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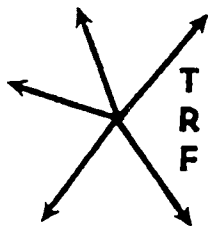
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**CANADIAN TRANSPORTATION
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Multi-Jurisdictional Joint Transportation Planning The Federal Government and Canada's Maritime Provinces

by *Wayne Kauk**

ABSTRACT

This paper focuses on a unique example of the multi-jurisdictional planning process by the Government of Canada and the three Maritime Provinces of Nova Scotia, New Brunswick, and Prince Edward Island. After describing the transportation system, it discusses this federal-provincial planning exercise, its particular achievements, and problems.

There is a need for comprehensive multi-jurisdictional planning to deal with a dynamic transportation system, to resolve major system issues, to attain commitment to change sensitive transportation programs, and to achieve co-ordinated regional development goals.

In multi-jurisdictional planning there must be a well-structured and agreed-upon work program as well as common factors analysis to define points of agreement, commitment-free think-tank sessions, clear identification of issues and options and tight communication with decision making while still retaining a planning perspective.

INTRODUCTION

A great variety of joint federal-provincial studies has been undertaken in Canada on transportation policy and program issues, services and facilities. However, the planning process described in this paper is unique in that it involved a comprehensive regional transportation planning exercise undertaken co-operatively by Canada's Federal Government and three Provincial Governments.

Canada, as a confederation, separates jurisdictional responsibilities between federal and provincial governments. Given the country's economic geography, with Atlantic and Western peripheral regions and a major central Canadian industrial and population concentration, a predominant concern about transportation is hardly surprising. In Western Canada the focus has tended to be on rail freight rates, especially concerning grain. In Central Canada jurisdictional issues have tended to predominate. Across the country, major infrastructure projects such as the Trans-Canada Highway of the '50s and '60s have had a federal-provincial focus.

Newfoundland's concerns have been marine ferry

services and its unique narrow-gauge railway system.

The three Maritime Provinces are an effectively organized peripheral region in the area of federal-provincial relations. Over the last two decades the four governments concerned have established a strong partnership in transportation decision making through major programs on areas such as regional freight subsidies and highway strengthening/improvement programs.

In early 1982 these four governments agreed to undertake a comprehensive regional transportation planning exercise including all major services and infrastructure. The joint intent was to set the future directions of a major regional transportation system serving the intercity freight and passenger needs for a region of 1.5 million people. The end result was to include an assessment of the possible reallocation of resources among transportation programs costing almost \$1 billion each year.

The paper focuses on the experience gained from this multi-jurisdictional joint planning process and some resulting suggestions as to how such a process can be improved and strengthened.

THE MARITIME PROVINCES TRANSPORTATION SYSTEM

The Maritime Region, as shown in Fig. 1, consists of the island province of Prince Edward Island (PEI), the peninsular province of Nova Scotia and the mainland province of New Brunswick. Crescent-shaped, PEI is 120 miles long and from 3 to 40 miles wide. It is separated from Nova Scotia and New Brunswick by the Northumberland Strait, which is from 9 to 25 miles wide. The province of Nova Scotia has been aptly called the wharf of the North American continent. It is about 381 miles long and from 50 to 100 miles wide. Separated from the continental land mass in the south by the Bay of Fundy and in the north by Northumberland Strait, Nova Scotia is connected with it by the Isthmus of Chignecto, less than 20 miles wide at its narrowest point. It consists of two major parts—the peninsula of Nova Scotia and the Island of Cape Breton. New Brunswick has a shape which is roughly rectangular, less than 200 miles from north to south and 160 miles wide.

