PUBLIC POLICY PLANNING
(GENERAL MODEL AND CASE STUDY)

by

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Introduction

This study is a direct continuation of a previous work which introduced a social situation-study model. That model described a method for making a diagnosis, an analysis and a prognosis of any problem arising in a social system. The particular problem chosen to illustrate the mode was that of the Geostationary Orbit and Electromagnetic Spectrum (GOES).

As that study explained in detail, the essence of the issue is how to guarantee to all countries an equitable access to the GOES resources. That issue was debated in the 1979 World Administrative Radio Conference (WARC) and again in the 1982 Plenipotentiary Conference of the International Telecommunications Union (ITU). As a result, it is scheduled for resolution in a special WARC to be held in 1985 and 1988.

In order to prepare for the forthcoming Conference, all the concerned governments are now studying the situation and preparing their position. The Canadian government is deeply engaged in this process, not only to determine its own policy but to influence that of others.

It is this policy-planning process which the present study will try to formalize. By this we mean to make explicit and systematic the procedures by which rational decisions may be taken by public institutions. To do so, we shall construct a model outlining the various phases and factors to be taken into consideration by a government which wishes to improve its policy-making capacity.

The proposed model incorporates an algorythm which follows a series of steps grouped around a three-phase process. Each of these phases shows how to determine the desirability, possibility and feasibility of any policy under consideration. The diagram in the next page

summarizes this algorythm in a few lines. The rest of this paper is a methodical explanation of the diagram.

The three chapters of the paper correspond to the three phases of the model, each of which contains three steps of its own. In every step along the way, we shall try to consider the impact of economic, social and political factors into the policy-making process. On the basis of these criteria, we shall finally choose the optional policy which emerges as a result.

Trying to plan telecommunications policy is a particularly difficult task because of the rapid developments in that field and the fact that "radio waves do not respect international borders". These developments make traditional distinctions both in space and function disappear. Countries can no longer unilaterally decide their policy; neither can they separately decide radio and telephone from other information-communication policies.

This high technology area is where the greatest advances in the twentieth century have occurred. The technical and scientific progress has confused the social and economic systems upon which it broke. As a consequence of this disorientation, political institutions have hardly been able to cope with the multiple shocks they experienced and the heavier demands placed upon them.

Yet, for social change to be carried out in an orderly and beneficial manner, governments must maintain some control on the situations. To do so, they must be able to foresee what is coming up ahead and plan their policies accordingly. If technological developments are to serve society, they must follow social priorities and goals, otherwise, the social system will have to adjust to technical exigencies.

It is for this reason that being able to define social objectives, consider environmental constraints, and estimate available resources is crucial to the political task. Knowing what one wants as well as what one can do is therefore very important in maximizing one's chances of success. The following procedures are designed to help in this objective.

1. Desirability

In principle, the state exists to serve its community. In order to fulfill this raison d'être, political systems define social needs and wants which their governments then try to satisfy by specific policies. The first phase in this process of policy-making is to determine the desires of the people and then correlate them with the values which could answer them.

