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**Department**

**of**

**Communications**

**Interim Report -  
Intercity  
Microwave  
Licensing  
Review**



Government of Canada  
Department of Communications

Gouvernement du Canada  
Ministère des Communications

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① INTERIM REPORT

PUBLIC COMMENTS ON THE INTERCITY MICROWAVE  
LICENSING POLICY REVIEW  
(GAZETTE NOTICE DGTN 004-80  
NOVEMBER 29, 1980)



DEPARTMENT OF COMMUNICATIONS  
OTTAWA, ONTARIO  
JULY 1981



## INTRODUCTION

On December 3, 1980, the Minister of Communications announced that the Department intended to carry out a review of certain aspects of the microwave licensing policy relating to the intercity delivery of television programming signals to broadcasting undertakings. The November 29, 1980 issue of the Canada Gazette gave formal notice of the review and called for public comments. This paper reports on the submissions received, makes some preliminary findings and identifies areas where further information is required.

## BACKGROUND

The present microwave radio relay system licensing policy, announced in House of Commons on February 12, 1970, requires that the applicants for new microwave relays demonstrate some public interest and need to be served by the creation of the new facility, and that existing facilities cannot properly satisfy this interest and need. The policy allows the Minister of Communications, in the granting of new licences for microwave relays, to determine that new facilities will provide significant advantages over existing facilities in terms of cost, convenience, quality or flexibility. Applicants for licences for major systems have been required to obtain a quotation from a telecommunications common carrier in addition to their own proposal to assist in the determination of the public interest.

In the earlier years of the microwave licensing policy, the bulk of the microwave licence applications received by the Department was from the telecommunications common carriers to establish public commercial services. In comparison, only a small number of applications was being received to establish private commercial services by users, such as the utility groups, broadcasting industry and government departments and agencies. During the later years, however, with the development of cable television services to every major urban centre and to a number of rural communities and, also, with the extension of broadcasting network services to less populated regions of the country, the carriage of television signals by microwave facilities has greatly increased. Consequently, the number of private microwave applications from the broadcasting industry has become significant.

In the ten years since the microwave licensing policy was introduced, there has been substantial growth in the use of microwave, particularly for the transmission and delivery of distant television signals. Microwave systems have been developed to serve a range of broadcasting needs, such as: to deliver broadcasting signals from remote head-ends to regional cable television systems, to deliver broadcasting signals from studio centres to networks of broadcasting stations, and to provide regional and national broadcasting network feeds. In certain regions of the country, the usage of microwave spectrum for television signal carriage represents more than 30% of the licensed microwave radio frequencies.

Due to recent decisions of the Canadian Radio-television and Telecommunications Commission (CRTC) in support of "new and imaginative" services by broadcasting undertakings, and the increased activities of cable television systems in the production and packaging of programming signals, the demand for new microwave relay facilities appears certain to continue. The range of policy considerations which the Department has to take into account in processing some of these new microwave relay licences has identified a need to reconsider the public interest in certain aspects of the licensing policy.

On November 29, 1980 the public was invited by Notice in the Canada Gazette Part I (Annex A) to make submissions to the Department of Communications. Four general issues were outlined in the Notice to invite specific responses and these were stated as follows:

- The present microwave licensing and spectrum allocation policies provide only for intercity trunking of a limited number of video channels;
- Private commercial intercity microwave networks may have a significant impact on the capability of common carriers to maintain and extend telecommunications services to the public;
- The granting of a private commercial licence raises concerns about sharing, reasonable access, operational arrangements and other conditions related to the utilization by others of the services and facilities;
- The implementation of extensive intercity microwave facilities to serve contiguous high density markets may inhibit the extension of new programming services to people in areas which can only be effectively served by satellite.

It was indicated that the first issue, spectrum requirements, will be studied as part of the 1-10 GHz/10-30 GHz spectrum policy reviews.

#### RESPONSES FROM THE PUBLIC

A total of twenty-eight responses were received from the wide range of interested organizations which are listed in Annex B.

