Review Of The Public Message Telegraph Service In Canada

Department Of Communications

Ottawa, 1970

DEPARTMENT OF COMMUNICATIONS

A REVIEW OF THE PUBLIC MESSAGE TELEGRAPH SERVICE IN CANADA

INDEX

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1. Objectives of the Study

When announcing this study on January 20, 1970, the Minister of Communications stated:

> "Two years ago with the approval of the Canadian Transport Commission, CN and CP entered into an agreement regarding telegraph services, which would provide for the withdrawal of one company or the other from a number of specific centres throughout the country. This action was sought because there had taken place over the past several years, a major decline in the demand for telegraph services due to the increasing use of the telephone by the public and use by business of other telecommunication services, such as telex and private wire. In view of this development, both companies considered that the public interest and the provision of effective and efficient telegraph services would be best served by the establishment of areas of exclusive operation for each company.
>
> Following the foregoing action, a number of other measures were adopted by the companies further to improve the efficiency of their operations. These consisted of consolidating a number of offices and reducing the night hours during which some others would remain open.
>
> During the past year, a number of enquiries and questions have come to my attention in which the public and the business community have expressed dissatisfaction with the services now being provided. Considering these facts and the need for more information I have decided to launch this inquiry."

It is common knowledge that the public message telegraph service is steadily losing traffic to other telecommunications means and is not economically self-supporting, a situation applying not only to Canada. It is therefore necessary to review all aspects of this service, including the standards followed, how it relates to other public telecommunications, what the public interest is in an efficient telegraph service now and in the future and what changes in government policies and regulations may be appropriate.

A special study on northern telecommunications is being conducted under the Telecommission and a report will be available in the fall of this year. Therefore this review does not deal with the special problems found in that part of Canada.

In making this review the department consulted with the following:

- CNR (Telecommunications Division)
- CPR (Telecommunications Division)
- Canadian Overseas Telecommunications Company
- The United Telegraph Workers
- Department of Consumer & Corporate Affairs
- Canadian Transport Commission
- the Managing Editors of several newspapers.

Acknowledgment is made for information and assistance given to the study team and particularly to the telegraph companies for written submissions and for the opportunity to study their plant and operations.

2. Description of the Domestic Telegraph Service

2.1 Early Developments and Recent Trends

Sending messages by telegraphy is the oldest public telecommunication service in Canada. Traditionally developed in connection with railway operations, it was also offered as a service to the public and various small companies grew up for that specific purpose. One of these, the Great Northwestern Telegraph Company, was founded in 1880 and, becoming bankrupt in 1915, its service was continued by the federal government and so contributed to the present Canadian National Telecommunications.

By the 1930's the CN and CP railway companies had become the principal providers of the public telegraph service. They also provided the majority of Canada's early transcontinental private wire services. "Private wire" denotes a class of telecommunication in which facilities are placed at the disposal of the lessee for long periods of time to meet his special needs. These services were used first by the CBC and later for weather, air traffic control and many other business and government purposes; in many cases during the 1930's the companies began providing them on a joint basis. However they continued to operate their public message telegraph services competitively, including the maintenance of separate offices at some 70 locations, until, in the face of diminishing revenues and rising costs, they agreed in 1967 on a plan for the reciprocal abandonment of offices. Prior to introducing this plan the companies had sought solutions to their problems by operating joint telegraph offices at some locations while generally maintaining their competitive status. Twenty offices were operated on this basis but the results were unsatisfactory, the principal difficulties being staff problems and the proper sharing of costs and revenues.

Cooperation between the CN and CP Telecommunications Systems in the private wire field has continued to develop, based on a formal agreement entered into in 1947. Other similar agreements have been reached, notable among these is the one governing the jointly-operated Telex service in 1957.

The success of these services has to some extent been responsible for the reduction in the use of the public telegraph service. Also, the growth in the use of the telephone has resulted in the decline of the social as distinct from the business type of telegraph traffic. These were roughly equal in 1954, but the social component (of a greatly reduced total) had dropped to 20% by 1968.

Over the past 15 years, telegraph usage has been falling off at an average rate approaching 5% per annum. If this statistic is combined with a population increase of about 25% over the same period, it can be concluded that the incidence of telegraph usage is now about 1/3 of the level 15 years ago.

Thus we see an evolving situation in which new means of telecommunication (and the airmail service) are taking the place of older services. Nonetheless, the companies believe that there will continue to be, for the foreseeable future, a "hard-core" demand for the message telegraph service.

The telegraph service has been plagued with financial losses each year for some considerable time. It is doubtful that it was ever lucrative enough to have earned an adequate rate of return. According to company records, the combined CN and CP message telegraph deficit is running well over $2 million per annum. The CN losses are higher than those of the CP, perhaps reflecting a more wide-spread operation and a policy of maintaining public service aspects to a greater extent than is the case for the private company. The telegraph service losses are carried by the revenue from the other telecommunication service offerings of the companies. In the case of the CN, for example, the message telegraph revenue is approximately 10% of their total telecommunication revenue.

