

THE UNIVERSITY OF MANITOBA

A NEW MODEL FOR AIRPORT PLANNING

by

LAWRENCE E. BORTOLUZZI

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF CITY PLANNING

DEPARTMENT OF CITY PLANNING

WINNIPEG, MANITOBA

February, 1978



A NEW MODEL FOR AIRPORT PLANNING

BY

LAWRENCE E. BORTOLUZZI

A dissertation submitted to the Faculty of Graduate Studies of  
the University of Manitoba in partial fulfillment of the requirements  
of the degree of

MASTER OF CITY PLANNING

© 1978

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this dissertation, to the NATIONAL LIBRARY OF CANADA to microfilm this dissertation and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this dissertation.

The author reserves other publication rights, and neither the dissertation nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

## DEDICATION

This thesis is dedicated to my loving wife, Deborah-Lynn, whose dedication to my purpose has been the source of my strength; a quality surpassed only by the love she continues to bestow.

Much of what I have accomplished is to a large extent due to the encouragement provided by my parents, Norma and Edward. This thesis is, in part, the more tangible fruits of their labour. Their constant love and encouragement has been, and continues to be, a source of inspiration.

To my brothers Brian, Gordon and William and my sister Katheryn, who cheerfully offered limitless assistance in many ways, I wish to express my gratitude.

Words seem so inadequate to express my appreciation to my Aunt, Mrs. J. Beilman, who performed admirably the horrendous job of typing this manuscript (and many term papers) in addition to her regular job.

## Chapter I                      NEED FOR A MODEL

1.	Introduction	1
1.2	The Problem	2
1.3	Methodology	2
1.4	Literature	3
1.5	Hypothesis	5
1.6	Organization of the Thesis	6

## Chapter II              THE WINNIPEG AREA AIRPORTS SYSTEM STUDY

2.1	Introduction	9
2.1.1	Nature of the Problem	9
2.1.2	Administrative Responsibility	10
2.1.3	Decision to Plan	11
2.1.4	Description of Study Area	12
2.1.5	Discussion	12
2.2	The W.A.A.S.S. Methodology	13
2.2.1	Study Team	14
2.2.2	Role of Consultants	15
2.2.3	Method of Study	15
2.2.4	The Public Participation Program of the W.A.A.S.S.	17
2.2.5	Data Base Studies	17
2.3	The W.A.A.S.S. Model	22
2.3.1	Development of Interpretative Model	22
2.3.2	Workings of the Model	23
2.3.3	Model Components	25
2.4	Summary and Conclusions	36

## Chapter III              NORMATIVE RATIONALISTIC MODEL

3.1	Introduction	39
3.2	Normative Model Developed by Sarly	40
3.2.1	R. Sarly's Generalized Model	42
3.2.2	R. Sarly's Descriptive Model of the Planning Process	43
3.2.3	Discussion of Model	46
3.2.3.1	Application	46
3.2.3.2	Restrictions	47

. . . . .

3.3	Critique of Sarly's Model	48
3.3.1	General Shortcomings	48
3.3.2	Linear Nature of Sarly Model	49
3.3.3	Alienation of Evaluation Processes	49
3.3.4	Consequences of Shortcomings	51
3.4	Comparison of W.A.A.S.S. and Sarly Models	55
3.4.1	Why the Comparison	55
3.4.2	Discussion of W.A.A.S.S. Model	55
3.5	Summary and Conclusions	57

## Chapter IV                      APPROACHES TO DECISION MAKING

4.1	Introduction	61
4.2	The Approaches To Decision Making	62
4.2.1	The Rationalistic Approach	62
4.2.2	Disjointed Incrementalist Approach	63
4.2.3	Mixed Scanning	68
4.2.4	The General Learning Approach	68
4.3	General Learning Model Critique	69
4.4	Summary and Conclusion	72

## Chapter V                      NEW MODEL PROPOSAL

5.1	Introduction	76
5.2	Rationale of the Proposed Model	77
5.3	The Concept of the Proposed Model	79
5.4	The Collateral Airport Model	80
5.4.1	The Political/Administrative Sphere of Influence	80
5.4.1.1	The Central Regional Authority	81
5.4.1.2	The City Government	82
5.4.1.3	Public	85
5.4.2	The Technical Sphere of Influence	87
5.4.3	The Social/Academic Sphere	89
5.4.3.1	The Social Animator/Planner	89
5.4.3.2	Resource Centre	90
5.4.3.3	Airport Planning Consultative Committee	91
5.5	Summary and Conclusion	93

Chapter VI	NEW DIRECTIONS FOR W.A.A.S.S.	
6.1	Introduction	95
6.2	Application of the New Model To the W.A.A.S.S.	96
6.2.1	Strategy	96
6.2.2	Study Design and Research Methods	96
6.2.3	Decision Making	98
6.2.4	Co-operation and Co-ordination	101
6.2.5	Information Sharing	106
6.2.6	Social Animator/Planner	108
6.2.7	Cost Saving	111
6.2.8	Depth of Commitment to Citizen Collaboration	111
6.2.9	Plan Evaluation	113
6.2.10	Public Involvement	115
6.3	Summary and Conclusions	121
Chapter VII	DISCUSSION & CONCLUSIONS	127