Thirteen submissions were received from the cable television industry. Cable television operators, in general, favour changes to the microwave licensing policy that will permit them to choose whether to build and operate their own microwave systems instead of leasing facilities from the common carriers. The submissions of most cable operators maintained that private commercial systems would have little or no adverse impact on the telecommunications common carriers because of the insignificant size of this market as compared to the overall commercial activities of the carriers. It is

argued that private microwave systems are less costly and more flexible. Although it is indicated in the public notice that the spectrum requirements for the growing need for intercity video microwave facilities would be studied in the Department's ongoing spectrum policy reviews, most of the cable television operators used the occasion to express the need for the allocation of additional spectrum to accommodate high capacity microwave systems, with preference for the 12.7-13.35 GHz or 14.5-15.35 GHz bands, for local and intercity delivery applications. Cable companies also claim that some of the licensing criteria presently contained in the Very High Capacity Microwave (VHCM) licensing policies are too restrictive.

In addition, the briefs of the cable operators stated that cost savings and flexibility realized from private microwave systems would indirectly support and stimulate the production and delivery of new and innovative programming signals, and make them available to a greater number of Canadians. Concerning the issue of sharing of facilities, it was indicated that the present licensing principles being applied to VHCM system operations encourage the sharing of signals and facilities on a non-profit basis, provide a fair and reasonable access of the service and facilities, and would be quite acceptable for private intercity microwave operations. On the issue of the potential adverse effect that intercity microwave development may have on the implementation of satellite program delivery, it was indicated that within the foreseeable network for cable television program delivery, there are signals which are intended for regional communities of interest or regional microwave delivery where intercity microwave facilities are the most economical and practical systems, and there are other signals which have sufficient national interest and/or a large enough audience to support a satellite signal delivery. For the latter case, satellite delivery would offer economies and service advantages over regional microwave systems.

Rogers Cablesystems Incorporated suggested in its brief that the current VHCM microwave policy (DOC Licensing Policy for Short-Haul Microwave Systems in the Bands 12.7-12.95 GHz and 14.5-15.35 GHz) is too restrictive in terms of channel capacity and coverage areas and thereby inhibits the cable industry's capability to extend programming services. In its view, privately owned regional microwave systems can best serve the public interest in terms of cost and flexibility. Within the overall network required to support the cable industry, intercity microwave facilities will provide remote head-end connections and intercable system connections. Also, the current trends are for specialized programming as opposed to mass interest programming, and such services would be provided on a retail basis where regional intercity microwave systems would be the best transmission medium.

L'Association des câblodistributeurs du Québec inc. described its long term plan in support of an extensive microwave and satellite delivery network having local, regional, provincial and national trunking facilities, using the optimum transmission technologies to accommodate a province-wide delivery network. Intercity microwave facilities are seen as an important element of the overall trunking scheme of television programming for regional and intra-provincial destinations. Its brief suggested the need for the private



commercial licensing of some of these systems, so that the development of this provincial network could be done in the most cost effective and flexible way. L'Association also supported the formation of consortia and other operational arrangements that will permit cost sharing, access of service and non-profit operation of these systems amongst many users. L'Association indicated an intention to offer interactive services such as Telidon.

The Canadian Cable Television Association (CCTA) brief indicated the need for new frequency bands to be made available for intercity microwave systems and the need to allow cable licensees to own their microwave facilities. On the issue of the potential impact of the development of private microwave facilities on the common carriers, the brief argued that the cable television industry is offering specialized services, which should be provided by the most economical means. CCTA supports the development of private intercity microwave systems along the sharing and non-profit principles enunciated in the present VHCM Microwave Licensing Policy. As to the potential impact on the utilization of satellites, CCTA maintained that there are two distinct markets to be served, the urban and rural remote cable television markets. For programming signals of regional interest, terrestrial microwave is the preferred and only economical medium. The development of intercity microwave will not appreciably inhibit satellite programming, and in some situations it will stimulate sufficient demand for a number of programs to be considered for national satellite delivery on a commercial basis.

