that neither Hughes, nor its parent company, Hughes Communications, Inc. ("HCI"), nor any of the officers or directors of Hughes or HCI, is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 835a.

HCG requests that the Commission grant this application.

Respectfully submitted,

HUGHES COMMUNICATIONS GALAXY, INC.

By:   
Carl A. Brown  
Senior Vice President

Date: September 29, 1995

**CERTIFICATION OF PERSON RESPONSIBLE  
FOR PREPARING ENGINEERING  
INFORMATION SUBMITTED IN THIS APPLICATION**

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this Application, that I am familiar with Part 25 of the Commission's Rules, that I have either prepared or reviewed the engineering information submitted in this Application, and that it is complete and accurate to the best of my knowledge.

On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

By:   
Bernard F. Vecerek, Ph.D.  
Director  
Galaxy Satellite Services  
Hughes Communications Galaxy, Inc.

Date: September 29, 1995

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File No.:

APPLICATION

Hughes Communications Galaxy, Inc. ("Hughes"), pursuant to Sections 308, 309 and 319 of the Communications Act of 1934, as amended, hereby applies for authority to construct, launch and operate a domestic fixed-service communications satellite system that will function in the Ka band and/or the BSS Ku band at 49° W.L. Certain information contained in HCG's System Amendment, Application for Authority to Construct, Launch and Operate GALAXY/SPACEWAY,™ Global System of Geostationary Ka band Fixed and Ku band Broadcast Communications Satellites ("GALAXY/SPACEWAY Application™"), to which this is attached, is incorporated herein by reference.

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James H. Barker  
Latham & Watkins  
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Washington, D.C. 20004  
202-637-2200

C. Frequencies, Polarization and Emission Parameters

The Satellite System at 49° W.L. will perform communications in the 17.7 GHz to 20.2 GHz (downlink) and 27.5.0 GHz to 30.0 GHz (uplink) Ka FSS frequency bands; the 12.2 GHz to 12.7 GHz (downlink) and 17.3 GHz to 17.8 GHz (uplink) Ku BSS bands; and will perform tracking, telemetry, and control ("TT&C") functions in the bands described in Figures D-1 and D-3 of the GALAXY SPACEWAY™ Application.

Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.



D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 49° West Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY™ Application at Item G.

E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY™ Application at Item D.

F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 49° W.L. is contained in the GALAXY SPACEWAY™ Application at Item D, including data regarding accuracy of orbital parameters and antenna direction, estimated lifetime, attitude stabilization and station-keeping, and satellite subsystems (including the electrical power system).

G. Emission Limitations

Control of spurious emissions of the spacecraft is discussed in the GALAXY SPACEWAY™ Application at Item D.

H. Schedule for Construction, Launch and Placement into Service

A schedule for constructing, launching and placing the spacecraft into operation is provided in the GALAXY SPACEWAY™ Application at Item H.

II. WAIVER

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of

the previous use of the same, whether by license or otherwise, and requests construction, launch, and operating authority in accordance with this application.

III. ADDITIONAL INFORMATION REGARDING PROPOSED SATELLITE SYSTEM

The GALAXY SPACEWAY™ Application sets forth the public interest considerations and the financial, legal and technical qualifications of Hughes and other information pertinent to this application, and is incorporated herein by reference.

IV. CERTIFICATIONS

The undersigned certifies individually and for Hughes that the statements made in this application are true, complete and correct to the best of his knowledge and belief, and are made in good faith.

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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

By: *Bernard Vecerek*  
Bernard F. Vecerek, Ph.D.  
Director  
Galaxy Satellite Services  
Hughes Communications Galaxy, Inc.

Date: September 29, 1995

Before the  
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Washington, D.C. 20525

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HUGHES COMMUNICATIONS )  
GALAXY, INC. )

) File No.:

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Communications Satellites )  
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Washington, D.C. 20004  
202-637-2200

C. Frequencies, Polarization and Emission Parameters

The Satellite System at 25° E.L. will perform communications in the 17.7 GHz to 20.2 GHz (downlink) and 27.5 GHz to 30.0 GHz (uplink) frequency bands, and will perform tracking, telemetry, and control ("TT&C") functions in the bands described in Figure D-1 of the GALAXY SPACEWAY™ Application.

Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.

D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 25° East Longitude for this system. Factors supporting this requested orbital

position and the range of adequate locations are discussed in the GALAXY SPACEWAY™ Application at Item G.

E. Predicted Coverage Contours for Each Antenna Beam

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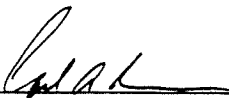
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Respectfully submitted,

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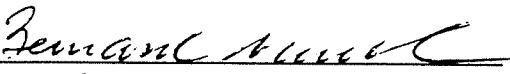
By:   
Carl A. Brown  
Senior Vice President

Date: September 29, 1995

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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

By:   
Bernard F. Vecerek, Ph.D.  
Director  
Galaxy Satellite Services  
Hughes Communications Galaxy, Inc.

Date: September 29, 1995

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20536

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In the Matter of the Application of ) )  
HUGHES COMMUNICATIONS ) )  
GALAXY, INC. ) )  
For Authority to Construct, ) )  
Launch and Operate ) )  
GALAXY/SPACEWAY,™ a ) )  
Global System of Geostationary Ka ) )  
band Fixed and Ku band Broadcast ) )  
Communications Satellites ) )  
\_\_\_\_\_)

File No.:

APPLICATION

Hughes Communications Galaxy, Inc. ("Hughes"), pursuant to Sections 308, 309 and 319 of the Communications Act of 1934, as amended, hereby applies for authority to construct, launch and operate a domestic fixed-service communications satellite system that will function in the Ka band and/or the BSS Ku band at 36° E.L. Certain information contained in HCG's System Amendment, Application for Authority to Construct, Launch and Operate GALAXY/SPACEWAY,™ Global System of Geostationary Ka band Fixed and Ku band Broadcast Communications Satellites ("GALAXY/SPACEWAY Application™"), to which this is attached, is incorporated herein by reference.

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A. Applicant

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John P. Janka  
James H. Barker  
Latham & Watkins  
1001 Pennsylvania Avenue, N.W.  
Suite 1300  
Washington, D.C. 20004  
202-637-2200

C. Frequencies, Polarization and Emission Parameters

The Satellite System at 36° E.L. will perform communications in the 17.7 GHz to 20.2 GHz (downlink) and 27.5.0 GHz to 30.0 GHz (uplink) Ka FSS frequency bands; the 11.7 GHz to 12.5 GHz (downlink) and 17.3 GHz to 18.1 GHz (downlink) Ku BSS bands; and will perform tracking, telemetry, and control ("TT&C") functions in the bands described in Figures D-1 and D-2 of the GALAXY SPACEWAY™ Application.

Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.

D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 36° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY™ Application at Item G.

E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY™ Application at Item D.

F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 36° E.L. is contained in the GALAXY SPACEWAY™ Application at Item D, including data regarding accuracy of orbital parameters and antenna direction, estimated lifetime, attitude stabilization and station-keeping, and satellite subsystems (including the electrical power system).

G. Emission Limitations

Control of spurious emissions of the spacecraft is discussed in the GALAXY SPACEWAY™ Application at Item D.

H. Schedule for Construction, Launch and Placement into Service

A schedule for constructing, launching and placing the spacecraft into operation is provided in the GALAXY SPACEWAY™ Application at Item H.

II. WAIVER

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of

the previous use of the same, whether by license or otherwise, and requests construction, launch, and operating authority in accordance with this application.

III. ADDITIONAL INFORMATION REGARDING PROPOSED SATELLITE SYSTEM

The GALAXY SPACEWAY™ Application sets forth the public interest considerations and the financial, legal and technical qualifications of Hughes and other information pertinent to this application, and is incorporated herein by reference.

IV. CERTIFICATIONS

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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

By: *Bernard Vecerek*  
Bernard F. Vecerek, Ph.D.  
Director  
Galaxy Satellite Services  
Hughes Communications Galaxy, Inc.