## Figures, Maps, Tables

ILLUSTRATIONS	PAGE	FIGURE	MAP	TABLE
W.A.A.S.S. Reporting Relations	10	1		
Map of Major Airports	12		1	
Airport Study Area	14		2	
W.A.A.S.S. Study Design	17	2		
W.A.A.S.S. Study Design	17	3		
W.A.A.S.S. Study Design (detail)	17	4		
Airport Planning Consultative Committee	18	5		
W.A.A.S.S. Decision Making Model	24	6		
Sarly's Normative Model	42			1
Sarly's Descriptive Model	43			2
Sarly's Descriptive Model (linear)	45	7		
Sarly's Planning Process	48	8		
Model of Decision Making	48	9		
Models of the Planning Process	56			3
Characteristics of the Four Approaches to Decision Making	72			4
Concept of Proposed Model	78	10		
Collateral Airport Planning Model	79	11		
Sub-Model Feedback	84	12		

*CHAPTER I*

*NEED FOR A MODEL*

NEED FOR A MODELIntroduction

This study examines airport planning in practice, compares practice with decision-making theory in literature and explores new approaches to airport planning.

Airport planning practices will be identified as belonging to a classification of decision-making models known as rationalistic models. Conceptualization of the planning approach used in a recent project by the Ministry of Transport allowed the author the opportunity to portray through a case study a model of governmental decision-making.

The development of a model is an important aspect of any planning process. A model provides theoretical assertions about the environment which can be tested through the practical application of the model in a 'real-life' situation. The success of 'working' relationships in real-life application provides concrete evidence of the ways in which model components affect the environ. The model is successful in reducing the apparent complexity of the observed world to coherent and rigorous language where various relationships are interpreted.

Paul Davidoff is an author who advocates bringing the planner into the political process. Davidoff argues that planning is not the simple, technical process, so often adhered to in the approaches sanctioned by large government organizations. The simple approach to decision-making which advocates cost/benefit analysis does not reveal ultimate truth; it merely builds on hidden values. He flatly suggests the place for planning as being in the mainstream of contemporary social change, moving on toward social justice. It is the author's intent, with this subject in mind, to present a model which will accommodate a productive place in planning dynamics.

A model, it was presupposed, would be of greater benefit and flexibility if it dealt with a subject which was a common interest to all three levels of government. All levels of government have expressed a desire to initiate programs which examine innovative new ideas regarding transportation. Although the model presented does not offer new solutions pertaining to accessibility congestion, or energy shortages, it is conceived of as the tool by which governments could achieve future intentions in areas of major significance such as transportation.

### The Problem

Airport planning in Canada has been fraught with problems and controversy. The planning of an international airport is a major area of involvement for government, yet little is known about how government goes about making major decisions.

The nature of past conflicts in airport planning is best cited from the example of Toronto's experience in locating a second airport. Although fifty-nine sites were selected by the Ministry of Transport as potential for airport development, the final selection was an area called Pickering, which was not one of the original fifty-nine. The Pickering site was not selected originally because it failed three of the four original selection criteria: physiography, airspace interference with other airports, and noise constraints presented by urban growth.

Although there were references to some eighty-eight reports, studies or statements, in the end the studies had little to do with the selection of the Pickering site-----still undeveloped and perhaps never to be developed.

Vancouver's airport planning has been almost as chaotic. After many studies, uncertainty remains as to whether to expand the existing facility. Airport planning for Montreal was not without embarrassing events with Miribel, in the end, being selected on political grounds.

It appears that the evaluation function and the decision-making function in the planning process are working in isolation from each other.

### Methodology

The thesis methodology consists of four steps:

- a) use of the concept of model to define the existing planning approach, an idealized normative rationalistic model, and a proposed alternative
- b) comparison of the existing model and normative rationalistic model
- c) criticism of the normative rationalistic model
- d) new directions and a new model through integration of a), b) and c) above.

Each of these four steps can be elaborated as follows:

Models are a tool used by planners in their quest to improve opportunities for human activities and development. The use of the concept of model to define the existing planning approach, an idealized normative rationalistic model, and a proposed model can best be understood by describing the anticipated accomplishments of using a model. Models are developed to help investigators understand some of the basic principles of a systems operation. Models are the representation of reality in a simplified form. They are less complicated than reality and, therefore, make it easier to manipulate various components in a productive manner which the research purposes warrant. The representation of reality and, therefore, the act of setting forth a model represents a commitment to some theory.

The essential elements of the WAASS approach will be described and the methodology employed by the airport specialists will be commented upon. The model adhered to by M.O.T. will be interpreted and classified, with reference to planning experience (case study) in Winnipeg.

