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March 18, 1996

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MAR 19 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

By Messenger

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

Re: File Nos. 3-DSS-P/LA-94; 4-DSS-P/LA-94; 174-181-SAT-P/LA-95;
CC Docket No. 92-297/RM-7872, RM-7722; Ex Parte Presentation

Dear Mr. Caton:

Pursuant to Section 1.1204(b)(7) of the Commission's rules, on behalf of Hughes Communications Galaxy, Inc., the enclosed materials were prepared and delivered on March 11, 1996 to Scott Blake Harris, Chief, International Bureau.

An original and four copies of this letter are enclosed. The Commission's Public Notice DA 95-663, released April 5, 1995, waived the requirement that these materials be served on the parties to the restricted adjudicative proceeding involving applications in the 27.5-30.0 GHz part of the Ka band. A copy of this letter is being provided to Mr. Harris.

Respectfully submitted,

John P. Janka

Enclosures

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March 11, 1996

COST IMPACT OF 28 GHz BAND PLANS ON GSO FSS SATELLITE SERVICES

28 GHz IS ESSENTIAL TO THE SATELLITE INDUSTRY

28 GHz is the next available expansion band for the GSO FSS industry

only way to provide universal, low cost access to the GII

nature of the band supports ultra small (26") dishes that are not feasible in the other frequency bands available today

28 GHz was allocated in 1971 in anticipation that other satellite bands would become congested

supports extension of existing services in the crowded C and Ku bands

GSOs have solved all other 28 GHz band plan problems Commission has asked them to solve (NGSO MSS feeder link sharing problem and other NGSO problems)

should not be saddled with solving new LMDS return link problem by constraining next generation GSO systems

OPTIONS 4 AND 4 PRIME PROVIDE INSUFFICIENT CAPACITY FOR A VIABLE BROADBAND, DIRECT TO HOME SATELLITE SERVICE

All services bear costs under any proposed band plan

no one gets precisely what it wants

equipment redesign costs are short term costs and in many cases are minimal

Unlike Option 5, Option 4 and 4 Prime also reduce system capacity

allocation decisions that limit capacity are permanent and practically irreversible

OPTIONS 4 AND 4 PRIME IMPOSE SIGNIFICANT COSTS

US GSO satellite service will be delayed or foregone

unique US satellite design required for Spaceway under Options 4 and 4 Prime

different from standard design to be used around the world

redesign of Spaceway only in the U.S. sets program back technologically at least one year

lost market opportunities

delayed competition with LMDS

changes required to permit U.S. service means initial roll out likely to be in foreign markets

Significant system redesign cost

Spaceway design builds on existing military and mobile satellite technology

10's of millions to change current design and develop new technology

Service capabilities severely constrained

Options 4 and 4 Prime reduce Spaceway subscriber capacity by 20% to 12%

breaking spectrum up into segments that are not divisible by 125 MHz results in greater actual spectrum loss

efficient spectrum reuse and low cost receive equipment require 8 different beams over U.S. with equal amounts of contiguous spectrum in each beam

Option 4 allows use of only 880 MHz of the nominal 925 MHz GSO FSS allocation

Option 4 Prime allows use of only 800 MHz of the nominal 875 MHz GSO FSS allocation

Option 4 Prime is significantly worse than Option 4

Option 4 Prime renders 135 MHz unusable by mass market direct to home satellite system

gateway limitation means additional spectrum is inaccessible where it is needed most

urban markets

homes and small businesses

Reduced capacity adversely impacts ability to provide wide range of broadband direct-to-home service

interactive, broadband services to mass market requires sufficient spectrum to support all users

unable to connect all calls on demand with inadequate capacity

fewer subscribers can be supported

Increased costs to consumers required

Service costs increase

fixed system costs increase because of unique U.S. redesign

satellite capacity reduced by 20-12%

supportable subscriber base smaller

Subscriber equipment costs increase

lower production volume for receivers

Capacity cutback threatens viability of system

system costs increase with redesign

reduces return on investment by at least 20-12%

"GATEWAY" PROPOSAL (OPTION 4 PRIME) IS TECHNOLOGICALLY REGRESSIVE

gateway limitation was rejected by Commission last summer as infeasible sharing solution for NGSO MSS feeder links and should not be revisited now

arcane gateway architecture would be perpetuated in the only satellite band that supports interactive services to the home over 26 inch dishes

architecture limitation works for only one of the many proposed 28 GHz GSO systems

system specific limitation slants use of spectrum to one applicant

inhibits deployment of new technologies

CONCLUSION:

Loss of capacity, delay, and increased costs under Option 4 and 4 Prime mean that a viable, interactive broadband service delivered to the home by satellite may not be feasible in the U.S.

Existing GSO operators (Hughes, AT&T, GE and Orion) and Loral unanimously oppose Options 4 and 4 Prime and agree that Option 5 is the viable solution for the provision of competitive, universal, broadband 28 GHz satellite service in the US