The brief by CUC Limited represents the views of the operator of both cable systems and of a major private commercial microwave network. It outlines some advantages of private microwave facilities in terms of pricing of new services, cost benefits being allocated to the BRU's involved, benefits to the broadcasting industry. It is claimed that private microwave systems will create "rate regulation through competition". As a private microwave operator, CUC submitted that any new spectrum should be utilized by both broadcasting undertakings and carriers to develop microwave video transmission facilities. CUC Limited wants to provide microwave services to any communications users and be licensed, in its words, as a "restricted carrier" (specialized common carrier).

The remaining briefs from the cable industry supported some of the views expressed in the above submissions for additional spectrum, and for the liberalization of the existing microwave licensing policy to permit the licensing of private microwave systems for reasons of costs and flexibility. There was considerable consistency among the briefs; therefore, a broad generalization of the positions put forward is possible. There was consistent support for the need for the cable television industry to own and operate its microwave facilities. It is claimed that the ability to choose the most

economical microwave service would reduce the cost of broadcasting services to the subscribers and in certain situations would be the only affordable approach to providing broadcasting services to small communities.

Two briefs were received from off-air broadcasters. The Canadian Association of Broadcasters (CAB) and the Canadian Broadcasting Corporation (CBC) maintained the need for more spectrum for video transmission. The CAB expressed the need to have microwave networks designed more to broadcasters' traffic needs, noting the aspect of relative costs of microwave facilities, and that private microwave facilities are means of strengthening the broadcasting infrastructure. The CAB brief argued that where the traffic is new programming services, private microwave systems should not adversely affect to any degree the ability of the common carriers to maintain existing services and that satellite services are not expected to be competitive with terrestrial in sub-regional system applications. Also, it maintained that if there are situations where the perceived public benefits outweigh the additional costs of using satellite facilities, the Department of Communications should take appropriate steps to render the satellite costs competitive with microwave alternatives.

Seven briefs were received from the telecommunications common carrier industry. In general, the common carriers supported the present microwave licensing policy and procedures and are opposed to any relaxation and/or modification of the policy that would further facilitate the establishment of private intercity microwave systems to deliver programming signals to broadcasting undertakings. The common carriers maintained that the establishment of private microwave systems will not be in the public interest, would cause a severe revenue drain, and would inhibit the extension of basic telecommunications services to all Canadians, especially those in remote, rural and sparsely populated areas. These briefs also maintained that the public interest can best be served by the telecommunications common carrier network developed for diverse purposes to meet all the telecommunications requirements. Common concerns were expressed that microwave transmission service is an important source of their operating revenues, which is essential for them to continue to provide universal basic telephone service in all rural and remote areas of their operating territories. Also, it is generally contended that, by and large, common carriers provide competitive microwave services which are of high quality, flexible and have many other advantages over private microwave services.

The Bell Canada brief argued that there are no demonstrated causes to change the current microwave licensing policy and that the national interest is well served by the Department of Communications' current policy and procedures which in its view encourage the provision of intercity microwave facilities by the regulated common carriers. The fragmentation of Canada's telecommunications networks through the development of private microwave systems would not be in the best interest of Canadians. Competition between selected services should be conducted on a fair and equitable basis using the facilities of the regulated common carriers. The provisioning of video services to broadcasting undertakings by the common carrier facilities according to Bell Canada will

provide benefit to all through cost savings, operating reliability and efficiency, and optimal planning. The overall long-term development of Canadian telecommunications systems should not be compromised by ad hoc decisions and any changes in policy should be considered in a full public forum. In its view, the cable television industry wishes to compete with the telecommunications common carriers in non-programming types of services and the establishment of intercity microwave systems is just a first step.

The CN Telecommunications brief, representing Terra Nova Tel and NorthwTel operations, argued that the financial effects of private intercity microwave facilities would be severe for small carriers operating predominantly in a rural and remote marketplace. Leased microwave service is a principal source of revenue since this service has normally been provided by the carriers. The building of private microwave systems in parallel to existing carrier infrastructures is both wasteful and costly. The existing microwave licensing policy should be continued and if additional spectrum is allocated, both the carriers and others should be potential users.