Robert Sarly, under the direction of Nathaniel Lichfield, reviewed a number of distinct models of the rational planning process. The research was directed primarily towards overcoming the limitations in current practice by better integrating evaluation into the planning process as a whole. To these ends Sarly developed a particular model of the planning process to provide a framework as an aid to understanding and comparing procedures adopted in some real world planning studies. The model was based on a classification of planning activities derived from the literature reviewed, intended to be both rational and comprehensive. It is for this reason the model developed by Sarly is referred to as a Normative Rationalistic Model of the planning process.

A criticism of the Normative Rationalistic model developed by Sarly will allow the author the opportunity to compare and contrast the Sarly model with the WAASS model.

### Literature

The literature on airport planning in Canada is not extensive. It indicates that the state of the art to this point is still rudimentary. Statements made in the study design for the WAASS appear to confirm the

view that there were shortcomings in the M.O.T.'s approach to airport planning. A new approach which was "of a nature and degree which (was) different from established Regional Ministry planning departments"<sup>1</sup> was sought. Areas of airport planning failings which were more conspicuous than others include: environmental impact assessment, sociological implications identification, and public participation. The airport specialists stated openly that "Ministerial guidelines and methodologies are still in the embryonic stage",<sup>2</sup> in areas identified above. This was one of the reasons outside consultant groups were used extensively in the W.A.A.S.S.

One of the continuing problems to be overcome in areas of major decision-making in Canada, such as found in airport planning, is the matter of government's assumptions. The difficulties expressed here were described earlier as the Federal Government's decision to build a second Toronto airport. Both governments involved employed the cost-benefit analysis approach which was a display of indifference to public opinion, shown in their "assumptions about the nature of the problem studied, the methods to be used in solving it, and the proper application of these methods".<sup>3</sup>

The cost-benefit analysis used by the planners, assumes essential factors in plan-making can be quantified. The Canadian planners and policy-makers had no means of pricing unquantifiable items and so they were not considered. The Canadian planners were also under the impression that the "separate items that go into a cost-benefit analysis can be related by simply adding them up and comparing the sums".<sup>4</sup>

A final quotation from S. Budden and J. Ernst indicates just how appropriate the description 'embryonic state', from the Study Design, is.

"...the cost-benefit approach adopted by Canadian planners to technical and social problems--to social engineering--(believed) that all the factors it included in its analysis were the significant ones and, furthermore, that the values it attached to these items represented their proper weight as against all other factors. Incredible, of course. ....The decision to build Toronto II is an example

of what some critics have called "forward planning", or the projecting of growth into the future on the basis of the past but without ever questioning the value of this growth either for the past or the future.....it is increasingly apparent that we will have to plan for a technology that will suit the future rather than try to fashion the future to suit present technology."<sup>5</sup>

Decision-making literature, in contrast, is extensive. This thesis concentrates on rational decision-making theory and learning models of decision-making. These are major parts of a continuum. They provide the basic alternatives for airport planning and the key variable for consideration in a new model.

The major portion of decisions in both business and government are not of a well-structured, rational variety.<sup>6</sup> The author, Ruth Mack, examines the reasons for excessive uncertainty surrounding government decision-making. Her experience in the business world has revealed a myriad of decision-areas and objectives to go with them, that increase in complexity in proportion to the size of the project or enterprise undertaken. The uncertainty which accompanies major decision areas does not restrict itself to within the parameters of considered alternatives. Such uncertainty has been visible in the area of airport planning. Dr. Mack argues that in all cases, the cost of uncertainty must be kept to a minimum. The entire complex deliberative administrative activity has two facets -- one which is "task-oriented", the other, "person-oriented" -- and both must be pursued together. It is, therefore, imperative the process be inclusive of politics. For, as Budden points out, the Pickering decision was a political decision, not a planning decision.

### Hypothesis

The airport planning process, as is currently practised, employs a model which isolates evaluation activities from the decision-making activities. It is hypothesized that this approach is deterministic and ineffective, and that a new approach which employs the marriage of the above activities would be more appropriate.

## Organization of the Thesis

Chapter I introduces the notion of the need for a model. Chapter II of the thesis describes the Winnipeg Area Airports System Study. It provides the reader with a historical account of the development of the Winnipeg International Airport, and the designated responsibilities for airport facilities to federal authorities. A Model of the Winnipeg Area Airports System Study approach to planning was developed by the author and submitted to one of the five airport specialists for comments regarding accuracy. A simple description of the W.A.A.S.S. model is followed by a more involved conceptual description.

Chapter III contains a review of the literature up to this point in time. A Normative model developed by R. Sarly is compared to the W.A.A.S.S. model in search of criteria which would reveal similarities.

Chapter IV provides a critique of the model developed by Sarly and contrasts the criticisms of the Sarly model with the real world planning experience of W.A.A.S.S.

Chapter V describes a new model of airport planning which improves upon present airport planning practises and incorporates the suggested new directions.

Chapter VI discusses various new directions for airport planning based upon the conclusions resultant from the previous chapters.

Chapter VII is the discussion and conclusion section of the Thesis. The component of the proposed model, Public, is further discussed. The feasibility of implementing the proposed model will be discussed.