POLICY - PLANNING ALGORITHM
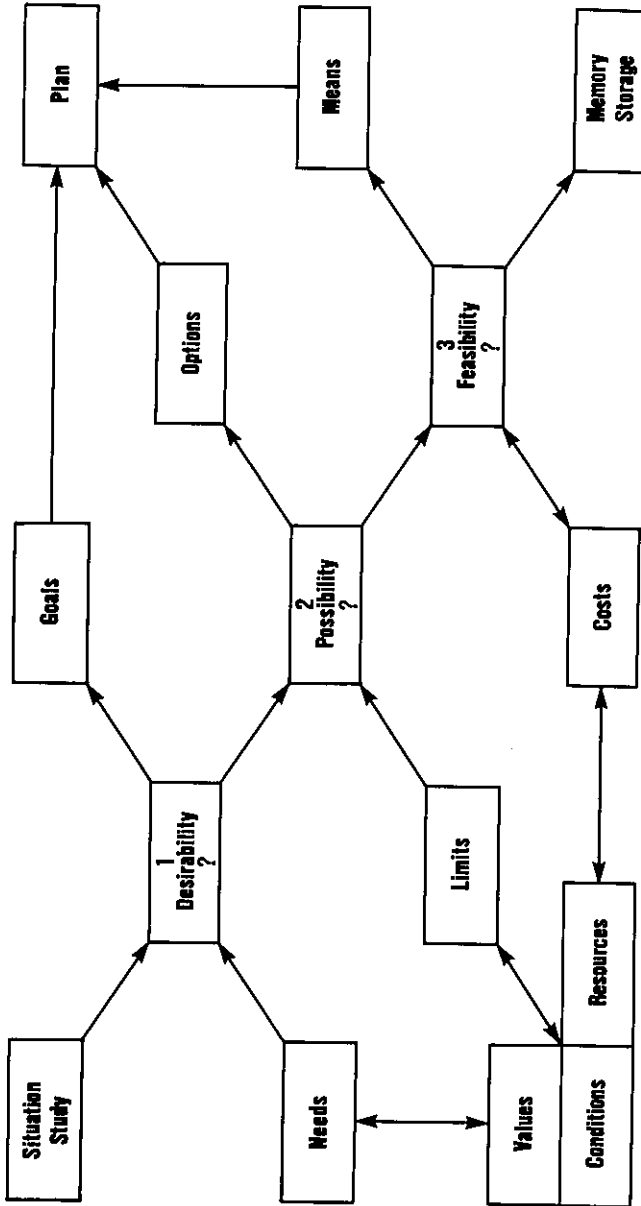
The Canadian Government is engaged in this task of demand identification and goal formulation as part of its public policy planning. A systematic presentation of this process, as the model algorythm illustrates, will take us through the various steps described below.

1.1 *Demand Articulation*

Since the primary activity of a political system is to articulate various public demands, the government's perception and conception of this process is fundamental to policy-making. In Canada, there is a gamut of methods by which different constituencies make known their wishes to the government. These methods range along the following continuum:
— *Formal:* Referenda; Plebiscites; Electoral platforms.
— *Semi-formal:* Royal Commissions; public surveys and consultations.
— *Internal:* Public debates, manifestations, and lobbying activities.

All these political events communicate the mood of public opinion on any particular issue. The choice of method depends on the extent and depth of public feelings on the issue in question. The more esoteric the issue, the more informal the means and restricted the participation for its articulation.

The issue we have chosen to study here falls in this category: i.e. it is highly technical and specialized. Determining what Canadians want in the matter of GOES is neither simple nor easy because of the complexity and specificity of the issue. Most people have no interest or opinion in this question, so its articulation is left to a few groups representing various particular interests and indirectly the public at large.

In general, pressure groups may be classified in three areas:
— *Economic:* Private industry; public corporations, and labor unions.
— *Social:* Public interest groups, cultural and consumer associations.
— *Political:* Provincial governments, regional constituencies and parties.

From these sources come different points of view which are often contradictory. What is to the interest of one group may not necessarily be to the advantage of the others. In the matter of telecommunications, there is a clash of interests and opinions among economic, social and political considerations. The demands of the Communications

industry to protect its vested interests and maximize its profits, are not shared by consumers who want a variety of services at minimum cost, nor by local communities and governments who pressure for regional development.

Since Canada is a widespread, heterogeneous country, it has great communication problems. Its geopolitical, cultural and demographic situation creates special needs which require a lot of effort to fulfill. Therefore, the Canadian position on the GOES issue will be determined by the country's basic service requirements as interpreted and negotiated by the various representative groups involved in the policy-making process.

As a result, the emerging consensus is that Canada's communication needs will increase both quantitively and qualitatively, thus the demand for more and better facilities will become heavier throughout the country. In order to prepare for this anticipated condition, the government must plan a policy which optimizes our use of space and communication resources.

Such planning requires not only a domestic consensus, but an international cooperation. Since the GOES resources are necessarily common to all mankind, our use of them depends to a large extent on the concurrence of others. Thus our national needs and demands must be compared and compromized by those of other nations individually and the international community collectively.

The basis upon which these compromises will be negotiated are the underlying principles of international law and our own national values, these, we shall investigate in the next section.

1.2 General Principles

In order to translate the brute demands of people into socially acceptable desires, there must be a system of normative values upon which these demands are judged. The standard used to assess any particular case has to conform to the legitimate norms of the community at large. In their most basic form, these norms may be considered in three dimensions:

- *Spatial:* Level of geographical extent (national, regional, global).
- *Temporal:* Range of chronological sequence (immediate, medium-term, ultimate).
- *Sectoral:* Scope of functional areas (economic, social, political).