L'Association des compagnies des téléphones du Québec inc. maintained that private microwave facilities are a duplication of the carrier networks and lead to the wasteful utilization of resources. Intercity microwave services have helped to cross-subsidize the less profitable rural services, and thus have enhanced the carrier's ability to provide universal telephone service. The long-term objectives of the cable television industry are to compete with the telecommunications carriers which will result in the loss of revenues. Intercity microwave will result in a situation where the highly populated areas will have duplicate facilities while the less populated areas will be underserved and, therefore, the basic telephone service rates would have to be increased.

Telesat Canada's response addressed the satellite issue - "the provision of new programming services via microwave networks in highly populated areas of Canada may inhibit the extension of those services to areas which may best be served by satellite". The brief raised some concern over the effect of incrementally licensing regional microwave radio systems and the long-term prospects of ever being able to provide the same services to the total population. Telesat went on to say that in taking each licence application in isolation of the long-term objectives of providing these broadcasting services to the total population, it is not difficult for an applicant to demonstrate the economic benefits of each microwave radio relay system for the delivery of broadcasting programming between two or even more highly populated centres. For geographically-restricted service provisioning, microwave may be less expensive than satellite and this incremental microwave licensing justification can be proved again and again for high density areas without providing the extension of these services to less populated areas. However, when viewed as a total service market, and within the framework of serving the total population, a satellite delivery system would have originally been more economical. The policy should ensure that "the long-term objectives of extension of service to Canadians in underserved areas be addressed by all licence applicants"; "the economic analysis of licence applications should incorporate the evaluation of the



satellite alternative as it applies to serving the total Canadian audience"; and, where the satellite alternative compared favourably, investment in microwave systems should be discouraged. This approach would "ensure that the long-term national objective of service to remote locations is not ignored".

Québec Téléphone's brief opposed the relaxation of the present microwave licensing policy and maintained that it would not be in the public interest. The public interest in the provisioning of services can be assessed in terms of availability, quality and cost. The consequences of the development of new networks in terms of technical, financial and quality impacts on the carriers are of main concern. The brief opposed an "open door policy" that would permit the cable industry to compete in certain services and selected areas. It maintained that the public interest is best served in the delivery of broadcasting service by the network that reaches all Canadians - the Canadian telecommunications infrastructure already in place.

Alberta Government Telephones (AGT) expressed some concerns at the apparent policy shift being contemplated by the Department. In its view, there is insufficient rationale to support the argument that new facilities will be more advantageous over existing carrier facilities in terms of cost, quality, availability or flexibility. It is alleged that the sharing of facilities amongst two or more broadcasters would be a form of common carrier activities. AGT cited the importance of providing new services to smaller centres and that the Alberta Intercity CATV plan, which incorporates less populated communities with large centres, is a prime example. "Duplication of a portion of the existing microwave network is clearly not in the public interest and will inevitably lead to negative impacts on common carrier revenues to the detriment of public telephone subscribers."

The brief of CNCP Telecommunications supported the existing microwave licensing policy principles. It indicated that private commercial intercity microwave licensing has the potential of affecting the ability of telecommunications common carriers to maintain and extend telecommunications services to the public. The brief recommended a reinforcement of certain procedural aspects of processing an application to ensure that the policy principles are better administered in the public interest. Some of the suggestions in regard to private microwave licence applications were that quotes from all potential carriers be requested instead of one, that various uses of technologies be assessed, that letters be received from potential carriers on their interests, and that other requirements be incorporated in the policy's administrative procedures to advance the use of existing systems.

Only one written submission was received from a provincial government, although several provincial governments have expressed interest in the review and the subject. The Government of Saskatchewan's brief referred to the importance of the policy review and the need for federal-provincial discussion at the ministerial level. The submission maintained that the planning and integration of all vintages of technology have enabled the common carriers to provide many services to widely dispersed communities and that if competing private microwave services are permitted, these benefits will be lost and will

result in overall increased costs of services to the end-users. It was stated that some members of the cable television industry have publicly indicated their intention of becoming a third national carrier, a development which would have serious consequences for telecommunications services to many areas of Canada. There would be an erosion of competitive revenues which are essential for maintaining services to remote and sparsely populated areas. As well, there would be a fragmentation of facilities, making it increasingly difficult for the established common carriers to provide universal access to services.