2.2 Statistical Information (From Company records or DBS)

Number of Domestic and U.S.A. Telegrams

Year	CN	% Decrease	CP	% Decrease
1960	9,616,000		5,752,000	
61	9,454,000	1.6	5,517,000	4.1
62	8,936,000	5.4	5,357,000	2.9
63	8,210,000	8.1	4,983,000	6.9
64	8,025,000	2.2	4,818,000	3.3
65	7,936,000	1.1	4,778,000	.8
66	7,249,000	8.6	4,138,000	13.4
67	6,525,000	9.9	3,891,000	5.9
68	6,036,000	7.4	3,584,000	7.9

Average rate of decrease over the period: 5.5%

Types of Domestic Messages	CN	CP	(For 1968)
Business	85%	82.9%	(In 1954 business and
Social	15%	17.1%	social messages were approximately equal)

Note: Press messages included in the above represent about 25% of all messages.

Number of Overseas Cablegrams

1967 - 3,100,000

1968 - 3,286,000

Revenue and Expenses from Telegraph Operation (Expenses are based on an approximate allocation of cost among all telecommunication services)

	Company	Year	Amount	
Revenue	CN	1969	7,779,798	
Expenses	CN	1969	9,511,456	
Deficit			1,731,658	*
Revenue	CP	1968	7,101,518	
Expenses	CP	1968	7,656,108	
Deficit			554,590	x

* Before providing for depreciation and maintenance

x 1969 amount not available but is expected to exceed one million dollars.

Number of Public Offices

Year	CP	CN
1960	1506	3806
61	1309	2316
62	1189	2311
63	1145	2157
64	1046	2099
65	952	1953
66	827	1638
67	796	1176
68	579	948

(The major part of this reduction represents the closing of one-man, railway-agent offices)

Statistics Applicable to the 1967 Reciprocal Abandonment Plan

	Offices Closed	Employees Laid Off	Employees Transferred from one Company to the Other
CP	43	9	225
CN	34	38	217
Total	77	Total 47	Total 442

	Employees Retired	Employees Taking Severance Pay
CP	-	130
CN	15	78
Total	15	Total 208

Other Statistical Trends

-- From 1961 to 1968 the total number of employees engaged exclusively in the telegraph service dropped from 9997 to 8687.

-- The airmail has virtually eliminated the domestic telegraph night letter business.

-- Labour now accounts for 80% of all operating expenses.

-- Telegraph traffic from small business firms has become the backbone of the service.

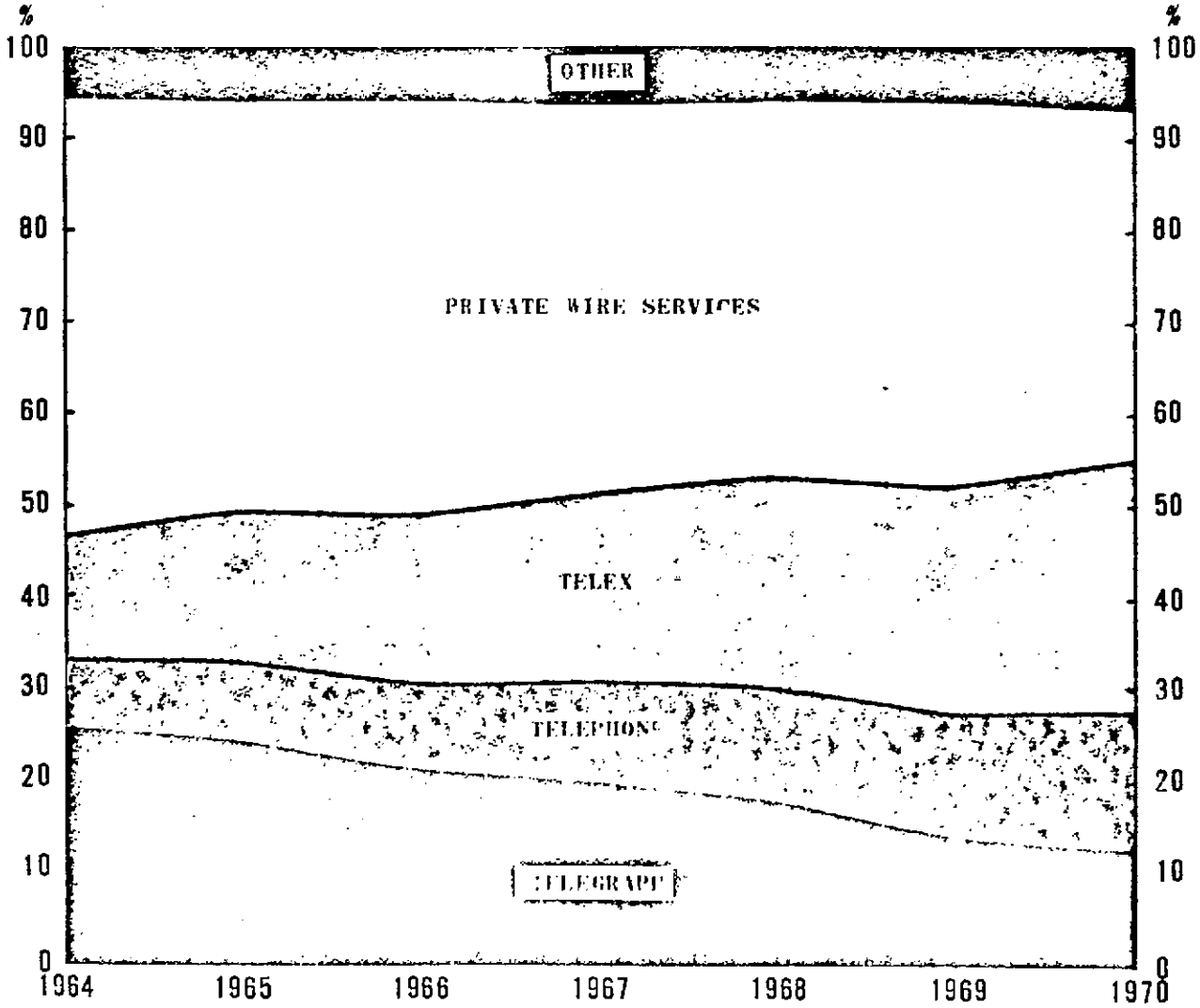
-- 1954 was the peak traffic year.