In other words, one must determine what is the national interest and how it relates to regional and global interests; what is advantageous

for the present time and then for the long-run; as well as what are
the particular economic, social and political values to be sought after.

   The Canadian interpretation of the national interest is to safeguard
its sovereignty within the international system. This means that we
try to promote our particular interests in conformity with the com-
mon good of all mankind. To do so, we respect international law and
maintain peaceful and amicable relations with all states.

   Similarly, it means that the long-range interests of the community
should not be sacrificed for immediate advantages; nor should short
sighted policies aimed at temporary solutions dominate our concerns.

   Finally, we have to be conscious of the values which underlie our
actions in the three important areas:
   — *Economic:* Stability and growth; development and
      conservation.
   — *Social:* Quality of life, culture and education.
   — *Political:* Law and justice; security and unity.
These principles are embodied in the Canadian Constitution and Bill
of Human Rights, thus forming the fundamental values of our com-
munity. Their broadness, of course, makes them almost universal
desiderata and are thus commonly shared by all great civilizations.

   Because of their generality, however, they must be specified to
apply to particular places, times and cases. In the case of communica-
tions, the contemporary Canadian society has interpreted these prin-
ciples to mean that our national telecommunications policy should pro-
mote the economic, social and political welfare of the people. In other
words, communications is not only a means of serving the actual needs
of the country, but should contribute to economic development, social
justice and nation building.

   On the basis of this interpretation, the Canadian government tries
to find the appropriate means to attain these ends. This search deter-
mines the policy objectives which we shall consider next.

1.3 Policy Objectives

   Following from the above principles and coupled with the demands
of various constituencies, the Government of Canada defines the goals
of its communications policy. The framework legislation for such policy
in the last fifteen years has been the Broadcasting Act of 1968. The
Act calls for effective ownership and control of telecommunications
by Canadians so as to safeguard and enrich the social, economic and
political structure of the country.

In order to attain these goals, communication policy must envisage the following objectives in the three areas:
- *Economic:* Efficient production; profitable investment; high employment.
- *Social:* Effective service; bilingual and multicultural programming.
- *Political:* Public regulation; regional balance; national identity.

In a sense, communications have become in the Twentieth Century what transportation used to be in the Nineteenth regarding the Canadian Confederation. Since the main function of communication is to make contact between people by exchanging information among them, it can serve as a political as well as a socio-economic tool.

All these objectives, however, are not always complimentary. Very often, one has to be compromized to allow for another, depending on the priorities of the government at any time. Economic efficiency, for example, could give place to public service, and bilingualism might be sacrificed to provincial demands. Optimizing the balance among these different objectives, so as to maintain a national consensus, is the mark of a successful federal policy.

In the same way, the government must balance the immediate needs for communication with the long-term development of telecommunications technology. Proper policy planning should provide for current and future demands. In this case, the expansion of communication facilities and their qualitative upgrading has to remain the central plan of the government. For that reason, present decisions must be flexible enough not to tie our hands in the future, but at the same time should be sufficiently far sighted to anticipate forthcoming eventualities.

The national objectives to establish, maintain and develop public telecommunications in Canada, have to be coordinated with the international objectives of global and regional cooperation to attain similar objectives of other nations. World interdependence necessitates such cooperation, especially in the field of telecommunications where chaotic situations can result without it.

In this matter, one of the main procedural objectives of the Canadian government is to facilitate international consensus-building and contribute to collective decision-making in the various arenas of world affairs, such as the ITU. By looking for creative compromises among conflicting national interests, Canada can play an important diplomatic role in the international legislative process.

More specifically, in the case of GOES, Canada can hardly imple-

ment its national objectives without international cooperation. For that reason, before we finalize our own policy, we must consider the external environment which prevents both constraints and opportunities for action.

2. Possibility

Having considered the question of policy desirability, we now move on to that of possibility. As was indicated the desirability of a policy depends primarily on the demands of the political system as they are articulated by its government. As a result, a desirable policy reflects some ideal situation which a state wishes to bring about in the foreseeable future.