Table 1 illustrates that the population of the Maritimes tends to be quite dispersed with about 33% living in rural areas and another 12% in ur-

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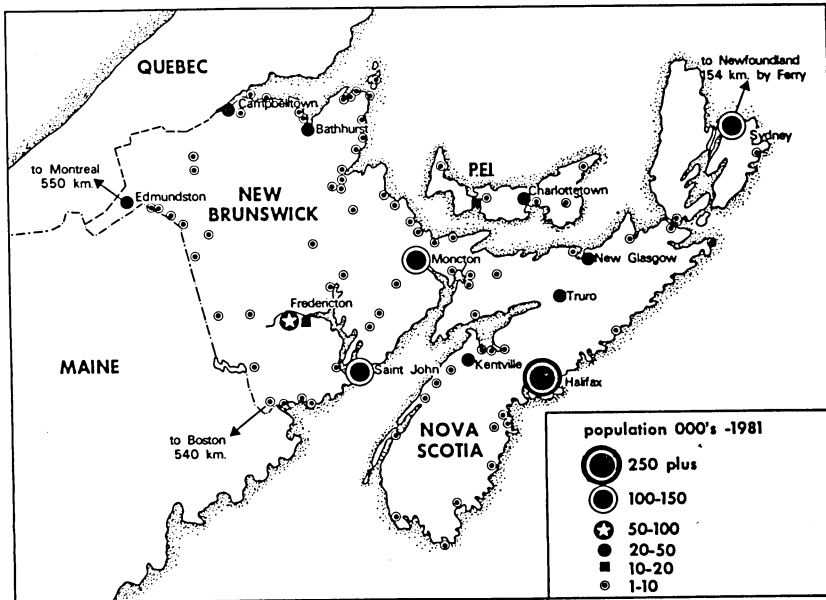


FIGURE 1. Maritime Provinces.

TABLE 1

DISTRIBUTION OF POPULATION IN THE MARITIME PROVINCES BY URBAN AND RURAL REGIONS — 1981

	N.S.	N.B.	P.E.I.	Total
Urban Regions				
Over 250,000	277,727			277,727
100,000-150,000	122,837	212,402		335,239
10,000-100,000	100,083	139,743	59,949	299,775
1,000- 10,000	76,691	116,900	8,201	201,792
Rural Regions	270,104	227,358	54,356	551,818
TOTAL	847,442	696,403	122,506	1,666,351

Source: Statistics Canada: 1981 Census of Population

ban centers with less than 10,000 population. The heaviest concentration of population is along the curved path from Saint John and Fredericton through Moncton to Halifax.

The spatial and economic structure of the Region has significant implications for its transportation system. The basic geography requires surface connections by marine ferry. Smaller centers of population separated by relatively long distances result in lower passenger-load factors and less frequent ser-

vice by all passenger modes. Relatively low income means lower demand for passenger travel. A modest manufacturing sector translates into relatively less high-value freight, with less opportunity for back-haul movement. This, in turn, leads to a narrower base of traffic from which to recover fixed costs, and makes freight transportation more expensive than in other areas. In general, good transportation service has been costly and difficult to provide in the Maritimes.

TABLE 2

MODAL SHARES OF MARITIMES INTERCITY PASSENGER TRIPS 1980

	Air %	Rail %	Bus %	Automobile %
Intra-Regional	.4	1.1	1.8	96.7
Extra-Regional	30.7	6.1	1.3	61.9
TOTAL	4.9	1.7	1.8	91.6

The Maritimes passenger travel market is shared by the air, bus and rail modes of transportation and by the private automobile. The inherent operating flexibility of the private automobile and the fact that a large segment of the Maritimes population has access to it explains why its usage dominates both intra-regional and extra-regional passenger transportation, as shown in Table 2.

As a result of the automobile's growing dominance of both the intra-regional and the extra-regional travel market and the air mode's increasing share of extra-Maritime travel, rail and bus find themselves competing for the rapidly diminishing residual share of the overall travel market. The combined share of these two modes is estimated to have declined from about 8% of the total passenger-kilometers in 1970 to under 4% in 1980.

Historically, the railways played the primary role in extra-Maritime travel. This role has declined progressively over the past 30 years or more and, as a result, rail presently accounts for only 6% of the extra-Maritime market. Similarly, its use for short to medium intra-regional travel has declined to a share of only 1% of total intra-Maritime passenger-trips.

Despite stiff competition from rail on the busier, more lucrative routes, the bus mode attracts the greatest share, among the public modes, of the short to medium-haul intra-regional travel market. Unlike rail, which has a more balanced ridership between intra-regional passenger trips, bus has been virtually excluded from the market for longer-haul extra-regional travel.