Six briefs representing broadcasting consultants, users and suppliers of broadcaster microwave systems were received supporting the ownership of microwave systems by broadcasters.

#### SCOPE OF THE REVIEW

Although the public comments extended beyond the terms of reference of the public review (Annex A), it will nevertheless assist the Department in putting the issues into proper perspective. However, it may assist the respondents to be reminded of the scope of the policy review and the issues submitted for public comments which are as follows:

- The four general issues contained in the November 29, 1980 Gazette Notice and repeated in the BACKGROUND SECTION of this paper provide a framework for the policy review.
- Spectrum capacity requirement is for broadcasting programming signals which are part of a broadcasting licence. The specific spectrum allocation policies will be dealt as part of the 1-10 GHz and 10-30 GHz spectrum policy reviews that are ongoing in DOC.
- The microwave licensing policy review is limited to the intercity delivery of broadcasting signals and broadcasting related signals including "new and imaginative" services which are subject to regulation under the Broadcasting Act.

#### SOME FINDINGS AND AREAS FOR FURTHER SUBMISSIONS

The briefs submitted in response to the Gazette Notice discussed at some length the various issues underlined for the review and presented in many cases general views and broad statements of principle but were without supporting quantitative data. Furthermore, a number of specific policy proposals have been made to the Department which require further comment.

Accordingly, the Department could invite comments on licensing policy proposals advocated by various affected groups. These proposals raise a number of questions for consideration in three broad categories:

(I) Economic Factors in Microwave Licensing Policy

- (a) What is the total revenue derived by individual telecommunication common carriers, from the intercity carriage of programming signals? What is the net revenue from this service after expenses allowed by their regulator?
- (b) What are the identifiable contributions to economics of scale or to extension of other telecommunications service which individual telecommunication carriers attribute to intercity carriage of programming signals? What are the magnitudes of the contributions?
- (c) What is the total cost to individual broadcasting undertakings for the intercity carriage of programming signals:
  - (i) by unshared private systems;
  - (ii) by shared private systems;
  - (iii) by a telecommunications common carrier?
- (d) What is the total revenue to individual broadcasting undertakings approved by the regulator for the intercity carriage of programming signals?
- (e) What are the identifiable contributions to improvement or extension of service which individual broadcasting undertakings attribute to economies obtained by their operation of unshared or shared private microwave systems? What are the magnitudes of the contributions?
- (f) Should radio licences for private intercity microwave contain a condition limiting the revenues received (from subscribers to programming signals) to the amounts required to recover the costs presented in the application for the licence?

(II) Microwave System Planning and Management Factors

- (a) What planning procedure should be used to preclude the installation and operation of a number of microwave systems for delivery of the same programming signals in a given geographic area?

- (b) What method will best ensure the co-operation and collaboration of licensed broadcasting undertakings in developing shared-use systems whether private or carrier provided?
- (c) Is regional planning of microwave systems for programming signal delivery required to ensure that the location, quality and capacity of trunk routes meets the needs or potential needs of distant communities? What consultative arrangements would facilitate the development of regional plans?
- (d) Is a public announcement of applications for a microwave system, inviting all interested parties to comment on the proposal, required or desirable to disclose planning and management factors or issues?
- (e) What elements of shared-use arrangements and ownership conditions, including degree of control of individual participants should be considered as candidates for Regulations under the Radio Act or as conditions of the radio licence?
- (f) What criteria should be employed to assess the efficiency of the use of licensed private microwave channels when additional channel capacity is requested?
- (g) What elements of service flexibility or lack of service flexibility apply to each alternative?
- (h) Is there a need for the Department of Communications and the industry to adopt standards on the performance and design/operation objectives of intercity microwave facilities that will support a recognized quality of broadcasting service and will provide sufficient flexibility for these systems to be extended?
- (i) An indication of spectrum requirement for intercity television signals carriage would assist the policy review.