CHAPTER I      FOOTNOTES

1. W.A.A.S.S., "Study Design Project Work Plan", M.O.T., Winnipeg, 1975  
p. 2.01
2. Ibid, p. 2.01
3. S. Budden & J. Ernst, "The Movable Airport", Hakkert, Toronto, 1973,  
p. 164
4. Ibid, p. 165
5. Ibid, p. 166
6. R. Mack, "Planning on Uncertainty", Wiley-Interscience, Toronto, 1971,  
p. 6

CHAPTER II:

THE WINNIPEG AREA AIRPORTS SYSTEM STUDY

## 2.1 INTRODUCTION

In recent years most of the major airports in Canada have undergone a series of studies aimed at producing a Master Plan. This has been an ongoing effort by airport authorities to keep ahead of the growing demands cities have placed on airports. The radical demand for world travel, and intra and inter city commutation has grown at an explosive rate, causing airports to quickly outgrow present accommodations.

In Canada the building of airports, particularly in heavily populated areas, has been met with increasing confrontation from the public on the grounds of pollution, displacement of people and disruption of neighbourhoods.

Much criticism of the present airport planning practises such as the lack of co-ordination and co-operation between city and airports, and determination of safety standards, has been brought to the attention of airport authorities by serious professionals outside the Ministry of Transport. Many academics have joined forces with the public identifying the need to include all segments of society in plan-making which affects their lifestyle.

The airport is well on its way to becoming an integral part of urban transportation needs. A cursory examination of ridership trends experienced by airport authorities reveals the unprecedented volume of businessmen who depend upon air travel for work trips. A reason behind the current interest in Airport Master Planning is the demand cities have made regarding the future role and requirements of airports in their vicinity.

### 2.1.1. NATURE OF THE PROBLEM

Most Canadian cities have indicated their desire for planned development. Naturally, the future role and requirements of airports in their vicinity is a major concern. The airport is a distinguished tenant of most large urban centres whose services have come to be expected ---- in terms of efficiency, expediency and reasonable pricing for commutation.

The majority of the public expect airport authorities will display a certain responsibility in providing for future expectations concerning orderly growth, safety, efficiency and livability criteria. This expectation is perhaps due to the benevolent attitude government has displayed when defending their position in the face of any opposition;

but mainly because the general public want to believe the government is acting in their best interest.

The problems of the not so distant past regarding airport planning, suggests this area of planning is as yet in a rudimentary state. As the airport specialists for the Winnipeg Area Airports System Study comment: ".....Ministerial guidelines and methodologies are still in the embryonic stage."<sup>1</sup>

#### 2.1.2 ADMINISTRATIVE RESPONSIBILITY

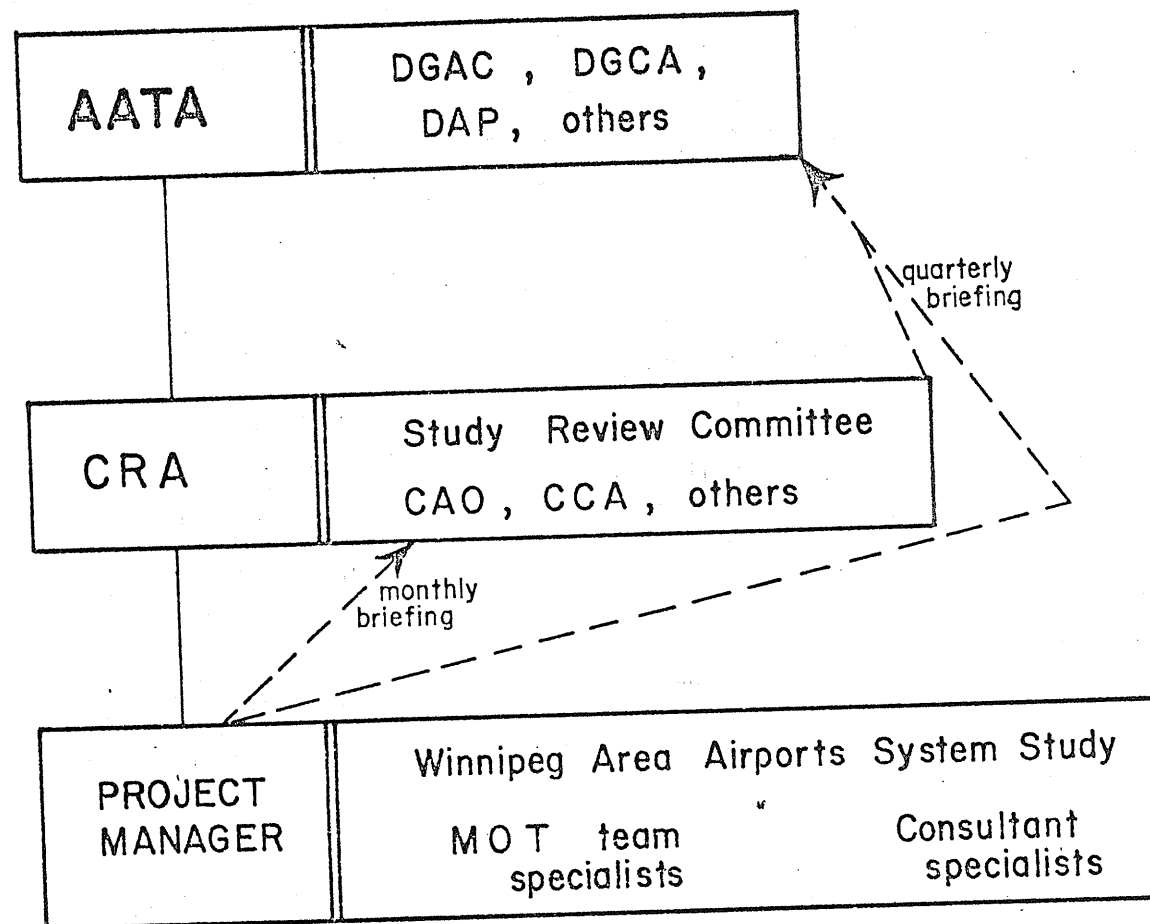
Master Planning for all major airports in Canada is the responsibility of the Canadian Air Transportation Administration. C. A. T. A. is one of three divisions of Transport Canada; the other two divisions are the Canadian Marine Transportation Administration (C. M. T. A.) and the Canadian Surface Transportation Administration (C. S. T. A.). All three departments through administrative procedures, report to the Minister or Deputy Minister whose staff co-ordinate the three departments. The Aviation Air Transportation Administration (A. A. T. A.) is the administrative headquarters for the C. A. T. A. and reports directly to the Minister of Transport or Deputy Minister. The A. A. T. A. defines the scope and objectives of the various studies throughout the country and is the source for the introduction of major airport studies. Their traditional role, once the study has been introduced, has been Master Plan approval. Comments from A. A. T. A. are the final step before Ministerial approval. (See Figure 1 ).