-- Only 10% of the traffic is now received over the counter; the balance is via telephone or telex.

-- Money transfers by telegraph represent only a small percentage of total traffic but are significant in that they showed a persistent tendency to increase between 1960 and 1968. Comparing these two years, the number of money transfer messages rose from 265,000 to 334,000 - or from 2% to 4% of the total. The value of the money transferred rose 17.9% from 1967 to 1968.

TELECOMMUNICATIONS

COMMERCIAL REVENUES BY TYPE OF SERVICE



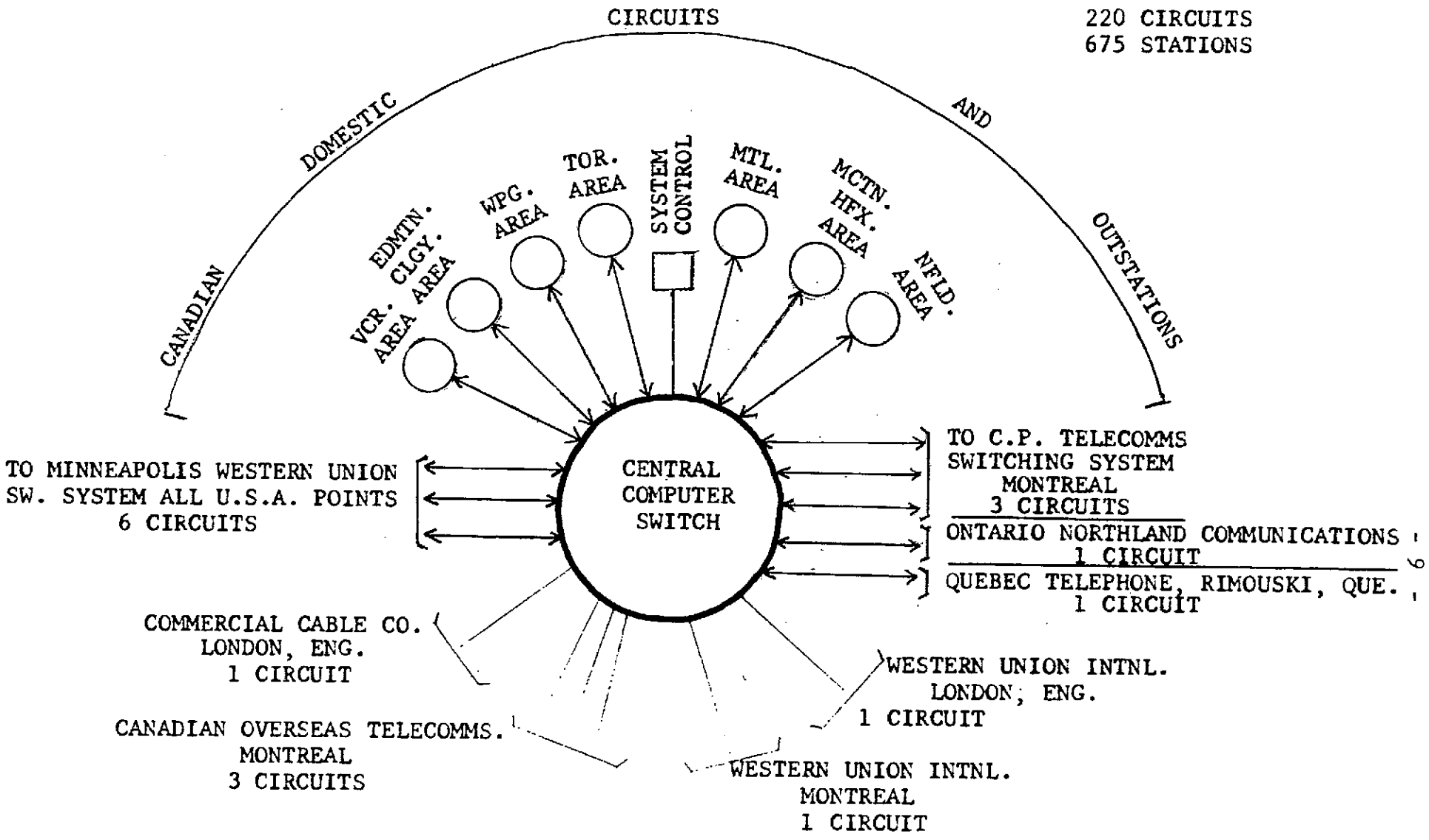
2.3 Recent Modernization

Both companies have undertaken extensive modernization of the message switching and transmission functions. They now operate radial networks centred on Toronto for CN and on Montreal for CP. The CP service uses a conventional manually controlled, but highly automated, switching system, with perforated paper as message storage. The automatic CN switching system is computer-controlled and uses computer-type digital message storage on magnetic discs. Messages are transferred to magnetic tape for the statutory long-time storage, but are held in the rapid-access disc storage long enough for queries about transmission errors to be resolved. CP has no immediate plans to convert to a similar method of operations but they do have sophisticated computer handling for some of their private wire networks. This may be introduced in the telegraph system at a later date.

A backbone transmission system of modern microwave relays forms a trans-Canadian facility, jointly owned and operated by the two companies under agreements dating from 1961. In addition to carrying the public telegraph networks, this transmission system also provides radio and television program linkages along with telephone, private wire, telex, broadband data services, etc.

The two star-connected public telegraph networks are themselves interconnected so as to provide automatic routing of messages within the combined CN and CP systems. The network diagram on page 9 shows, for example, the CN domestic telegraph network with its connections to the CP switching centre at Montreal, the Western Union switching centre at Minneapolis, serving the continental U.S., and the overseas cable companies.

In summary, for telegraph purposes Canada is served by completely modern transmission and automated switching facilities.



THE MESSAGE TELEGRAPH CENTRE OF THE CNT IN TORONTO

2.4 Customer Access to the System

The traditional links between the public telegraph network and the customers consist of the acceptance of the message in written form at the sending office and, at the receiving end, messenger delivery from the nearest office on the network. These practices are manpower intensive and their efficiency generally is in striking contrast to the up-to-date handling of the message, once encoded.