(III) Satellite Programming Signal Delivery Factors

- (a) What principles should be applied to the consideration of a microwave licensing application to determine whether satellite delivery of programming signals would contribute to a more orderly development and operation of radiocommunications in Canada.

- (b) Will a regional microwave system planning process provide adequate consideration of satellite programming signal delivery alternatives?
- (c) What additional technical, economic and social criteria are required to assess whether a satellite or microwave alternative would be preferable?

CONCLUSION

In view of the general interest expressed in this policy review and the need for further detailed information, a further comment period should be announced through a Notice in the Canada Gazette as proposed in Annex C.

The Canada Gazette Part I,

November 29, 1980

DEPARTMENT OF COMMUNICATIONS  
Radio Act

Notice No. DGTN 004-80

Review of Certain Aspects of the Microwave Radio Relay System Licensing Policy related to Intercity Delivery of Signals for Use by a Broadcasting Undertaking.

In CRTC 80-142, the Canadian Radio-television and Telecommunications Commission (CRTC) approved the distribution by broadcasting receiving undertakings in a number of communities in Southern Ontario of special programming such as Children's programming, provincial government proceedings, television broadcasting repeats and others. Furthermore, the Commission indicated in its decision that it encourages the introduction of new and imaginative services and will continue to study applications for the provision of such services on a case-by-case basis to ensure that any potential conflicts between the new services and existing licensed services are resolved in the public interest on the basis of the requirements of the Broadcasting Act.

As a consequence of the decision by the CRTC, the Department of Communications has received an application, and anticipates receiving others from broadcasting receiving undertakings, to construct and operate an extensive and integrated microwave network for local and intercity delivery of some of the approved signals. Analysis of the application indicated that the local microwave delivery system met the Department's licensing policies and technical requirements. However, in dealing with the intercity trunking aspects of the application (and similar situations from other regions) the Department has identified a number of major policy issues. These require consideration and resolution in order to deal with such applications.

At the present time, the Department's policy on the granting of licences for new microwave radio relays requires that the applicants demonstrate some public interest and need to be served by the creation of the new facility, and that existing facilities cannot properly satisfy this interest and need. The policy allows the Minister of Communications, in the granting of new licences for microwave relays, to determine that the new facilities will provide significant advantages over existing facilities in terms of cost, convenience, quality or flexibility. Applicants for licences for major systems have been required to obtain a quotation from a telecommunications common carrier in addition to their own proposal to assist in the determination of the public interest.



In the ten years since the microwave licensing policy stated above was introduced, there has been a significant growth in the use of microwave, particularly for the transmission and delivery of distant television signals. The demand for new microwave relay facilities appears certain to continue in order to deliver additional programming services. This actual and potential increase in requirements for such microwave relay facilities has altered the range of policy considerations with which the Department is confronted in determining whether approval should be given to an application for a new microwave relay licence. Some of the issues that have been brought to the attention of the Department are:

- The present microwave licensing and spectrum allocation policies provide only for intercity trunking of a limited number of video channels;
- Private commercial intercity microwave networks may have a significant impact on the capability of common carriers to maintain and extend telecommunications service to the public;
- The granting of a private commercial licence raises concerns about sharing, reasonable access, charges, operational arrangements and other conditions related to the utilization by others of the services or facilities (details of the applicable Radio Regulation Part II, section 38(1) to (5) are available at the Regional and District Offices of the Department); and
- The implementation of extensive intercity microwave facilities to serve contiguous high density markets may inhibit extension of new programming services to people in areas which can only be effectively served by satellite.

The first issue, related to designation of radio spectrum for very high capacity microwave intercity trunking, will be considered in the context of the present review of 1-10 GHz and of the forthcoming departmental review of the 10-30 GHz range of spectrum.