Ideals, however, have to be confronted with realities and tempered accordingly. By "realities" we mean the systemic or environmental constraints which limit our freedom of action and often confound our desires. For this reason, ideals must be measured against realities to determine their feasibility.

Before that is done, we must present those aspects of reality most significant to our case study. The aspects which concern us most may be divided into the immediate international system constraints and the ultimate national environmental necessities. On the basis of these two considerations, we shall be able to outline the policy options open to us at this time.

2.1 *The International System*

Canada, like every other state, is a member of the International system, therefore can hardly take unilateral decisions in matters affecting other states. Canadian policy is thus circumscribed by the needs and wants of other governments abroad.

The most important government to whose wishes Canada must pay particular attention is the United States. In the GOES issue, the USA has taken a clear stand for the status quo with minimal changes. The USA feels that the present operational procedures for allocating the GOES resources are adequate and should not be tampered with to any great extent.

The superpower status of USA makes this conservative position weigh heavily in the decision-making process of the international system, as well as on the national decision-making process of Canada. Because of their geopolitical and socio-economic proximity, the two North American countries share many common interests, some of

which are in space telecommunicating. Both have no choice but to cooperate in this field; although such cooperation is marked by U.S. predominance. As the Junior partner, Canada cannot stray too far away from the powerful influences that bind it to the USA.

The most important margin of manoeuvres that Canada has stems from the international counterweights operating on the USA. These counterweights originate in the two structural and cross-cutting dichotomies which divide the world into opposing camps: i.e. the East-West and North-South. The former operates around security and ideological issues, therefore is not so relevant in telecommunications. As a matter of fact, both USA and USSR are more often than not on the same ride in ITU debates.

The confrontation which is much more significant here cuts along the North-South gap. Unlike the satisfied superpowers, the nations of the Third World demand radical changes in the status quo. These demands, which have been labeled the New International Communications Order require that ITU plan a more "equitable distribution" of the GOES resources by guarantying "equal access" for all countries to space facilities.

One way such guarantees can be given is by an a priori plan which allocates to every state a part of GOES, regardless of its present need of it. This could mean that countries which use more than their share of GOES will have to compensate those who do not use enough. Since two of the most notorious overusers are the North Americans, they will have to pay much more for their telecommunications.

In this situation, Canada is caught between the ties to its continental neighbour and the propensity for an independant foreign policy. In order to maintain its national identity and political integrity, Canada must keep the USA at a distance by helping counterweighing forces maintain some balance of power in the world. Thus a balancing act policy between North and South would seem to optimize Canadian interests in the long run.

2.2 Technological Environment

The political controversy outlined in the previous section is carried out within the framework of contemporary technological capabilities. It assumes that it is technically possible to accommodate all nations by the existing GOES resources. This assumption may be correct for the time being, but the question is for how long?

The GOES issue is basically a near future problem which the international system is trying to solve in the present. As a result of tech-

nological forecasts, it is predicted that the GOES resources will be exhausted in the next few years, at which time late-comers will be left out in the cold, so to speak. Since the late-comers are the LDC's, it is they who demand a share of the present resources before there is nothing left for them.

Although there are absolute limits to all resources dictated by natural laws, the access to these resources at any particular time depends on the available technology. Thus the limits to GOES for practical purposes are technological rather than natural. All one can say is that at the current technological level, the limits to the GOES resources will soon be reached.

If there were no further technological developments, the problem of equitable distribution of presently available resources would be relatively clear and simple. But with rapidly advancing technology, the access to and availability of GOES keeps expanding so that more and more requirements can be accommodated. The question then becomes: will technological advances keep pace with socio-political demands?

The argument of the MDC's is that any a priori distribution plan at this time will freeze technology at its present level because it will take away incentives for further development. This argument, however, is one-sided, since such plan may as well spur technology to keep up with the increasing needs for communications wherever they originate.

As long as demand exceeds supply, technology will try to bridge the gap, after which economic considerations will determine the level of exploitation. It is well known that communications technology is the fastest growth industry in the global economy, so much so that it is seen as the engine of recovery out of the world recession.

If that is so, the question is how will the accrued benefits of this recovery be shared among all the people of the world. It is this question which ultimately boils down the present debate in the various United Nations institutions. Can the fruits of technological developments in space, as in other areas, be more equitably distributed in the future than in the past?

