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

In re Amendment of the Commission's Regulatory Policies to Allow Non-U.S.-Licensed Space Stations to Provide Domestic and International Satellite Service in the United States	IB Docket No. 96-111
and	
Amendment of Section 25.131 of the Commission's Rules and Regulations to Eliminate the Licensing Requirement for Certain International Receive-Only Earth Stations	CC Docket No. 93-23 RM-7931
and	
COMMUNICATIONS SATELLITE CORPORATION Request for Waiver of Section 25.131(j)(1) of the Commission's Rules As It Applies to Services Provided via the Intelsat K Satellite	File No. ISP 92-007

Comments of TELEDESIC CORPORATION

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Comments of Teledesic Corporation

Teledesic Corporation submits these comments in response to the Commission's Notice of Proposed Rulemaking in this proceeding, released May 14, 1996 (the "*Notice*"). Teledesic supports the Commission's proposal to give satellite communications users in the United States expanded access to satellites and satellite systems that are coordinated internationally by other countries. Teledesic offers these comments so that the general framework proposed by the Commission might be refined to better reflect the special characteristics of the emerging market for interactive broadband satellite services.

I. THE COMMISSION'S PROPOSAL REPRESENTS AN IMPORTANT STEP TOWARD GREATER MARKET ACCESS FOR ALL SATELLITE SERVICES

The greatest strength of the Commission's proposal is its recognition that users of satellite services in the United States and other countries stand to benefit from greater access to all satellite systems, wherever licensed. There are many markets around the world in which regulators have not yet agreed to let U.S. satellite companies operate. Accordingly, Teledesic agrees on the need for measures to ensure that protectionism overseas does not distort free competition within our borders, or unduly restrict competitive opportunities for U.S. systems abroad. Similarly, Teledesic agrees on the importance of responsible spectrum management, and supports the evenhanded application of the technical and legal measures proposed by the Commission toward that end. As the Commission recognizes, responsible spectrum management requires consideration of international coordination activities, and the Commission should

consider not only space station coordination, but also the coordination of earth stations in the "home market"[1] of the non-U.S. system in question.[2]

To the extent that it is consistent with these principles of competition and spectrum management, the U.S. should lead the way toward a global regulatory environment that minimizes costly and time-consuming regulation. In this vein, Teledesic supports the Commission's tentative conclusion that the United States should not insist on relicensing foreign space stations. Such relicensing would serve no useful function internationally, and very likely would lead other administrations to impose the same condition on U S -licensed satellite systems as they seek landing rights around the world. Although there are legitimate, purely domestic reasons for administering *some* type of licensing procedure for non-U S. satellites, these goals can be met by a well-designed regime of earth station licensing, as the Commission proposes. In addition, the Commission's proposal to license earth stations instead of relicensing space stations comports with the limited precedent available[3] as well as with the positions advanced by the United States in connection with the upcoming ITU World Telecommunication Policy Forum.[4] The prospect of

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[1] Teledesic agrees that the "home market" should generally be considered to be the Administration that notifies the system to the International Telecommunications Union. However, the Commission should reserve for itself the flexibility to consider other jurisdictions to be "home markets" where necessary to provide an accurate picture, based on all the facts and circumstances, of the competitive consequences of market entry

[2] In support of this evaluation, the Commission might add a question to Form 493, asking earth station applicants to list all coordinations in which the United States is engaged with the licensing Administration of the non-U.S system in question.

[3] *See, e.g.*, Vision Accomplished, Inc., 11 F.C.C. Rcd. 3716 (Int'l Bur. 1995); IDB Worldcom Services, Inc., 10 F.C.C. Rcd. 7278 (Int'l Bur. 1995).

[4] Contribution of the United States of America, ITU World Telecommunication Policy Forum, at 6. Teledesic supports the Commission's proposal for blanket licensing of receive-

relicensing in the U.S. should be maintained, however, for systems whose home markets impose relicensing requirements on U.S. systems.

Finally, Teledesic embraces the Commission's decision to focus on *effective* competitive opportunities, particularly by considering *de facto* market barriers along with *de jure* market barriers. In our view, the number one *de facto* barrier about which the Commission must be vigilant is any unsupported claim of spectrum scarcity, and the ECO-Sat test should clearly list this as a *de facto* market barrier. The Commission must carefully scrutinize markets in which spectrum is denied to U.S. systems, and should not accept "sham" scarcity determinations. While each national government necessarily and properly has the sovereignty to determine how spectrum is used within its borders, any national spectrum allocation that has the primary purpose or effect of blocking access by foreign systems should be rejected. A national allocation that materially differs from the ITU Table of Frequency Allocations, at the very least, should be considered strong evidence of governmental purpose to block access by foreign systems.