In order to consider the other issues referred to above, notice is hereby given that the Department intends to review those aspects of the microwave licensing policy relating to the intercity delivery of signals for use by a broadcasting undertaking. Any potential applicant for a microwave relay licence, any supplier, user or potential user, and any other interested person, through an association or otherwise, may make representations to the Department of Communications concerning the above issues or any other matters related to the review.

Submissions should be addressed to the Director General, National Telecommunications Branch, Department of Communications, 300 Slater Street, Ottawa K1A 0C8, postmarked within 90 days from the date of publication of this Notice. All submissions must cite the Canada Gazette Part I publication date, and the Notice reference number.

Comments received in response to this Notice will be made available for public inspection at the Department of Communications' Library, 300 Slater Street, Ottawa, and at the Regional Offices of the Department in Vancouver, Winnipeg, Toronto, Montreal and Moncton.

Dated at Ottawa, this 29th day of November, 1980

V. Hill  
Director General  
National Telecommunications Branch  
Department of Communications

RESPONSE TO GAZETTE NOTICE

Alberta Government Telephones, Edmonton, Alberta  
Association des cablodistributeurs du Québec inc., Montréal, Québec  
Aurora Cable TV Limited, Aurora, Ontario  
Bell Canada, Toronto, Ontario  
Cable TV Consultants, Willowdale, Ontario  
Canadian Broadcasting Corporation, Montreal, Quebec  
Canadian Cable Television Association, Ottawa, Ontario  
Canadian National Telecommunications, Toronto, Ontario  
Clear Crest Cable TV Limited, New Liskeard, Ontario  
CNCI Telecommunications, Montreal, Quebec  
Community Antenna Television Limited, Calgary, Alberta  
Country Cable Limited, Listowel, Ontario  
CUC Limited, Toronto, Ontario  
dgh television systems ltd, Rexdale, Ontario  
Fundy Cablevision Limited, Saint John, N.B.  
Government of Saskatchewan, Regina, Saskatchewan  
Imagineering Limited, Don Mills, Ontario  
Kincardine Cable-TV Limited, Kincardine, Ontario  
L'Association des compagnies des téléphones du Québec inc.  
Ville Mont-Royal, Québec  
Mid-Canada Communications Corporation, Sudbury, Ontario  
Mitchell Seaforth Cable TV, Mitchell, Ontario  
Premier Communications Limited, Vancouver, B.C.  
Québec-Téléphone, Rimouski, Québec  
Radio & TV Distribution Limited, Parry Sound, Ontario  
Rogers Cablesystems Incorporated, Toronto, Ontario  
Telesat Canada, Ottawa, Ontario  
The Canadian Association of Broadcasters, Ottawa, Ontario  
Wilfrid Laurier University, Waterloo, Ontario

## DEPARTMENT OF COMMUNICATIONS

## RADIO ACT

Notice No. DGTN 004-81

Supplementary Notice Regarding the Review of Certain Aspects of the Microwave Radio Relay System Licensing Policy Related to Intercity Delivery of Signals for Use by a Broadcasting Undertaking.

Notice is hereby given that a supplementary comment period is being opened on the policy review announced in a Notice in the Canada Gazette Part 1, DGTN 004-80, dated November 29, 1980.

In response to the November 1980 Gazette Notice on the microwave policy review, some twenty-eight submissions or briefs were received from a wide range of industry groups. An overview of the submissions has been prepared in the form of an Interim Report which is now available from the Department of Communications. Some submissions raised a question about the scope of the review. This microwave licensing policy review is limited to the intercity delivery of broadcasting signals and broadcasting related signals which are subject to regulation under the Broadcasting Act by the Canadian Radio-Television and Telecommunications Commission.

The submissions fall into three categories. Telecommunications carriers favour the continuation and the strengthening of the current microwave licensing policy which they maintains supports the use of carrier facilities. The cable television industry and broadcasters support the more liberal licensing of private microwave systems for intercity delivery of programming signals. Telesat requests that the satellite alternative should be considered before licences are issued for private or carrier-owned microwave systems. All parties presented general statements in support of their respective positions, however the briefs do not provide adequate supporting information to assist the Department in determining the extent to which their policy proposals would impact on themselves or others.