Presently, civil aviation is the prime responsibility of the Federal Government and is controlled by the provisions of the Aeronautics Act of 1927, as last amended in 1973.

Federal jurisdiction encompasses:

- registration of aircraft
- safety and control of aerial navigation and the construction and operation of airports as required in support of regular air services established in the public interest.
- qualifications and licensing of airmen
- handling of applications for licenses to operate commercial air services
- the economic control over the operation of air services which it has authorized.

While airport planning is a federal matter, municipal governments and, more specifically, larger urban centres, also have an interest. For example, the City of Winnipeg's Metropolitan Development



Source:

Winnipeg Area  
Airports System  
Study

**Figure 1**  
REPORTING RELATIONSHIPS

11

Plan, (1968)\* enunciated the following policy statements:

i Airports

Air transportation is primarily inter-urban. The nature of this mode of transportation necessitates it being the responsibility of Federal authorities. The role played by the municipal government is that of a secondary or supportive body. The municipal government's primary concern is with the activities on the land surrounding the airfields.

As well, it defined responsibility and policies of the Metropolitan Corporation in Regards to Air Transportation as:

1. To minimize existing conflicts and eliminate future conflict between airfields and adjoining uses of land in particular to give special attention to the relationship between airfields and future living areas.
2. To co-operate in the promotion of the metropolitan community as an air freight terminal and distribution centre by providing efficient thoroughfare connections and by any other means.