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only FSS earth stations, but notes that the Commission has already used blanket licensing for other types of earth stations, including 14/12 GHz VSATs and MSS handsets which of course transmit and receive. The U.S. contribution to the World Telecommunication Policy Forum supports blanket licensing of Global Satellite System (GSS) terminals. *See id.* In order to avoid any confusion, the Commission should clarify that its receive-only FSS proposal is not intended to foreclose blanket licensing for transmit and receive earth stations in any service where there are no interference considerations that call for station-by-station evaluation. The Commission should pursue with other ITU Administrations the increased use of "mutual recognition" agreements for equipment approval.

II. THE COMMISSION SHOULD REFINE ITS PROPOSAL IN TWO RESPECTS TO BETTER ACCOMMODATE THE EMERGING MARKET FOR INTERACTIVE BROADBAND SATELLITE SERVICES.

The Commission's proposal deals well with most existing services, particularly the traditional geostationary fixed satellite services ("FSS"). However, Teledesic urges the Commission to refine its proposal in two respects: First, by creating a separate service category for emerging interactive broadband satellite services; and second, by applying a "critical mass" test to that service category rather than the "home-plus-route" standard proposed for traditional FSS.

A. Interactive Broadband Satellite Services

Teledesic has pending before the Commission an uncontested application to construct, launch, and operate a non-geostationary satellite system that will provide affordable global access to a wide array of advanced, interactive, broadband services, including voice, two-way digital data, videoconferencing, Internet access, and interactive multimedia services such as telemedicine and distance learning.[5] Because the Commission's proposal recognizes only FSS, MSS, and DTH as distinct service categories, its application to interactive broadband services such as those proposed by Teledesic is problematic. Interactive, broadband services bear almost no resemblance to traditional FSS (*e.g.*, broadcast, video backhaul, and thin-route trunking) or traditional MSS (*e.g.*, voice or narrowband data messages).[6] Therefore, it is unclear whether

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[5] Application of Teledesic Corporation for Authority to Construct, Launch, and Operate a Low Earth Orbit Satellite System in the Domestic and International Fixed Satellite Service and in the International Mobile Satellite Service, File Nos. 22-DSS-PL/A-94, 43-SAT-AMEND-95, 127-SAT-AMEND-95.

[6] Nor do they resemble traditional DTH (*e.g.*, point-to-multipoint, multichannel video programming).

Teledesic would be considered an FSS system, an MSS system, or both. This creates uncertainty not only for Teledesic, but for virtually all non-U.S. systems wishing to provide FSS or MSS in this country, since these operators will be unable to determine whether any exclusion of Teledesic from foreign markets will affect their prospects in the United States. In addition, if Teledesic is squeezed into any of the existing categories, the Commission's ECO-Sat analysis for that category could turn into a futile attempt to protect against competitive distortions between systems that do not in fact compete. In the *Notice*, the Commission carefully avoids any preoccupation with trade policy and focuses instead on the *competitive* consequences of differential market access. Lumping Teledesic together with non-competitors in the application of the ECO-Sat test would undercut this overall philosophy.

The problem lies with the fact that the traditional regulatory distinction between FSS and MSS is not particularly meaningful in this policy context. Much of the confusion stems from a tendency to assume that all FSS is provided by geostationary satellites, and correspondingly, that "MSS" is synonymous with "non-geostationary." In fact, both MSS and FSS can be provided from either geostationary or nongeostationary platforms. Indeed, all of the proposed non-geostationary "MSS" systems are targeting some fixed as well as mobile applications, and the interactive broadband services proposed by Teledesic have also been proposed by a number of geostationary Ka-band[7] systems. While the global interactive capability of the Teledesic network

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[7] The term "Ka-band" refers generally to frequencies from 17.7-20.2 GHz (downlink) and 27.5-30.0 GHz (uplink).

best resembles the MSS, its broadband capability best resembles the FSS.[8] In short, the MSS/FSS distinction is of no particular relevance to the Commission's goal of rationally defining various satellite markets.

It would therefore be unwise for the Commission to adopt service categories based on an FSS/MSS dichotomy that is at best incomplete and at worst obsolescent. Instead, the Commission should adopt service categories that facilitate the evaluation of real competitive consequences in real markets each time the Commission applies the ECO-Sat test. The Commission's proposed FSS, MSS, and DTH service categories may well serve this function with respect to one-way broadcasting, video backhaul, thin-route trunking, and mobile telephony. But they do not facilitate any coherent competitive analysis of interactive broadband services like those Teledesic will provide.

The *Notice* itself anticipates some problems of this type, and suggests that the Commission will apply its service categories very flexibly in order to accommodate differences among regulatory regimes around the world.[9] Such flexibility is necessary if the Commission is to avoid imposition of a static regulatory framework on this very dynamic industry, no matter how the lines between service categories are drawn. However, the need for flexibility must be tempered by the need to provide adequate regulatory certainty for operators, users, and investors. A separate service category for interactive broadband satellite services would provide this certainty for all

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[8] From a technical standpoint, the movement of a non-geostationary satellite relative to Earth makes it practically irrelevant whether the user is also moving. In this sense, *all* non-geostationary systems are a form of "mobile" satellite service.