The companies' search for a more economic interface has concentrated mainly on the use of the telephone for both the receipt and delivery of the message. When the telephone is used for delivery, a confirmation copy is sent by mail when the recipient wishes to have this service. A CP sampling study showed that approximately 65% of traffic now is handled by telephone at the terminals, against approximately 15% handled in the traditional manner. The remainder is via other means, mainly Telex. The reciprocal abandonment of public offices under recent agreements (described later) will place even greater dependence on the telephone as the principal method of access to the system by the public.

CN are currently experimenting with a more efficient scheme of handling telephone inputs. It uses computer storage and cathode-ray tube (TV-style) displays on which the operator, while on the telephone with the customer, can compose the message, make corrections quickly, re-call an earlier message, etc., and then release it for automatic handling to destination.

The companies list a number of difficulties in the use of the telephone as a means of receiving and delivering telegrams:

> Where inter-city telephoning is involved, the companies must pay toll charges (usually Zenith circuits), even when the call is of an enquiry nature only.

The telephone companies, as a feature of their normal interconnection rules, do not permit railway-owned transmission circuits to be used as a substitute for inter-city telephone company-owned toll circuits.

Collection is more difficult; bad debts written off run between one and two per cent of gross revenue.

Confirmation copies usually are required by the recipient of the message.

A significant and growing proportion of telephone subscribers have unlisted numbers.

For those in the business community who subscribe to Telex, telegrams are received from and delivered to the nearest telegraph office by this means. Also, when a Telex customer wishes to send a telegram, there is an alternative service available, known as Teltex. He can send his message by Telex to the telegraph office nearest to his addressee, from which office the company delivers it in the same manner as an ordinary telegram and makes a suitable delivery change.

The after-business-hours delivery of telegrams to the business community can be a costly process. The telegraph companies normally are asked to maintain long lists of persons to whom messages may be phoned. However, reaching someone on the list can be time consuming.

2.5 The 1967 Reciprocal Abandonment Plan and other Expense Reduction Measures

Over the years the companies, through various joint and independent measures, have endeavoured to lower the expense of operating the message telegraph services. None of these measures however had improved significantly the deficit situation, so in 1967 they proposed the introduction

of a more sweeping change. This contemplated the complete elimination of duplicate service in any single area. In accordance with a proposed agreement, each company would withdraw its services in accordance with arrangements which ultimately could leave only one company in each location.