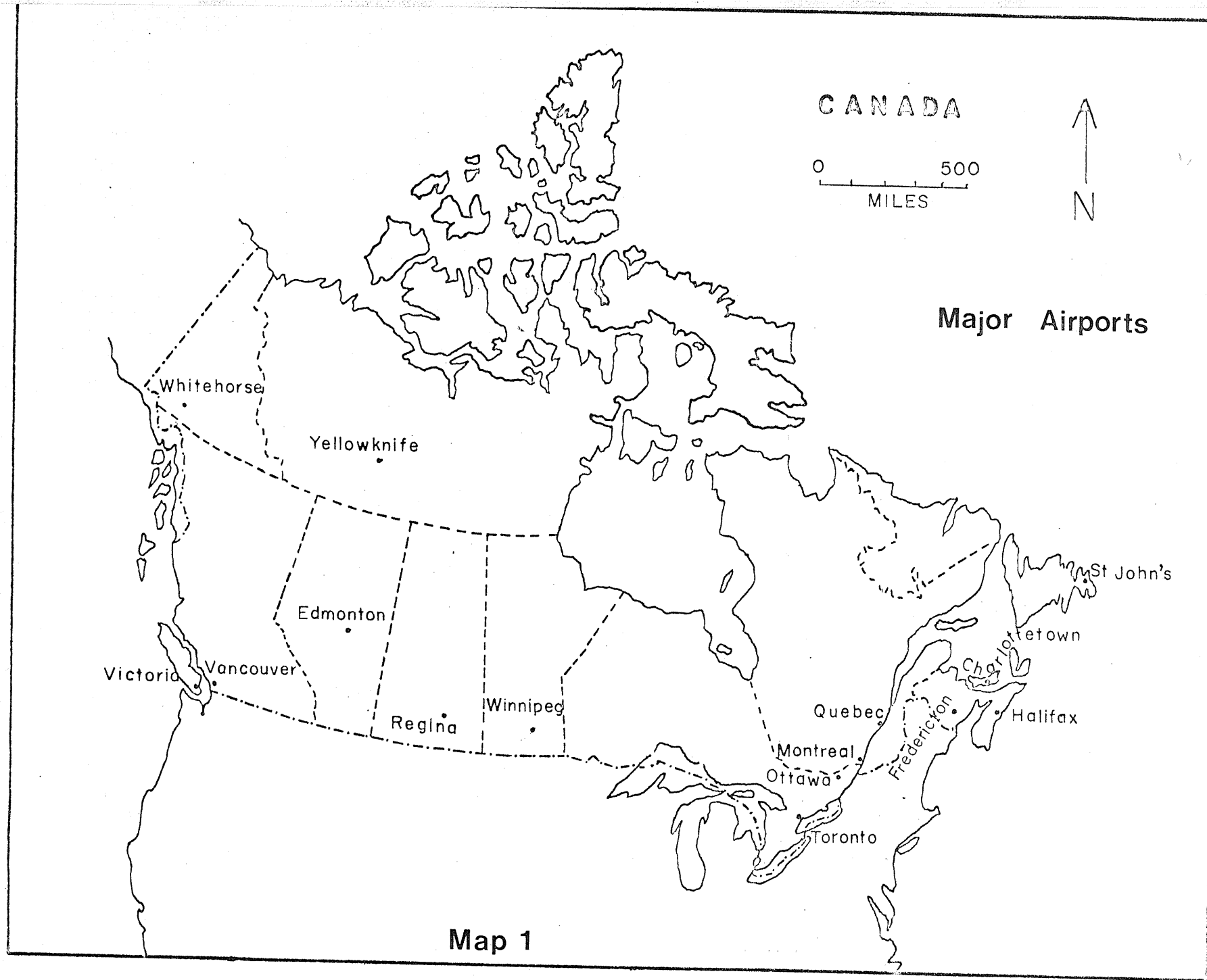
2.1.3. DECISION TO PLAN

In mid-January, 1974, a position paper was commissioned by the Regional Ministry officials outlining an optimum method for the fulfillment of the Ministry's commitment to airport planning as to:

"analyse and determine the current and future aviation requirements of the Winnipeg area"<sup>2</sup>

It was suggested a 'new' approach be adopted which would be more receptive than past approaches had been in such areas as environmental impact assessment, sociological implications, and public participation, where (as described in the W. A. A. S. S. Study Design) Ministerial guidelines and methodologies are "still in the embryonic stage".<sup>3</sup>

\* Formerly the Metropolitan Corporation of Greater Winnipeg amendments from Winnipeg Area Transportation Study, Winnipeg, 1964.



#### 2.1.4. DESCRIPTION OF STUDY AREA

The first semblance of an airport destined to become the Winnipeg International Airport was a 160 acre plot of land named Stevenson Field in honor of Captain F. J. Stevenson of Winnipeg. The Aviation League of Manitoba leased the land from the Municipality of St. James back in 1927. By 1937 the facilities were expanded to 620 acres and were being developed jointly by the Cities of Winnipeg and St. James under the direction of the St. James --- Winnipeg Airport Commission. Not long after this date a regular schedule of air services linked Winnipeg to all of Canada in a transcontinental air service. In 1940 the federal government, for military purposes, took over the airport operations, a transaction which continued up until 1958 when the federal government started procedures to bring all airport property under its ownership. To date the property covers an area of 4200 acres.

The airport at Winnipeg is the only major international airport between Toronto and Edmonton.\* It is located in the northwest quadrant of the city with an industrial area to the east and a residential area to the south. Figures from the Central Region of the Canadian Air Transportation Administration indicate at the present time approximately two million people per year arrive or depart from Winnipeg International Airport. This figure is expected to double by 1985 and triple by 1995. The total number of aircraft movements recorded at Winnipeg, St. Andrews and Portage South was 448,000 in 1974 and is expected to grow at a rate of 4 per cent per year. The amount of employment provided by the airport and its related industries is close to 6,000 jobs with a direct economic impact in the order of many million dollars per year. The capital investment in the airport is estimated to be between 500 and 600 million dollars.<sup>4</sup>

#### DISCUSSION

The Public appears as an additive to the concept involvement approach utilized by WAASS. Public participation has of late made irrepressible demands on the planning field, 'there should be some method to employ this energy into the planning methodology' captions

\* See Map 1

the WAASS strategy. Representatives were selected by their own associations and organizations to ensure the concerns of these bodies were made known to the planners -- how to deal with such concerns (contact and feedback process) was not elaborated upon. Designating a channel for pressure group input gains credibility for the planning process, however, the Airport Planning Consultative Committee functions as a referral and dissemination agent not as an interest to plan with where 'a process of mutual education leading to an exchange of information and opinions' between those affected and those who know how to effect, is pursued.

