#### 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 101° 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 12.2 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 Figure D-1 of the GALAXY SPACEWAY<sup>TM</sup> Application.

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

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 101° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY<sup>TM</sup> Application at Item G.

#### E. <u>Predicted Coverage Contours for Each Antenna Beam</u>

Coverage data and contours are provided in the GALAXY SPACEWAY  $^{\text{TM}}$  Application at Item D.

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 101° E.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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. <u>CERTIFICATIONS</u>

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: Lual

Carl A. Brown Senior Vice President

### 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: <u>Bernard Neuell</u> Bernard F. Vecerek, Ph.D.

Director

Galaxy Satellite Services

Hughes Communications Galaxy, Inc.

## 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

#### <u>APPLICATION</u>

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 110° 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.

#### 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. <u>Correspondence</u>

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 110° 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<sup>TM</sup> Application.

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

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 110° East Longitude for this system. Factors supporting this requested orbital

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

#### E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY  $^{\text{TM}}$  Application at Item D.

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 110° E.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> Application at Item H.

#### II. <u>WAIVER</u>

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<sup>TM</sup> 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. <u>CERTIFICATIONS</u>

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: Walk

Carl A. Brown Senior Vice President

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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

Bernard F. Vecerek, Ph.D.

Director

Galaxy Satellite Services

Hughes Communications Galaxy, Inc.

# 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.:

#### <u>APPLICATION</u>

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 125° 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. <u>Correspondence</u>

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. <u>Frequencies, Polarization and Emission Parameters</u>

The Satellite System at 125° 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 12.2 GHz (downlink) and 17.3 GHz to 18.1 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-4 of the GALAXY SPACEWAY<sup>TM</sup> Application.

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

HCG requests that the Commission grant this application.

Respectfully submitted,

HUGHES COMMUNICATIONS GALAXY, INC.

Carl A. Brown

Senior Vice President

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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

Bernard F. Vecerek, Ph.D.

Director

Galaxy Satellite Services

Hughes Communications Galaxy, Inc.

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 125° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY<sup>TM</sup> Application at Item G.

#### E. Predicted Coverage Contours for Each Antenna Beam

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

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 125° E.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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. <u>CERTIFICATIONS</u>

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.

## 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 149° 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. <u>Correspondence</u>

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 149° 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 12.2 GHz (downlink) and 17.3 GHz to 18.1 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-4 of the GALAXY SPACEWAY<sup>TM</sup> Application.

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

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 149° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY<sup>TM</sup> Application at Item G.

#### E. Predicted Coverage Contours for Each Antenna Beam

Coverage data and contours are provided in the GALAXY SPACEWAY  $^{\text{TM}}$  Application at Item D.

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 149° E.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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. <u>CERTIFICATIONS</u>

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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

### 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: Beneal Nucle

Bernard F. Vecerek, Ph.D.

Director

Galaxy Satellite Services

Hughes Communications Galaxy, Inc.

# 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 164° 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. <u>Correspondence</u>

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 164° 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 12.2 GHz (downlink) and 17.3 GHz to 18.1 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-4 of the GALAXY SPACEWAY<sup>TM</sup> Application.

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

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 164° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY<sup>TM</sup> Application at Item G.

### E. <u>Predicted Coverage Contours for Each Antenna Beam</u>

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

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 164° E.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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. <u>CERTIFICATIONS</u>

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

# 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.

# 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 173° 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

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James H. Barker
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202-637-2200

#### C. Frequencies, Polarization and Emission Parameters

The Satellite System at 173° 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 12.2 GHz (downlink) and 17.3 GHz to 18.1 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-4 of the GALAXY SPACEWAY<sup>TM</sup> Application.

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

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 173° East Longitude for this system. Factors supporting this requested orbital position and the range of adequate locations are discussed in the GALAXY SPACEWAY<sup>TM</sup> Application at Item G.

# E. Predicted Coverage Contours for Each Antenna Beam Coverage data and contours are provided in the GALAXY SPACEWAY<sup>TM</sup>

Application at Item D.

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 173° E.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> Application at Item H.

#### II. <u>WAIVER</u>

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HCG requests that the Commission grant this application.

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By: Wah

Carl A. Brown

Senior Vice President

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On behalf of HUGHES COMMUNICATIONS GALAXY, INC.

Bernard F. Vecerek, Ph.D.

Director

Galaxy Satellite Services

Hughes Communications Galaxy, Inc.

## 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,
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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 101° 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. <u>Correspondence</u>

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 101° W.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<sup>TM</sup> Application.

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

#### D. Orbital Location

Hughes requests that the Commission reserve the geosynchronous orbital position at 101° West Longitude for this system. Factors supporting this requested orbital

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

#### E. <u>Predicted Coverage Contours for Each Antenna Beam</u>

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

#### F. Physical Characteristics of the Space Station

A detailed description of the spacecraft to be utilized at 101° W.L. is contained in the GALAXY SPACEWAY<sup>TM</sup> 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. <u>Emission Limitations</u>

Control of spurious emissions of the spacecraft is discussed in the GALAXY SPACEWAY<sup>TM</sup> 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<sup>TM</sup> 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. <u>CERTIFICATIONS</u>

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

Date: September 29, 1995

Senior Vice President

# 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.

Bernard F. Vecerek, Ph.D.

Director

Galaxy Satellite Services

Hughes Communications Galaxy, Inc.

174-SAT-P/LA-95 through 181-SAT-P/LA-95

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#### BY MESSENGER

Federal Communications Commission Satellite and Radiocommunication Division P.O. Box 358115 Pittsburgh, PA 15251-5160

System Amendment to Application of Hughes

Communications Galaxy, Inc.

FCC File Nos. 3/4-DSS-P/LA-94, CSS-94-021 through

CSS-94-025.

Ladies and Gentlemen:

Enclosed on behalf of Hughes Communications Galaxy, Inc. are an original and nine copies of an application for the GALAXY/SPACEWAY satellite system. GALAXY/SPACEWAY is an integrated, global platform that utilizes both Ka band FSS and Ku band BSS frequencies. In order to ensure both compliance with the existing ITU BSS plans and seamless global service capabilities, GALAXY/SPACEWAY will use a total of fifteen orbital locations. Ka band FSS payloads are included at each of the fifteen locations. Ku band BSS payloads are included at eleven orbital locations. This hybrid satellite system consists of a total of twenty satellites.

The GALAXY/SPACEWAY system is a natural evolution of the original SPACEWAY concept, which Hughes proposed almost two years ago. In addition to the high capacity, interactive services that always have been the core of the SPACEWAY concept, the system now offers the ability to provide direct-to-home and other forms of video distribution on a global basis. GALAXY/SPACEWAY users will be able to use a single 26" diameter

#### LATHAM & WATKINS

Federal Communications Commission September 29, 1995 Page 3

days of receiving notification that an additional payment is due.

GALAXY/SPACEWAY is an innovative system that will advance the state of the art in satellite system design and provide much-needed services virtually anywhere in the world. Hughes respectfully requests prompt processing and grant of this application.

Sincerely yours,

Gary M. Epstein John P Janka James H. Barker

#### System Amendment

#### Before the

## FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

#### 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

September 29, 1995

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