Consequently, the Department now invites interested parties to provide additional and detailed information in support of their policy proposals. Specifically, the Department requires information and comment responding to the following questions:

- (I) Economic Factors in Microwave Licensing Policy
  - (a) What is the total revenue derived by individual telecommunication common carriers, from the intercity carriage of programming signals? What is the net revenue from this service after expenses allowed by their regulator?

- (b) What are the identifiable contributions to economics of scale or to extension of other telecommunications service which individual telecommunication carriers attribute to intercity carriage of programming signals? What are the magnitudes of the contributions?
- (c) What is the total cost to individual broadcasting undertakings for the intercity carriage of programming signals:
  - (i) by unshared private systems;
  - (ii) by shared private systems;
  - (iii) by a telecommunications common carrier?
- (d) What is the total revenue to individual broadcasting undertakings approved by the regulator for the intercity carriage of programming signals?
- (e) What are the identifiable contributions to improvement or extension of service which individual broadcasting undertakings attribute to economies obtained by their operation of unshared or shared private microwave systems? What are the magnitudes of the contributions?
- (f) Should radio licences for private intercity microwave contain a condition limiting the revenues received (from subscribers to programming signals) to the amounts required to recover the costs presented in the application for the licence?

(II) Microwave System Planning and Management Factors

- (a) What planning procedure should be used to preclude the installation and operation of a number of microwave systems for delivery of the same programming signals in a given geographic area?
- (b) What method will best ensure the co-operation and collaboration of licensed broadcasting undertakings in developing shared-use systems whether private or carrier provided?
- (c) Is regional planning of microwave systems for programming signal delivery required to ensure that the location, quality and capacity of trunk routes meets the needs or potential needs of distant communities? What consultative arrangements would facilitate the development of regional plans?

- (d) Is a public announcement of applications for a microwave system, inviting all interested parties to comment on the proposal, required or desirable to disclose planning and management factors or issues?
- (e) What elements of shared-use arrangements and ownership conditions, including degree of control of individual participants should be considered as candidates for Regulations under the Radio Act or as conditions of the radio licence?
- (f) What criteria should be employed to assess the efficiency of the use of licensed private microwave channels when additional channel capacity is requested?
- (g) What elements of service flexibility or lack of service flexibility apply to each alternative?
- (h) Is there a need for the Department of Communications and the industry to adopt standards on the performance and design/operation objectives of intercity microwave facilities that will support a recognized quality of broadcasting service and will provide sufficient flexibility for these systems to be extended?
- (i) An indication of spectrum requirement for intercity television signals carriage would assist the policy review.

(III) Satellite Programming Signal Delivery Factors

- (a) What principles should be applied to the consideration of a microwave licensing application to determine whether satellite delivery of programming signals would contribute to a more orderly development and operation of radiocommunications in Canada?
- (b) Will a regional microwave system planning process provide adequate consideration of satellite programming signal delivery alternatives?
- (c) What additional technical, economic and social criteria are required to assess whether a satellite or microwave alternative would be preferable?



Any potential applicant for a microwave relay licence, any supplier, user or potential user, and any other interested person, through an association or otherwise, may make written representations to the Department of Communications concerning the above issues or any other matters related to the review. It is advisable that any person or organization making submissions be familiar with the Interim Report.

Submissions should be addressed to the Director General, National Telecommunications Branch, Department of Communications, 300 Slater Street, Ottawa, Ontario K1A 0C8, and, to ensure consideration, must be postmarked on or before October 19, 1981, or received by other means by the same date. All representations must cite the Canada Gazette, Part 1 publication date, and the Notice reference number.

Comments received in response to this Notice will be made available for public viewing at the Department of Communications' Library, 300 Slater Street, Ottawa, and at the Regional Offices of the Department in Vancouver, Winnipeg, Toronto, Montreal and Moncton. Also, copies of the Interim Report on the first call for comments can be obtained from these Offices of the Department of Communications.

Dated at Ottawa, this 15th day of August, 1981

V. Hill  
Director General  
National Telecommunications Branch  
Department of Communications