In recent years the Ministry of Transport has been in the process of developing a comprehensive National Airports Plan. In an attempt to rationalize the long-range planning of all major airports in Canada, the Minister of Transport, in September, 1974, announced that a long-range planning study of the airport and aviation facility requirements of the Winnipeg area would be undertaken.

The study area for Winnipeg has been defined as encompassing a 50 nautical mile radius around Winnipeg.\* This area includes 81 per cent of the catchment area for air passenger traffic originating or terminating through Winnipeg. It also includes a large portion of the private general aviation aircraft (35%) registered in Manitoba.<sup>5</sup>

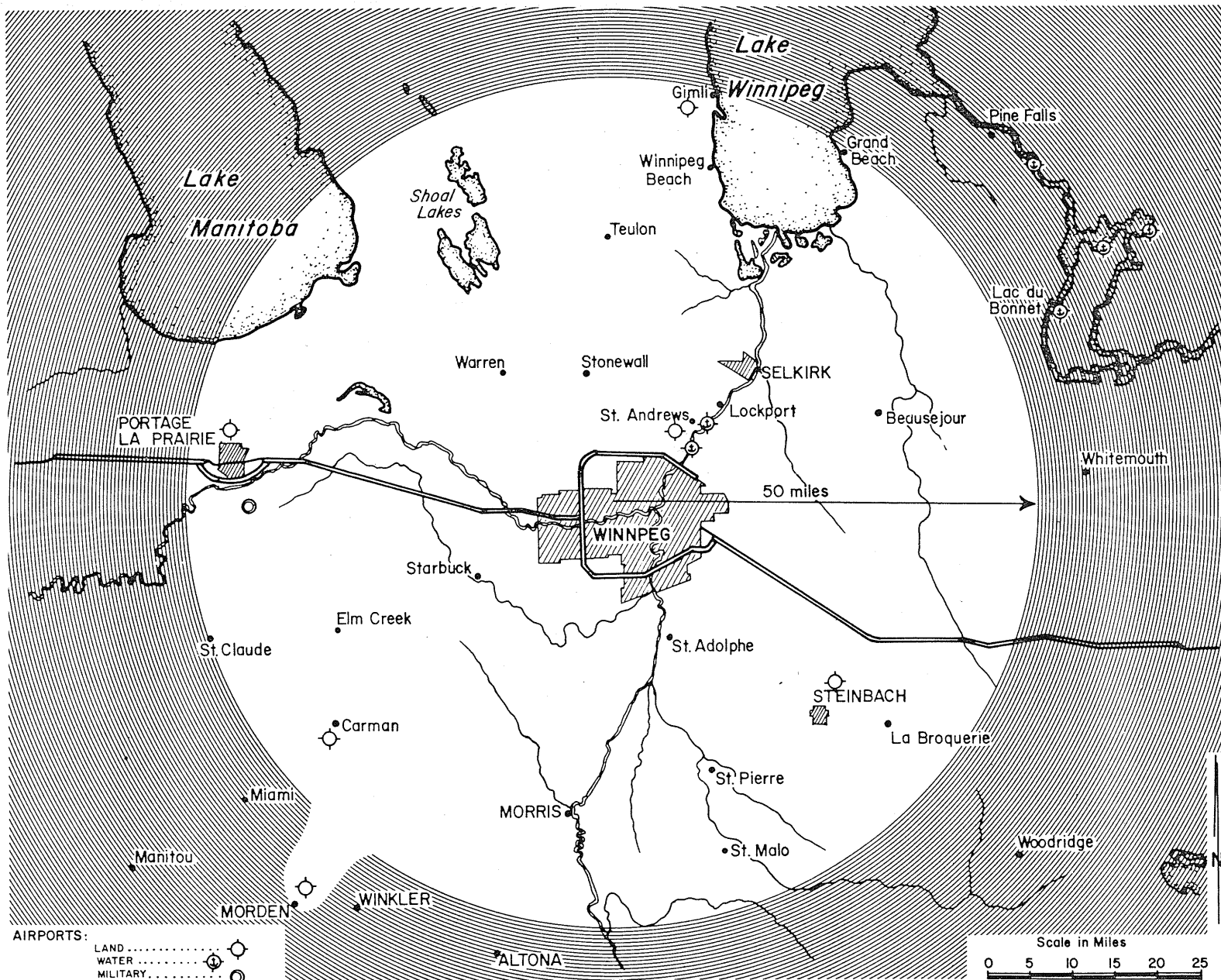
The W. A. A. S. S., in the publication "STUDY DESIGN/PROJECT WORK PLAN", refers to an 'Airports' System' which pertains to the supportive airports for aviation activities in the study area. Airports in the study area inclusive in the supportive role are those at Winnipeg, St. Andrews, Gimli, Portage la Prairie, Carman, Morden, Steinbach and other small airstrips.