As it stands now, access to space resources depends on high technological capability, which only a few countries possess. The rest, even if they have the legal right, do not have the economic wherewithal to exercise their rights. Therefore, for practical purposes, they might as well not have any rights.

For rights to mean anything in practice, they must be accompanied by economic and technological potential to allow for their implementation. It is such potential which the Third World countries demand

of the First and Second Worlds. This demand involves the transfer of space technology through technical assistance from the North to the South, something which brings us back to the heart of the political balance of power conflict in the contemporary world.

As a middle power, Canada's position in this conflict is ambivalent. Although technologically advanced in some areas, Canada is an underdeveloped country in many other ways, thus having a fort in both camps. This contradictory condition presents a lot of problems but also some opportunities which we can try to exploit by proper handling.

2.3 *Policy Options*

On the basis of the preceeding analysis of the international system and the technological environment, we can now draw some policy conclusions. Since national policy is the formal intention of a government to act in a certain way, the correct estimate of what is desirable and possible is a prerequisite. What we have done so far is to set these two conditions upon which we will build our policy options.

From what has been said, it would seem that the available options may be ranged along a continuum between two opposite position poles. On the one end, there is the ideal "free market" situation in which the utilization of GOES is done on an ad hoc basis. In this case, each nation appropriates whatever resources it is capable of exploiting economically with no regard for anybody else.

This first-come, first-served scenario was approached by the initial conditions prevailing in GOES, but as the demand caught up with the supply, some modification of this "law of the Jungle" had to come about. The status quo situation represents such modification of the "free for all" model. As things stand now, there is registration of frequencies and positions in GOES on a priority basis; so that possession is still nine-tenths of the law.

As it happens, the space powers and their client states have gotten the choice spots in GOES, thus leaving very little for the overruling majority of states who cannot yet make use of these resources. Their demands for a "new deal" are therefore getting more pressing as the availability of the GOES resources is dwindling fast.

In order to avert the looming crisis, many proposals have been put forth, all the way from making few cosmetic changes in the status quo to affecting radical reconstruction of the whole system. Between these minimalist and maximalist approaches, there are of course a variety of intermediate positions, among which may lie the Canadian one.

Closest to the minimalist position are several piecemeal proposals which try to improve the present situation by patching up its cracks a posteriori. These include greater international cooperation and coordination in GOES assignments unilateral restraint in using resources and regional common ports to be shared by modest users. All such proposals aim at finding a middle solution between the chaotic and monolithic extremes.

In order to avoid the former, many states are willing to go to the latter end and have advanced global plans for GOES assignments. These plans range from medium to long-term detailed distribution of space resources among all states. Such a priori assignments would guarantee equitable if not equal access for every state regardless of its present need or capability.

This wide variety of policy options may be shown as consecutive points along a flexibility-rigidity continuum on a scale from 0 for the most flexible to 10 for the most rigid. The resulting ordinal classification should give us enough consecutive steps of increasing order to contain the various policy positions which may be put forth.

Excluding the two impossible extremes, there are nine realistic options between the status quo (1) and global, long-range planning (9) inclusive. Most probably, however, Options 1 and 9 should also be excluded, since most governments are prepared to support something in between. This reduces the range of probability from a modified status quo (2) to a flexi-planned international policy (8). It is within this restricted realm that Canadian and most other countries' options must lie.

The famous five options presented in ITU as the basis of negotiations fall within this range as well; so Canada would have to choose its position therein. These options, of course, are neither exhaustive nor exclusive, thus they could be combined in some way to produce a new one. With a bit of technical studies and diplomacy, Canada could develop a regulatory regime that will strike a consensus and therefore break the present deadlock.

3. Feasibility

In this last chapter of the present study, we shall take the last step of the policy-planning process. This phase concerns the "feasibility" of a proposed course of action, that is to say the likelyhood of its implementation. The feasibility phase is a logical sequent of the two previous ones. After determining the desirability and possibility of a policy proposal, we are now ready to consider its feasibility.

In order to do that, first we shall have to estimate the costs associated with any particular proposal, so as to decide if we can afford it. This, however, will require that we take an inventory of the resources available for the job. On the basis of these calculations, we should be able to devise the most feasible means of attaining our goals. Although in this short article we cannot go into the details of these calculations, the following examples taken from our case study will illustrate the three steps of this phase.