[9] *Notice* ¶¶ 34-35.

concerned, recognizing in advance the clear distinctions between Teledesic's services and those of more traditional MSS, FSS, and DTH systems.

The Commission should therefore recognize a separate service category for Interactive Broadband Satellite Services ("IBSS"). While flexible application would still be critical to the success of the Commission's proposed regulatory structure, Teledesic suggests that this category include all satellite systems, whether geostationary or nongeostationary, that provide switched, two-way communications, primarily directly to end users, over channels capable of at least 64 kbps when accessed by the typical user. Virtually all of the systems proposing IBSS to date have been proposed in the Ka-band. Although Teledesic believes these services are best suited to non-geostationary satellites, the IBSS service category should include any satellite or satellite system that meets the service characteristics, regardless of satellite platform.

B. Critical Mass for IBSS

If the Commission does recognize a separate service category for IBSS, systems of that type should be subject to the one-step, "critical mass" analysis suggested by the Commission for MSS providers.[10] More precisely, the Commission should permit non-U.S. providers of IBSS to enter the U.S. market if such access would not distort competition for IBSS in the United States.[11]

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[10] *Notice* ¶ 47; *see also id.* ¶ 31.

[11] As the Commission tentatively concluded with respect to MSS, a non-U.S. system should be considered to have "entered the U.S. market" when the system operator (or an affiliated entity) receives authority to conduct radiocommunications within the borders of the United States, or between the United States and another country. The Commission should not attempt to block landline carriage of communications links for which the only radio-based segment occurs entirely outside the borders of the United States. *See Notice* ¶ 47.

The two-pronged "home-plus-route" standard proposed by the Commission for most satellite services works very well for service categories where there is a significant amount of cross-border radiocommunication. It prevents non-U S systems from gaining competitive advantages based on restrictive access policies in the home market or any route market. Under the Commission's proposal, a non-U.S. system whose "home" market is closed to U.S. systems would not be able to enter the U.S. market at all If the "home" market were open, but many route markets remained close, the route-by-route restrictions proposed by the Commission would forbid the U.S. earth station operator from using the non-U.S. system to send or receive any radiocommunication to or from any of the closed markets, thereby preventing the lack of competition on the closed "routes" from distorting competition on the open ones.

However, because the notion of a "route market" is inherently a cross-border concept, the "home-plus-route" standard cannot deliver open markets and free competition for services that rely primarily on purely intra-border radiocommunications. IBSS, for example, is an "access technology"; it is designed to give interactive broadband capabilities to users who do not have any direct fiber connection. This includes not only remote or rural users, and users in less developed countries, but currently also the vast majority of users even in the United States. Because the high capacity of fiber optic cable makes it more economical than satellite service for thick-route trunking applications, most IBSS systems will be designed to get the user onto a fiber network as quickly as possible. While some of these satellite hops may cross national boundaries in some parts of world, the majority will not do so. Consequently, any route-by-route restriction on a non-U.S. system's provision of IBSS in the United States would apply to only a minor portion of that system's traffic. It would therefore be possible for a non-U.S. service provider to offer this

critical access service to the vast majority of the U.S. market even if a substantial number of countries other than the "home" market refused to allow Teledesic to provide IBSS abroad. Because the fixed costs of the satellite constellation necessary for IBSS are so high relative to the marginal costs, this differential market access would substantially threaten price competition in the United States even though the U.S. market remained open to both systems.

The solution to this problem lies in a "critical mass" test. Under such a test, a non-U.S. satellite system would be permitted access to the U.S. market -- for all purposes -- if such access would not distort competition in the United States. As the Commission recognizes, it is conceivable that "critical mass" could be defined more particularly, *e.g.*, by naming countries that are particularly significant economically, or by setting some rule like "the thirty most populous countries." However, because different business plans may make competing systems take very different views of economic significance, Teledesic recommends that the Commission opt for a broader and therefore more flexible formulation. A simple, one-step, bottom-line test of whether competition would be distorted will permit the Commission to consider all the facts and circumstances necessary to make an informed, pro-competitive decision.

III. CONCLUSION

The Commission's proposal is an important step toward greater competition both here and abroad. It will expand the extent to which users in the United States may take advantage of the services of non-U.S.-licensed satellites, and it will help level the playing field for U.S. and non-U.S. systems alike wherever national governments are foresighted enough to open their markets and embrace competition. The Commission should refine its proposal to add a service category

for Interactive Broadband Satellite Services, and generally to allow non-U.S. providers of IBSS to enter the U.S. market unless such entry would distort IBSS competition. The final rules should be adopted expeditiously so that the benefits of competition can be enjoyed as soon as possible.

Respectfully submitted,

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