Because the Canadian Transport Commission, pursuant to the Railway Act, must approve all operating Agreements entered into by companies subject to their jurisdiction, this new "reciprocal abandonment" agreement between CN and CP was submitted for approval. The Commission decided in favour, having concluded that the plan was a prudent one, noting however that the companies had stated that no deterioration of service would be encountered by the public nor would higher charges result.

The plan is now fully in effect and over 70 offices have been closed as a direct result. However it has not been carried out without some difficulties. To assess these problems it is important to recognize that the reciprocal abandonment plan was implemented at a time when there was also in progress two other important programs:

1) a continuing reduction in the number of telegraph offices, and their hours of business and,
2) in the case of the CN the automation of the telegraph service with the aid of central computing facilities.

So far as the first-mentioned program is concerned, it should be realized that, unlike the railway case, CTC approval is not required when telegraph offices are closed or when the service otherwise is modified or curtailed. (The CTC role is discussed in Section 6.). In fact, it seems that the companies are free to abandon the whole service if they independently so decided. Thus, without any CTC intervention, the companies were already embarked on a long term continuing program of

closing offices at the time when the reciprocal abandonment plan was implemented. The statement made by the companies that the plan would not result in deterioration of the service therefore has to be seen against this ongoing program of closing offices when their traffic volume has fallen to low levels.

As a feature of the continuing program to close offices, the companies do all possible not to impair access to the system. When an office of long standing is closed, the companies state that in accordance with their policies, arrangements are made for the public to phone, at no extra cost, to the nearest office. In one sense, there is involved in this alternative a curtailment of service because the public can no longer transact business over the counter; also, in some instances the customers are confused about how to proceed. On the other hand, for some customers the telephone alternative represents a more convenient means of access.

Referring now to the introduction of automation, the experience of the CNT in changing over to computer switching and message storage was responsible for many delays and losses in message handling. Failures in disc drive mechanisms led to catastrophic situations in which messages simply disappeared from the system. This trouble recurred at intervals between April and June 1969 until finally it was diagnosed and corrected.

Another source of difficulty, attributable directly to the reciprocal abandonment plan, was an unexpectedly large loss of trained company personnel in Toronto and Montreal. This loss probably was due to several factors such as favourable severance payments, fears concerning job security, reluctance to transfer to the remaining company or to move to the other city, etc. Ultimately the difficulty was overcome through an intensified recruitment and training program.

3. The Overseas Telegraph Services

The overseas telegraph services are handled mainly by the Canadian Overseas Telecommunication Corporation of Montreal (a Crown Company) with lesser proportions being provided by Western Union International and the Commercial Cable Company (companies having their headquarters in the U.S.A.). Except for a special pick up and delivery service by COTC in Montreal, the CNT and CPT act as interconnecting carriers for the extension of these overseas services to the public at large in Canada. Interchange agreements govern the proportions of traffic handled by all of the aforementioned companies.

It is not intended in this report to make an appraisal of the overseas services because such would have to include a study of the handling arrangements in effect in the many foreign countries to which Canadian traffic flows. Also, the complaints regarding this service have been of a limited nature. However a few observations on the overseas service may improve the usefulness of the report.

As in the domestic field, the newer telecommunication services such as Telex, data and telephone, are absorbing the major part of the large growth in the demand for overseas communications; the growth rate for Telex across the Atlantic for example currently is exceeding all estimates and is approaching 50% per annum. Unlike the domestic situation however, the overseas telegraph traffic is also increasing.

The telegraph facilities of the COTC are highly automated, using computer control, storage and retrieval, and the links with the domestic system are efficient. Problems that gave rise to complaints, which were during 1969, related mainly to the CNT computer. The other complaints were the result of the delivery and pick up difficulties in Canada and, more particularly, in the various overseas countries. Generally speaking these countries are experiencing the same problems as Canada, in maintaining good domestic telegraph service in the face of rising expenses and declining revenue.

4. Comments on Complaints Received

Complaints have come to the attention of the Department of Communications regularly over the past year or so, particularly in 1969; however they have now fallen to a low level. Generally speaking the public complaints have related to the closing of offices, to the reduction of hours of business and to delays in message delivery. Their origins are uniformly spread geographically, with no area being specially prominent.

The union representing the employees of CNT and CPT also has expressed its concern for the manner in which it feels the companies are allowing the service to deteriorate and for a failure on the part of the companies to consult with them before making changes. Further, in their view the companies have not made any effort to stimulate the use of telegrams. Union complaints also mention inadequate employment protective measures when changes are made, but labour relations matters are not considered to be within the terms of reference of this review. The companies contest the union's assertions and interpretation of their policies.

Complaints relating to offices being closed or their hours being reduced, stress the inconvenience caused and express the view that the companies are not living up to their obligations as providers of a monopoly service. The complainants say that the alternate free telephoning arrangements are not an adequate substitute, noting, for example, that it is often difficult to discover the correct phone number to use. They feel that the companies have not made a sufficient effort to give adequate publicity to the changes, leaving the impression that it is a corporate policy to run down the telegraph service as rapidly as possible.