Date: September 29, 1995



Before the  
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Washington, D.C. 20541

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In the Matter of the Application of )  
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HUGHES COMMUNICATIONS )  
GALAXY, INC. )

File No.:

For Authority to Construct, )  
Launch and Operate )  
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Global System of Geostationary Ka )  
band Fixed and Ku band Broadcast )  
Communications Satellites )

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APPLICATION

Hughes Communications Galaxy, Inc. ("Hughes"), pursuant to Sections 308, 309 and 319 of the Communications Act of 1934, as amended, hereby applies for authority to construct, launch and operate a domestic fixed-service communications satellite system that will function in the Ka band and/or the BSS Ku band at 41° E.L. Certain information contained in HCG's System Amendment, Application for Authority to Construct, Launch and Operate GALAXY/SPACEWAY,<sup>TM</sup> Global System of Geostationary Ka band Fixed and Ku band Broadcast Communications Satellites ("GALAXY/SPACEWAY Application<sup>TM</sup>"), to which this is attached, is incorporated herein by reference.

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C. Frequencies, Polarization and Emission Parameters

The Satellite System at 41° E.L. will perform communications in the 17.7 GHz to 20.2 GHz (downlink) and 27.5 GHz to 30.0 GHz (uplink) Ka FSS frequency bands; the 11.7 GHz to 12.5 GHz (downlink) and the 17.3 GHz to 18.1 GHz (uplink) Ku BSS frequency bands; and will perform tracking, telemetry, and control ("TT&C") functions in the bands described in Figures D-1 and D-2 of the GALAXY SPACEWAY™ Application.

Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.

D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 41° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY™ Application at Item G.

E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY™ Application at Item D.

F. Physical Characteristics of the Space Station

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G. Emission Limitations

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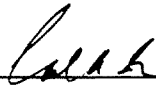
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The GALAXY SPACEWAY™ Application sets forth the public interest considerations and the financial, legal and technical qualifications of Hughes and other information pertinent to this application, and is incorporated herein by reference.

IV. CERTIFICATIONS


The undersigned certifies individually and for Hughes that the statements made in this application are true, complete and correct to the best of his knowledge and belief, and are made in good faith.

Hughes further certifies that neither Hughes, nor its parent company, Hughes Communications, Inc. ("HCI"), nor any of the officers or directors of Hughes or HCI, is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 835a.

HCG requests that the Commission grant this application.

Respectfully submitted,

HUGHES COMMUNICATIONS GALAXY, INC.

By:  \_\_\_\_\_

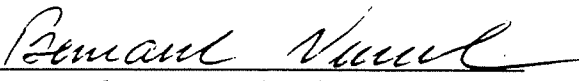
Carl A. Brown  
Senior Vice President

Date: September 29, 1995

**CERTIFICATION OF PERSON RESPONSIBLE  
FOR PREPARING ENGINEERING  
INFORMATION SUBMITTED IN THIS APPLICATION**

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this Application, that I am familiar with Part 25 of the Commission's Rules, that I have either prepared or reviewed the engineering information submitted in this Application, and that it is complete and accurate to the best of my knowledge.

On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

By:   
Bernard F. Vecerek, Ph.D.  
Director  
Galaxy Satellite Services  
Hughes Communications Galaxy, Inc.

Date: September 29, 1995

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

\_\_\_\_\_)  
In the Matter of the Application of )  
 )  
HUGHES COMMUNICATIONS )  
GALAXY, INC. )  
 ) File No. :  
For Authority to Construct, )  
Launch and Operate )  
GALAXY/SPACEWAY,™ a )  
Global System of Geostationary Ka )  
band Fixed and Ku band Broadcast )  
Communications Satellites )  
\_\_\_\_\_)

APPLICATION

Hughes Communications Galaxy, Inc. ("Hughes"), pursuant to Sections 308, 309 and 319 of the Communications Act of 1934, as amended, hereby applies for authority to construct, launch and operate a domestic fixed-service communications satellite system that will function in the Ka band and/or the BSS Ku band at 54° E.L. Certain information contained in HCG's System Amendment, Application for Authority to Construct, Launch and Operate GALAXY/SPACEWAY,™ Global System of Geostationary Ka band Fixed and Ku band Broadcast Communications Satellites ("GALAXY/SPACEWAY Application™"), to which this is attached, is incorporated herein by reference.