3.1 *Cost Assessment*

Determining the cost implications of a policy is a difficult business. The primary difficulty lies in the different kinds of costs involved in any course of action. Following our model, we can mention three important areas:

- *Economic:* Financial or material losses; high prices and low efficiency.
- *Political:* Popularity or influence losses; decrease of power.
- *Social:* Quality of life losses; lowering of social justice.

Of course, in addition to these functional costs there are other kinds associated with time, such as long-term and opportunity costs, as well as space, such as territorial losses or foreign interference.

In each of these areas, the assessor will next have to devise a standard of measurement by which costs can be calculated. Generally, monetary price may be used as a standard, therefore cost estimates or budgeting is made on that basis. Money, however, are best in representing economic costs and can only be indirectly used to measure prices in the other areas. In these cases quantitative indicators could best be used along with qualitative evaluations.

Trying to apply these general principles to the specific policy options we outlined in the previous chapter will require an in depth study of its own. The only thing we can present here is a summary assessment to illustrate what we have been talking about with the GOES case study.

At first sight, it seems that the most economic solutions lie towards the status quo end of the policy range. That is to say the least immediate cost is to be found with the minimalist position which maximizes direct economic benefits.

According to the market principle, the most efficient way to allocate scarce resources is to auction them off to the highest bidder. If such auction were held by ITU, the present distribution of GOES

would prevail, but the proceeds could go to promote international development and for technology transfers to the Third World.

This solution would increase the costs to the users, but it would also buy them political dividends by increasing their popularity with the majority of the world. As is well known, political solutions tend to have some economic cost. This cost, however, is in the short-run and can be recuperated in the long-run by the good will it generates.

On the other end, more social solutions, like global planning, are politically radical because they threaten vested interests too much. As long as the USA does not accept it, such planning will not be feasible. Even though its social benefit may be highest, its economic cost would be prohibitive for the time being.

In this situation, the best thing for Canada would be to find a political solution to the GOES issue. This solution lies between the extremes of economic efficiency on the one end and social justice on the other. Most likely, a negotiated regulatory regime which applies a flexible coordinated procedure would satisfy all sides and thus optimize the overall cost-benefit calculation. Canada's reputation as a broker of political compromises would put us in a good position to attempt such consensual solution.

3.2 *National Resources*

In order to decide whether a particular cost is affordable, one must know his resources. It is the effective resources which we can bring to bear in implementing a policy that determine if the costs associated with it are within our means. Only then can we say that a policy is feasible.

Like costs, resources are of different kinds, all the way from raw materials to sophisticated ideas. National resources, thus, include both natural and artificial capabilities which make a course of action possible. In keeping with our model, we can classify resources in three groups:

    — *Economic:* Industrial capacity and material wealth.
    — *Social:* Scientific knowledge and technological skill.
    — *Political:* Diplomatic acumen and high credibility.

These concepts, of course, are much more complex than our definitions imply. But we have chosen these particular aspects because they are most relevant to our case study.

Thus, considering what national resources Canada has to carry out its policies, we can enumerate several characteristics which make for sufficient capability. In general, Canada is considered as a middle

power. This refers primarily to our economic performance based on GNP which is the tenth largest in the world. Together with our relatively low population, this makes Canada one of the wealthiest countries on earth.

Canada can use its economic power to promote its policies in GOES, as in other areas. Indirect strings attached to our foreign aid, for example, increase Canadian influence abroad, especially among the recipients. Quid pro quos in international affairs is a normal practice of exchanging favours between countries of complementary interests.

Closely related to the economic potential is the broader social prestige which Canada enjoys in world affairs. This prestige grows out of our high scientific and technological level, especially in telecommunications. Canadian skills in certain fields place us in a good bargaining position vis-à-vis many countries. This advantage can be put to use in GOES negotiations.

Technology transfer, for example, could be exchanged for additional GOES resources. Canada's high technology sector could be used by the government to great advantage in its negotiations in ITU. As the world's largest per capita user of space communications, Canada is both an important consumer and producer of GOES resources; therefore its influence in this area is relatively heavy.