Worthy of special mention are complaints pertaining to the transfer of money by telegram. This facility, while principally serving small businesses, has long been a means of moving personal funds, outside of

banking hours. The reduction in telegraph office hours has denied this service to the general public in many areas.

Underlying some of the complaints about office closing and reduced hours is a feeling that the community concerned has been downgraded.

The complaints concerning delayed delivery or loss of messages have related mainly to the period when the CNT was experiencing the problems with their computer, i.e., during mid-1969. Others had to do with overseas telegrams and usually involved delivery difficulties in the foreign country.

Complaints have been received from the press, concerning for the most part the reduction in office hours. A special discussion on the press communication situation appears in the next section.

5. The Press and Communications

At the outset it should be said that the response of the press to the departmental study of the public telegraph service has not been overwhelming. Some individual reports and complaints were received but no statement of consensus was possible. This lack of consensus reflects the fact that newspapers are still very individualistic in their approach to common problems and also that very few of the 120 or so dailies in Canada are really dependent on public message telegraph services for the transmission of out-of-town copy.

The main users of public telegraph services are the major dailies in cities like Toronto, Montreal, Vancouver, Quebec, Winnipeg and Calgary. The main sources of press traffic are cities like Ottawa, Montreal, Toronto, Winnipeg, Victoria and Halifax. All provincial capitals are sources of some press traffic.

The Canadian Press, a cooperative owned by the member papers, transmits most of its copy over leased private wires to teletype machines located in newsrooms. Larger newspapers also have CN/CP machines in their newsrooms which connect to public telegraph facilities.

Until a decade ago the public telegraph services were the most important link between out-of-town reporters and the newsrooms of major Canadian dailies. However today the elimination of counter service in many parts of cities and the early closing at remaining counters at night means in effect that public telegraph service is no longer always available to the press when it needs it and this is the main item of press complaint. It is unrealistic to suggest that reporters can dictate hundreds or even thousands of words of copy to a remote telegraph office over the telephone.

Consequently major newspapers are relying more and more on telephone lines for the transmission of copy directly to their offices from remote

points. The increasing dependence on telephone lines has led to the rental of dedicated telephone lines between Ottawa and Toronto and Ottawa and Montreal for major papers in both cities.

In addition to oral transmission of copy by telephone, many newspapers are using other devices for transmitting hard copy between major news centres and their newsrooms, such as facsimile and Telex/TWX.

Despite the changing pattern of press communications, there is still a heavy telegraph traffic from some important news centres. This is reflected in the fact that both CN and CP maintain special press facilities in their Montreal and Toronto message centres. They also maintain agents in or near most press galleries in Canada. However the days when telegraph companies sent agents on campaign trips or to special events, are gone.

Even though newspapers are being forced into new modes of communication, which often cost more, there is little acceptance of the idea that the one-sixth press telegraph rate might be increased. (The Press pays at a rate equal to one-sixth of the regular public rate in Canada. In the U.S.A. it is one-third.)

In the international field there are few complaints, except where Canada-U.S. traffic is concerned. In all Commonwealth countries the "penny-rate" per word still applies to press telegrams and whenever possible, Canadian newspapers use it. It should be noted that very few Canadian newspapers maintain staffers outside North America.

The Canadian Press has not engaged in a large-scale transmission of non-Canadian Press copy to member papers, the way such agencies as Reuters have done. If it were to do so, this action should not pose any serious contractual problems with the private wire suppliers, because the Canadian Press is a cooperative and would be merely obtaining an additional service for member papers.

In summary:

-- While the press in the past has depended heavily on the message telegram, it now largely has turned to alternative telecommunications services.

-- If counter service were more widely available, there would be greater patronage.

-- It is unlikely that press traffic will have a significant effect on the economics of the service, even with an upward adjustment in the preferential rate.

6. The Role of the Canadian Transport Commission in relation to the Telegraph Service and the Regulatory Situation Generally

The Commission is the body responsible, under theRailway Act, for the regulation of the public message telegraph services that are provided by companies subject to the jurisdiction of Parliament. These include the Canadian National Railway and the Canadian Pacific Railway, as the principal providers through their Telecommunications Divisions, together with a few much smaller operations. The Commission's jurisdiction essentially extends to the approval of rates and tariffs, operating agreements with other telegraph and telephone companies, the avoidance of discrimination, certain interconnection arrangements and to investigating complaints with respect to these matters. It does not extend to controlling the standard or the adequacy of the service, and hence the Commission's approval is not required when a company decides to close an office or reduce the hours of business. At the same time, a substantial change in the service could well cause the Commission to decide upon a further examination of the rates. Nevertheless as matters now stand the Commission would still have no direct control over the level of service being rendered.

The Commission's jurisdiction in the public telecommunications field has always been of a limited nature compared, for example, to that exercised by some provincial regulatory bodies. While Parliament in recent years has given much attention to the transportation role of the Commission it has left their telecommunications responsibilities virtually unchanged except for the recent passage of Bill C-11, an act designed to bring within the regulatory purview of the CTC the private line offerings of the companies subject to its jurisdiction, and for certain amendments in 1968 to the Bell Canada Act. With the formation of the Department of Communications and the institution of wide ranging studies under the Telecommission it is to be expected that government proposals will be made to Parliament for revised telecommunications legislation. It would seem prudent to include, with suitable safeguards for the financial position of the companies being regulated, a degree of control over the level of services provided.