I. REQUIRED SATELLITE INFORMATION

A. Applicant

Hughes Communications Galaxy, Inc.  
1990 Grand Avenue  
El Segundo, California 90245  
213-607-4400  
Attention: Carl A. Brown, Senior Vice President

B. Correspondence

Name, address and telephone number of the persons to whom inquiries or correspondence should be directed:

Gary M. Epstein  
John P. Janka  
James H. Barker  
Latham & Watkins  
1001 Pennsylvania Avenue, N.W.  
Suite 1300  
Washington, D.C. 20004  
202-637-2200

C. Frequencies, Polarization and Emission Parameters

The Satellite System at 54° E.L. will perform communications in the 17.7 GHz to 20.2 GHz (downlink) and 27.5 GHz to 30.0 GHz (uplink) Ka FSS frequency bands; the 11.7 GHz to 12.5 GHz (downlink) and the 17.3 GHz to 18.1 GHz (uplink) Ku BSS frequency bands, and will perform tracking, telemetry, and control ("TT&C") functions in the bands described in Figures D-1 and D-2 of the GALAXY SPACEWAY™ Application.

Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.

D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 54° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY™ Application at Item G.

E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY™ Application at Item D.

F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 54° E.L. is contained in the GALAXY SPACEWAY™ Application at Item D, including data regarding accuracy of orbital parameters and antenna direction, estimated lifetime, attitude stabilization and station-keeping, and satellite subsystems (including the electrical power system).

G. Emission Limitations

Control of spurious emissions of the spacecraft is discussed in the GALAXY SPACEWAY™ Application at Item D.

H. Schedule for Construction, Launch and Placement into Service

A schedule for constructing, launching and placing the spacecraft into operation is provided in the GALAXY SPACEWAY™ Application at Item H.

II. WAIVER

The Applicant waives any claim to the sue of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of

the previous use of the same, whether by license or otherwise, and requests construction, launch, and operating authority in accordance with this application.

III. ADDITIONAL INFORMATION REGARDING PROPOSED SATELLITE SYSTEM

The GALAXY SPACEWAY™ Application sets forth the public interest considerations and the financial, legal and technical qualifications of Hughes and other information pertinent to this application, and is incorporated herein by reference.

IV. CERTIFICATIONS

The undersigned certifies individually and for Hughes that the statements made in this application are true, complete and correct to the best of his knowledge and belief, and are made in good faith.

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HCG requests that the Commission grant this application.

Respectfully submitted,

HUGHES COMMUNICATIONS GALAXY, INC.

By: 

Carl A. Brown  
Senior Vice President

Date: September 29, 1995

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**FOR PREPARING ENGINEERING**  
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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

By: *Bernard Vecerek*  
Bernard F. Vecerek, Ph.D.  
Director  
Galaxy Satellite Services  
Hughes Communications Galaxy, Inc.

Date: September 29, 1995

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\_\_\_\_\_)

File No.:

APPLICATION

Hughes Communications Galaxy, Inc. ("Hughes"), pursuant to Sections 308, 309 and 319 of the Communications Act of 1934, as amended, hereby applies for authority to construct, launch and operate a domestic fixed-service communications satellite system that will function in the Ka band and/or the BSS Ku band at 101° E.L. Certain information contained in HCG's System Amendment, Application for Authority to Construct, Launch and Operate GALAXY/SPACEWAY,™ Global System of Geostationary Ka band Fixed and Ku band Broadcast Communications Satellites ("GALAXY/SPACEWAY Application™"), to which this is attached, is incorporated herein by reference.

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Detailed technical information regarding satellite transmission and performance characteristics is contained in the GALAXY SPACEWAY™ Application at Item D.