Based on this socio-economic position, Canada's political influence is even greater. Since "knowledge is power", Canadian know-how can easily be translated into influence. As Canada is becoming an Information Society, its power base is shifting from raw materials to human services. Our information-communication resources will therefore be replacing matter-energy ones as the foundation of Canada's image in the international community.

Already, the reputation of Canadian diplomacy is quite high. Our delegations to international conferences, like WARC, are known to be well-briefed and knowledgeable in their areas. As such they often contribute their expertise to other delegations and serve as advisers to Third World countries. Moreover, as member of long standing in the Administrative Councils of ITU and other INGO's, Canada is one of the most active and best-informed governments in everything that is going on in the world's decision-making bodies.

For all these reasons, Canadian proposals and recommendations receive a favorable hearing in international organizations, especially in those concerned with communications, like ITU. Thus, if Canada's preparation for the next WARC go well, we should be in good position to have many of our views supported by other countries and eventually adopted by the Conference.

3.3 *Strategic Program*

For Canada's preparations to succeed, a lot of time and effort will have to go into the policy-planning process. The model we have outlined so far has given the critical elements of this process which we are about ready to culminate by selecting a certain priority of policy options.

Before we do that, let us reiterate the formal procedures of strategic programming which are more or less followed in most advanced countries including Canada. We can best explain these procedures by using the space-time parameters introduced previously.

First, as to space, policies are prepared at various geopolitical levels. Of these three are most significant:

  — *Intranational:* Internal-domestic; functional-regional; provincial.
  — *National:* Federal-central; inter-departmental; state.
  — *International:* External-foreign; continental-bloc; global.

That is to say, nation-states, like Canada, arrive at their policies by a complex process of vertical and horizontal interactions. When an important policy is to be planned, a series of consultations and negotiations take place within and outside the country, between the public and private sectors, as well as among the various governmental agencies included.

Apart from the authoritative decision-makers in the Cabinet and Parliament, the actors in the policy-planning process include business executives, union representatives, public interest lobbyists, technical experts, civil servants, provincial governments, professional consultants, diplomats and negotiators. The kind of policy produced after all these people had a go at it is often the lowest common denominator which could be possibly obtained by consensus.

Moreover, all these interactions up and down, back and forth, take an inordinate amount of time. For our purposes, this time may be divided into three periods:

  — *Initial:* Preparations; Presentations; Confrontations (First Cycle).
  — *Intermediate:* Consultations; Negotiations; Accommodations (Second Cycle).
  — *Final:* Consensus-building; decision-making; Conferencing (Third Cycle).

Adapting these periods to the GOES case study, we would span the three years between the 1982 Plenipotentiary and the 1985 WARC. Although the origins of the present issue go back to the 1979 WARC,

Canadian policy planning did not really get under way until 1983. This year, therefore can be considered as the first cycle of preparations.

The Canadian Interdepartmental Committee (CIC) started meeting on this subject and calls for policy proposals went out to the industry and the public at large. 1984 will witness the second cycle when all these inputs will be analysed, consultations with foreign countries will be carried out, and the process of accommodation among the various interests will reach its peak. Finally, the third cycle in 1985 will center in the Conference negotiation and consensus-building. If that succeeds, the outcome of the Conference will then come back to each government for implementation.

This process could be illustrated by a two-dimensional graph, showing space in the vertical and time in the horizontal axis. Given these parameters, the strategic program will appear as a sinosoidal curve, fluctuating between the three geopolitical levels in annual cycles through the entire three-year period.
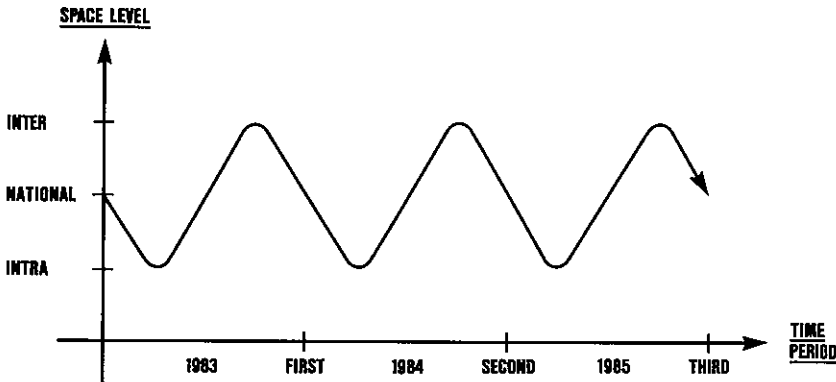
As this qualitative graph shows the policy planning activities follow a dialectic pattern between the domestic, federal and foreign levels, repeating itself periodically until the 1985 Conference. Beyond that, the 1985-8 period will be used for cooling off a bit, during which

time new ideas could be developed, planning methods elaborated and various positions tested. Ultimately, if all goes well, the 1988 session will make the final decisions.