The major factors which influence Maritime Provinces shippers' choice of freight mode and which, therefore, bear upon the role each plays are service speed, shipment size, distance/cost relationships, specialized equipment requirements, and commodity types. Marine transportation has always been important for export/import and bulk coastal movements.

Rail has been losing traffic, mostly in manufactured and semi-processed goods, to trucking. The forestry, agriculture and manufacturing sectors, all traditionally heavy users of rail, have dramatically altered their transportation usage in favour of trucking. Largely as a result of this shift, the present regional rail system can probably be characterized as having excess capacity for the traffic volume being handled now and for that projected over the medium-term future. The system has an excessive

branchline network, served by parallel highway systems, which generates a very small proportion of revenue.

However, rail will continue to be a major freight transportation mode in the Region. Its role will increasingly focus on the specialized intra-regional movement of bulk commodities (mainly products of mines), the inter-regional/transborder movement of inbound raw materials and consumables, and the outbound movement of resource and resource-based products. Increasingly, higher value commodities by rail will be moved by intermodal transport (piggyback and containers).

Trucking has established itself as the dominant mode for intra-regional and inter-regional movement of manufactured or semi-processed goods to markets within a range of about 500 miles; and, for selected higher value commodities, the truck is also competitive in the longer-haul markets. The tremendous growth which has occurred here over recent years has been encouraged by trucking subsidies introduced in the late 1960's and by major improvements in the Region's primary highways. The provinces have also moved to implement uniform vehicle weights and sizes throughout the Region in order to facilitate greater operating efficiency.

The role of marine ferry services in the Maritimes is essential to provide links for the surface modes of transportation across bodies of water. Major ferry services connect Prince Edward Island with the mainland, Newfoundland with Cape Breton Island, western Nova Scotia with the State of Maine, and Nova Scotia with New Brunswick across the Bay of Fundy.

A multimodal transportation system is thus in place in the Maritimes, with shifts occurring between and within the modes as technological and economic change occurs. Such a system requires a planning function which can cross jurisdictional boundaries to be effective.

RECENT FEDERAL-PROVINCIAL EXPERIENCE IN JOINT TRANSPORTATION PLANNING

Based on agreement between the federal and Maritimes transport Ministers, a committee of officials examined Maritimes transportation expenditures and made recommendations to the federal and provincial governments in the fall of 1981. These

recommendations were later approved by the four governments concerned and were included in a Memorandum of Understanding (MOU) signed in early 1982. The MOU agreed to a set of short-term program changes and a proposal to develop a transportation system framework through a federal-provincial committee of senior officials and a comprehensive work program of studies.

Achievements of this Joint Planning Process

Key aspects of any planning process are its mandate, linkages to decision-making, definition of output with timing, study organization and resources assigned. In most of these aspects the joint planning process undertaken on Maritimes transportation can be viewed in a positive way.

A Ministerial agreement was signed with media coverage. Thus, the formal public commitment to undertake planning was at the highest level of the governments concerned. Senior officials were designated by Ministers to undertake a joint planning process. Copies of the MOU between governments were widely circulated, indicating that this planning process was highly linked to decision-making. It was begun with the knowledge that a significant resource reallocation decision had been made, based on preliminary analysis and recommendations by a senior officials committee.

The planning process was given a specific direction by the MOU to further recommend reallocation of expenditures and assess the need for additional funding, based on study of a number of specific topics.

The committee of senior officials charged with the work developed a comprehensive work program of studies, agreed to by senior representatives of both the federal and the three provincial governments. The main thrust of the work program was a comprehensive review of freight and passenger services. This was complemented by studies of facilities needs for airports, ports, ferry services, and highways. All of this was designed to lead to proposals for expenditure based on a multimodal system approach.

Undertaken during a time of limited available manpower, the planning process was allocated resources by both levels of government. Each level of government assigned a senior official to co-chair a Maritime Provinces Transportation Planning Committee (MPTPC). Other senior officials became members of the Committee. Funds were allocated for consultants to be engaged where necessary. Staff were requested to prepare reports for the MPTPC.