7. Discussion

7.1 An Appraisal of the continuing need for the Telegraph Service

The telegraph companies are convinced that, despite the steadily diminishing traffic volume, for the foreseeable future there is a "hard-core" demand which only the telegraph service, or some variation of it, can satisfy. They argue that small businesses consider "hard copy" messages to be essential. Also, certain communications, such as tender bids, if they must be handled by telecommunication to meet deadlines, have the necessary legal status only when sent as a telegram or by facsimile.

As an alternative to the mail and the telephone during periods of strikes, or in other emergency situations, the telegraph service can be important. Because it can be provided, between principal cities at least, relatively independently of these other services, its existence contributes to strengthening the total telecommunication system of the country.

The demand for transferring money by telegram shows a persistent tendency to increase in terms of number of messages and more particularly in terms of the amounts handled, the latter increase being something like 18% between two recent years. This seems to be meeting a need on the part of small businesses. The telegraphic transfer of money by the public for personal purposes is quite low in volume, however it is a service that the public expects to be available and which draws complaints when offices are closed during nights and weekends. The money transfer service probably is significant also in relation to the growing tourist industry in Canada.

Undoubtedly a certain proportion of the demand for telegraph service stems from a natural tendency of the public to follow a traditional pattern and not to take the time to explore alternatives.

All of the foregoing needs tend to be residual in character; it would appear that in the long run, a nation-wide network to support them will become increasingly uneconomical.

7.2 Financial Considerations

The companies intend to continue their efforts to apply expense reduction measures and these measures are such that further extension of them will result in a reduction in the level of service. Further, the companies are convinced that a general rate increase would only accelerate the rate of traffic loss and thus not improve revenues. A trial promotional campaign to increase the telegraph traffic was conducted recently in one metropolitan area with nil results.

This situation naturally raises the classical question of whether subsidies should be introduced, as in the passenger rail case, or whether the other, more lucrative, services of the company should continue to carry the telegraph losses. Cross-subsidies of this latter nature of course are not uncommon in the public telecommunication business both among services and among geographic areas. At least until general telecommunication policies indicate a different solution, there does not seem to be any practical alternative to the present practice.

The companies have said that the cost of phoning telegrams would be significantly reduced if their otherwise spare inter-city trunk lines could be connected with the intra-city switched networks of the telephone companies, to save the cost of the trunk lines now provided by the telephone companies. Telecommission studies now underway on the whole wide range of interconnection problems may indicate whether such is reasonable and where the public interest lies.

7.3 Operating and Procedural Practices

Without doubt the area that needs the greatest attention is the interface between the transmission mechanism and the public. To

paraphrase the New York Times, if the telegraph company drifts into the practice of accepting all messages via telephone and delivering them in this inadequate fashion, with confirmations via mail, who needs the telegraph company? It is interesting to note that Western Union recently introduced into their telegraph service offering, guaranteed messenger delivery of telegrams, for a suitable extra charge.

In reviewing the Canadian situation it is apparent that the pace of the reduction in offices and office hours and the introduction of alternate procedures has left large segments of the public confused and also apprehensive about the continued availability of the service. It can be concluded that the companies have not taken adequate steps to acquaint the public and their special customers, such as the press, with the changes and the revised procedures to be used for filing telegrams. In continuing a viable telegraph service it is essential that improvements be made in customer relations. The companies deserve credit for providing one of the most modern telegraph systems in the world, which should be matched by a sense of responsibility for the total service package.

The delivery of telegrams will continue to be a costly process. As more businesses subscribe to Telex, the efficiency of delivery to that important segment of customers, will improve. However, for the individual in his home who is only a casual user of the service, there is foreseeable no means of improvement. The day when each home will have apparatus capable of printing out messages, news and general information, will come, but probably only after the telegraph service has been completely superseded.

When a telegraph office is closed it is not possible to transfer money by telegram. If the lack of complaints can be taken as an indication, small businesses do not seem to be affected by this curtailment in service, but it represents an inconvenience to the public at

large. The companies have explained that they already incur significant losses through fraudulent activities and that any attempt to continue the money transfer service by the use of the telephone would expose them to even greater losses. Also, they feel that the incidence of use by the general public is so low that it is quite unreasonable that the money transfer requirement should be a major factor in their decision to reduce office hours. In the absence of a clear economical solution it would seem that more reliance will have to be placed on alternative means, i.e. bank transfers, money orders and credit cards. Nonetheless the question could well be pursued further by the companies. For example, arrangements could be explored with the operators of other utility counters who maintain longer hours of service.