Conclusion

Now that we have explained each step of the policy-planning model, it remains to draw all the loose ends together in the form of a conclusion. Although this short article was not intended to apply the model in depth, we did illustrate it with the GOES case study. Of course, a full and proper application would require much more time and effort than we could give to this study.

POLICY OPTIONS
SELECTION CRITERIA MATRIX

Factors / Phases	Economic	Political	Social	Average
Desirability	1	4	9	5
Possibility	2	3	8	5
Feasibility	3	5	7	5
Overall	2	4	8	5

Market ⊢——⊥——⊥——⊥——⊥——⊥——⊥——⊥——⊣ Planned
            0   1   2   3   4   5   6   7   8   9

Nevertheless, we shall conclude by selecting some of the policy options open to Canada. The selection will be made on a priority ranking along the scale given in chapter 2.3. Along with the conclusions of that chapter, we shall also use those of chapters 1.3 and 3.3. As can be seen by the algorythm in the introduction, these three chapters conclude the three phases of the model.

The three separate conclusions of each phase made possible the selection of options on the basis of functional criteria: economic; political; social. Utilizing these criteria at each of the three phases, we can select the most desirable, possible and feasible policy options. The table in the previous page shows the construction of this three-by-three decision matrix.

As shown, the rows represent the phases of the model, while the columns represent the criteria of decision-making. At the end of each row and column, we have calculated the average value for every item. The number in each box corresponds to the policy option chosen according to the horizontal and vertical criteria given in the model. Of course, since our study here has only been rudimentary, the choices could only be approximate and subjective. They are thus only presented to exemplify the process and not as the definitive priorities.

With this caveat in mind, we have chosen the extremes as ideals for each of the pure economic and social criterion, while the golden mean serves for the political. The range of possibility, however, excludes the extremes of desirability and extends from modified status quo (2) to less than global long-range planning (8), with the political mean lying closer to the social than the economic solutions. Finally, the most feasible course of action for Canada would be even more restricted, ranging between some form of medium-range regional (3) and flexible global (7) plan. Naturally, the optimal political position lies somewhere in the middle (5). The averages confirm these compromizes.

Without belabouring the obvious, the model fixes the limits of policy choice for a government, like the Canadian, which has to operate within a plethora of constraints. Taking into account not only what one's own public opinion demands, but what other countries want and what one's capabilities will allow, makes for complex equations, difficult to calculate.

Our general conclusion that Canadian efforts should work towards flexible planning seems to be the optimal one, all things considered. Such flexibility is necessary to respond to changing needs and technological advances, thus accommodating unforeseen developments. Trying to keep one's options open, is good advice as long as it is not overdone. Therefore, we have to accept some global planning not only

because it is desirable in itself, but because it is demanded by the majority of mankind.

What we are proposing for a Canadian position spreads the risks inherent with both extremes, and increases the probability of a consensual resolution to the present confrontation between North and South. This test shows that the model comes sufficiently close to reality to merit further study. Given more resources, the model could be better calibrated and the issue in question studied in greater detail.

PLANIFICATION DES POLITIQUES PUBLIQUES

La présente étude fait suite à une analyse déjà publiée dans le volume VIII des Annales; elle examine une méthode permettant de diagnostiquer, d'analyser et d'anticiper les questions d'intérêt public comme, par exemple, celle de l'orbite géostationnaire. En partant de cette base, on y décrit le processus d'élaboration des politiques qui entraîne des procédures automatiques de prises de décisions rationnelles par les institutions publiques. Le modèle étudié ici suit une algorythmie en trois étapes, établissant la nécessité, la faisabilité et la rentabilité des politiques proposées. Encore une fois, il s'applique ici à la question de l'orbite géostationnaire et propose quelques suggestions pour résoudre ce problème.