As shown in the references, a number of studies were agreed on and quickly begun. Many good planning studies were launched and completed expeditiously. Some of these studies, such as the one on bus operations, produced results which were quickly applied by both levels of government.

Problems Experienced in this Joint Planning Process

The planning work was undertaken by various groups, each performing individual studies contributing to a work plan. There was no authority available to require deadlines to be met or methodologies be standardized. Strategic planning has tended to be carried out consultatively with

Transport Canada. Provincial participants are not subject to federal direction. While a great deal of persuasion was used by the study co-ordinator (the author), delays occurred in a number of the individual studies and resulted in time extensions to the overall work program.

While most studies were quickly initiated, agreement could not be reached on those concerning certain sensitive areas. Studies in a few critical areas were either not resolved quickly or to the satisfaction of all parties. Federal studies and papers began to be produced and to become dominant in Committee discussions. The provinces, with fewer resources, responded to and analyzed federal papers rather than participating in joint analyses.

During the planning period the original premise of trade-offs within a funding envelope was overtaken by exogenous injections of federal funds through the Special Recovery Capital Projects Program (SRCPP) for non-transportation purposes. The normal disciplines of budgetary limitations and cost-effectiveness still held. Due to broader concerns at the national level, fiscal austerity was de-emphasized and priority given to investments including ones aimed at improving regional transportation infrastructure and fostering job creation. This led to a reduced emphasis on the final output of joint planning as a basis for decision making.

Administrative constraints included limiting travel funds for meeting between the partners in joint planning. Also, some key decision-makers (the original initiators of the planning process) changed at critical points.

Of note in all of this is the high caliber of professional analysis by all parties, and the consultants engaged by them, on nearly all aspects of Maritimes Transportation.

NEED FOR MULTI-JURISDICTIONAL PLANNING

There is a need for a planning process which crosses jurisdictional boundaries. This applies in the Maritimes, but has more general applicability.

Modal shifts occur as a dynamic transportation system responds to changing social, economic, and technological factors. Federal jurisdiction focuses on inter-provincial transportation, yet not exclusively, e.g., the air mode. In some areas federal authority is delegated to the provinces, e.g., inter-provincial motor carrier. Provincial jurisdiction focuses on highways and their use, and intra-provincial transportation. Jurisdictional issues cannot be adequately covered in this short paper. However, a responsive transportation system must be assessed comprehensively in terms of all modes, not in a segmented or compartmentalized way. Such an approach requires multi-jurisdictional planning.

Major system issues are of a multi-jurisdictional nature. Bus mode deficiencies must be assessed in relation to inter-provincial pooling of services and bus/rail sharing of a small passenger market. Rail passenger services are a small passenger market. Rail passenger services are costly in total terms (with 75% of rail costs subsidized by government) yet services, in some cases, remain inefficient. The shift of high-

TABLE 3

**TRANSPORT CANADA/CANADIAN TRANSPORT COMMISSION
GROSS EXPENDITURES IN THE MARITIMES
(millions of dollars)**

Year	Freight Subsidies	Rail Pass. Subsidies	Ferry Subsidies	Hwy. Strength.	Other	Mar. Serv. & fac.	Air Serv. & fac.	Total
79/80	44.2	35.5	34.1	26.4	3.1	101.2	51.1	295.6
80/81	45.6	53.8	36.0	12.5	6.4	110.4	58.3	323.0
81/82	59.5	49.4	45.5	7.7	8.1	123.7	65.5	359.5

value rail freight to truck has resulted in a rail branch-line system where 30-40% of rail system workload results in 1% of system revenue. The adequacy and regulation of trucking services are of concern across provincial and national boundaries. Although highway facilities are within provincial jurisdiction, federal highways assistance in the Maritimes goes back more than two decades. All of these, and other issues, will require resolution through a multi-jurisdictional approach to planning in the Maritime provinces.