7.4 The Telegraph Service Viewed in the Context of the Total Communication Service

There is a rapidly growing demand for distant communications among people and machines. The fact that the telegraph service is not sharing in this growth but is declining, emphasizes its less vital nature in the eyes of the public. It is natural therefore to consider whether deliberate measures should be adopted to accelerate the transfer of customers to the many newer forms of communication.

The telephone has achieved almost 100% penetration into homes and business premises and its instant accessibility and regulated charges have established it as the principal means of telecommunications among people. It can be expected to absorb an increasing quantity of the type of traffic that the telegraph is now carrying. Because the telephone service is provided for the most part by enterprises which the telegraph companies regard as their competitors, there is a natural reluctance on their part to encourage the use of the telephone as a complete alternative.

The newer alternative services provided by the CN and CP companies themselves present a different aspect. Among these, Telex is the principal service that may be viewed as an alternative. It has the same functional characteristics as the telephone, i.e. duplex equipment, for sending and receiving, installed in each subscriber's premises, with on-demand direct-dialling capability to other subscribers. Telex is in a period of heavy growth with the number of subscribers increasing at about 18% per annum. In general Telex is too costly for the small businesses that represent the principal remaining users of the telegram. However these costs are likely to be reduced with technological development and this would seem to be a fertile field in which to conduct research. A continuing study on the opportunities for Telex cost reduction also would be a useful project.

Other alternative telecommunication services include TWX, offered by the telephone companies and operationally very similar to Telex, several forms of facsimile transmission and various private line offerings by both CN/CP and the telephone companies. They can all be expected to play their part in catering to the need for communicating in printed message form.

Finally, the alternative forms of communication include the mail service. It has been noted that the night letter telegram within Canada cannot compete with air mail, but the postal system, like the telegraph service, faces financial problems and for much the same reason. Its traditional manner of doing business is manpower - intensive and the maximum practicable amount of automation is unlikely to have the full desired effect on its operating economics. However, there are, within the first class letter mail, certain sub-classes which are attractive for consideration for conversion to telecommunication, with transmission taking place on networks such as those owned by the telegraph companies. Improvements of this nature could result in the mail

service absorbing a further component of the demand now placed on the telegraph service and could initiate a socially desirable blending of the mail and telecommunication services. Studies on these opportunities are being put in hand by the department and this approach should be encouraged.

8. Conclusions and Recommendations

1. The overall picture is one of a service for which the demand has steadily decreased at a rate in excess of 5% per annum and which is operating well below the financial break-even point. Some of the actions taken by the companies, in the interest of more economical operation, tend to accelerate the decline, but the falling off in demand is fundamentally due to the inherent inability of the service to compete with the more efficient and universally available means such as the telephone and newer services like Telex.

Currently the demand for service is declining toward a level representing the basic need (a) of small businesses for a printed message service and (b) of the public at large for certain occasional social communications and for money transfers. Alternative methods of meeting these basic requirements must be expected to emerge and, while the rate of decline may change, it is likely to continue unless other functions can be identified for the facilities. The facilities are modern and efficiently managed.

Complaints which the department receives, relating to the quality of the service, now have fallen to a low level.

2. For the foreseeable future, continued provision of the public message telegraph service, in its present nation-wide form, is necessary and socially desirable, Because of the fluid situation, there should be on-going Government surveillance with a view to facilitating changes that appear desirable in the interests of both the public and the companies. For example, during the course of this review those participating were impressed by the high degree to which the companies are cooperating generally in providing joint offerings and in sharing their telecommunication facilities. This co-operation seems to have been beneficial in terms of improving efficiency. It does raise the question - beyond the scope of this review - whether it could usefully be extended, even to the establishment of a single management structure.

3. When introducing changes in procedures for message acceptance and delivery, or which otherwise involve relations with their customers, the companies should give much more attention to achieving adequate publicity so that the transition can take place smoothly and with a minimum of inconvenience. Also, prior to making such changes the companies could consult more extensively with major customers, municipal councils and their employees' union to receive their advice on public service aspects.

4. If and when new comprehensive telecommunications legislation is introduced, it should give to the executive or appropriate regulatory body a suitable degree of authority to examine into and prescribe adequate standards of service, subject to measures that will protect the financial integrity of the companies.

5. No suggestion has been made to the department that subsidies be paid in direct support of the telegraph service; it is doubtful that such would be appropriate, given the degree of economic stability that appears to prevail in the total telecommunications business of the companies.

6. Studies should be undertaken to determine whether improvements can be made in the cost-effectiveness of some of the alternative communication services, such as Telex. Studies have been initiated on possible new forms of mail service.

7. In the special case of transferring money by telegram, the companies, in order to deal with the problem of continuity of service when telegraph offices are closed, should explore arrangements with operators of other public utility counters. In addition, there are available to the public the alternatives of bank transfers, money orders, credit cards, etc.

8. The companies should consider allowing the Canadian Press to use its private wire leased network, in various ways, to provide additional communication services between member papers and their reporters.

9. The Telecommission studies are expected to indicate where further improvements might be made with respect to a wide variety of telecommunication service offerings. Such improvements could affect the telegraph service either directly or indirectly.

Ottawa, June, 1970.