Table 3 shows 1981/82 gross expenditures of \$359.5 million by Transport Canada and the CTC in the three Maritime Provinces. The expenditures include a great variety of programs (operational, grants and contributions, statutory) in all modes. Other federal departments expended \$58.1 million on transportation programs in the same year. Provincial expenditures on transportation programs were \$447.9 million in 1981/82, almost exclusively on highways and split between capital and O&M.

The amount of annual governmental expenditure is currently almost \$1 billion dollars annually for Maritimes transportation. The total passenger and freight bill for the region would substantially exceed that amount. Analysis and planning assess the potential of reducing the overall transportation bill for the Maritimes while, at the same time, ensuring good transportation service. This will require cost-effectiveness analysis across jurisdictional boundaries followed by joint commitment to necessary change in sensitive programs.

Economic development of this region is important to both the federal and the provincial governments. One of the objectives set jointly by the Maritimes MOU was for more effective achievement of federal and provincial economic development. The new process by which the federal government intends to achieve its regional development aims is through Economic and Regional Development Agreements negotiated with each of its provincial counterparts. These overall joint federal-provincial agreements would lay out the broad parameters with which development initiatives could be structured. More specific federal-provincial sub-agreements (including transportation ones) would implement particular strategies, many of which cross jurisdictional boundaries.

SUGGESTED GUIDELINES FOR A JOINT PLANNING PROCESS

The key question now becomes how best to build a strong joint planning process. This has general applicability in multi-jurisdictional planning.

A desirable starting point is a common factors approach, rather than one that focuses on issues, questions, positions or differences. Do the parties have a common set of stated objectives and principles? What data sets can be agreed upon as error free and objectively collected and analyzed? What recent studies have been completed and are generally agreed to be correct interpretations of particular issues? Such a common factors approach focuses on the process in a positive, constructive way and leads to a baseline definition which can serve as an initial presentation to decision makers.

Parties in joint planning processes should then be willing, early in the planning process, to indulge in some purely think-tank sessions on issues. This could be done through outside speakers, consultants, academics, working papers by either party, etc. The purpose is to allow free discussion of complex and thorny issues with a view to understanding them, without requiring commitments. The latter part of this exercise involves the definition of issues to be resolved. An issue can be either an objective not met, (a structural issue) or a shorter term one that is symptomatic of the former.

Discussion of issues should result in options for their resolution. This would initially involve many options, then a gradual focusing on which ones are feasible, their costs, etc. At some point criteria will have to be set, options screened against them to determine some ranking, and costing undertaken. Hard-line positioning should be avoided at this stage.

There is no substitute in all of this for constantly reinforcing the principle that participants are "operating in good faith" by setting ground rules and adhering to them. Government policies may change, counter to the current direction of the planning process. It is important that participants in the process not be caught by surprise without ready answers for their principals. Joint planning becomes one of two things: either gamesmanship where one is constantly trying to outmanoeuvre the other party,

or a co-operative effort to achieve a common set of transportation objectives.

There is a time for negotiating and one for planning. Separation of these functions is necessary for effective joint planning to occur. If the whole planning process is viewed as negotiation, not much progress will be made. Negotiation should be undertaken in a post-planning environment, with a clear sense of what each party wants and agreement on the best compromise possible. Negotiation is not planning and vice-versa.

Planning undertaken in back rooms stays in back rooms. The key link is between planning and decision-making and it is frequently not an easy link for the planners to make. In the joint planning process there must be agreement to provide advice to Ministers and senior decision makers at key points and to receive active guidance from them. Individuals or governments may change and with them the top-down direction or response that is needed to guide the planning process. Producing unwanted advice after considerable effort in time-consuming analysis is frustrating to decision makers and *their* planners.

CONCLUSIONS

Multi-jurisdictional planning is desirable to achieve system adequacy, economy, efficiency, and support of regional goals and objectives. However, as is evident from the Maritimes planning experience cited in this paper, multi-jurisdictional planning is a complex and sensitive process.

The need exists to review the process of multi-jurisdictional planning constantly and to identify ways to improve it and resolve its inherent problems. This paper suggests some ways to approach the process: definition of points of agreement, commitment-free think-tank sessions, clear identification of issues and options, and tight communication with decision making while still retaining a planning perspective.

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