## 2.2 W. A. A. S. S. METHODOLOGY

A 'STUDY DESIGN/PROJECT WORK PLAN', published in March, 1975, by the MOT\*\* describes the progressive study phases in the development of the Winnipeg Area Airports System Study Master Plan. It is intended to be the framework from which all areas of involvement receive direction.

\* See map of Study Area on next page

\*\* M. O. T. - Ministry of Transport



Source:  
Winnipeg Area  
Airports System  
Study

The W. A. A. S. S. methodology, which is the subject of this thesis, approached the planning exercise by first establishing a tentative model. The tentative model was designed to incorporate the maximum amount of flexibility concerning the ongoing revision of the planning model. Stated simply, the intent of the Study Design/Project Work Plan was to outline what had to be studied. It does not define or discuss methodology, strategy or objectives other than to state that the development of a Master Plan is the purpose of the study.

### 2.2.1 STUDY TEAM

A Project Management Team to manage the volumes of information was agreed upon as being the most appropriate course of action since the Ministry did not have the required expertise.

The WAASS team was drawn together for a specific task in order to reduce the amount of "traditional functional branch encumbrances". The overall lack of in-house resources and -- in many areas -- a need for expertise that does not exist within the Ministry is the rationale behind the Project Management approach, which was adopted. This approach began with the appointment of the Project Manager in March of 1974 from the section of the Ministry which deals with Telecommunications.

In April of 1974, staffing began to fill the five positions of the team specialists. The last position, Engineering, was filled after the team was well into Phase II of the project.

The five fields which specialists were appointed to were:

- Civil Aeronautics,
- Airports,
- Community/Environment
- Economics/Statistics
- Engineering.

The specialists were recruited on a term basis from Regional and Headquarters personnel.

The WAASS was an attempt to overcome the discrepancies of past practises prevalent in other airport planning projects; and, in an experimental manner, the development of a methodology which would satisfy the requirements for an airport system while accommodating the public

outcry for involvement.

Five fields of study with assigned specialists of the same amount was the essential feature of the approach. These specialists managed various studies, the majority of which were undertaken by outside consultants. The five 'Specialist Areas' drew up invitations to tender for competing consultants and accepted the various consultants' bids. This process was virtually the same throughout all five study areas which eventually formed the data base for the Master Plan. Upon completion of the Data Base study area, a reworking and redefinition of the work plan would, hopefully, unveil to the specialists the necessary ingredients for scope, structure and direction.

The projected lifetime of the project was two years. The expertise of the Ministry of Transport Regional office in Winnipeg and the National headquarters in Ottawa were available for supportive purposes. The aspect of the approach which is somewhat unique, is the frequent practise of engaging outside help where specialized expertise was required.

#### 2.2.2. ROLE OF CONSULTANTS

The W. A. A. S. S. methodology called for most studies to be undertaken by consultants, with the specialists acting in a managerial capacity. It progressed from a tentative model, through a random search for experts (the product of an elaborate referral system), into various revisions of the model according to the suggestions made by consultants engaged by the WAASS team. Various consultants were engaged by the team throughout the many studies undertaken which were later used to determine and define the scope, structure and direction of post-Data Base Studies. As the methodology progressed, composite variables submerged and/or were expanded upon. One such area of involvement was the study of the social environment. Consulting firms were awarded contracts wherein they examined the community-airport relationship. This is discussed in later sections.

#### 2.2.3. METHOD OF STUDY

An innovative approach, as far as the Ministry was concerned, referred to as "progressive", and based on the managerial theory of study involvement, was chosen because the nature of the project was that of a 'one-time' situation. The approach is centered around the

five airport specialists who are responsible for managing studies, undertaken by consultants. Some of the many studies undertaken by WAASS or consulting firms are described in later sections. A total of 32 studies were carried out, which formed the information basis for the project. The 32 studies were a part of Phase I of the WAASS, the Data Base Study. These studies were to indicate where problems may develop in the future if there are no changes. Some studies more relevant to the community are described here. The studies were designed to determine the inter-relationships between the airport and the community.

The framework of study activities can be conceptualized as falling into three phases. The first phase consists of the completion of various studies which comprise a major study area, the Area Systems Study. This phase, as revealed in the diagram on the following page, can be described as an inventory stage especially important in light of the fact that basic data on the Winnipeg International Airport is virtually non-existent. The study activities are grouped around three stages in the Area Systems Study phase --- a Data Base Stage, a System Deduction Stage and a System Selection Stage. The Data Base portion of the Area Systems Study is expected to consume approximately thirty per cent of the W. A. A. S. S..<sup>6</sup> The major input into the Systems Deduction process of the Area System Study however, will be the demands for aviation services and facilities identified in the Data Base Studies.

The next phase, referred to in this thesis as Phase II, introduces the start simultaneously of three major study areas with associated study groupings. (This can be seen by the examination of the diagram on next page). The three major study areas are the Major Airport(s) Master Plan Study, the Airspace Master Plan Study, and the Other Area Airports Development Plan Study. These three studies were to be integrated into the final document, The Area System Master Plan which is referred as Phase III. Integration of the studies was not attempted until the completion of the first two phases. The completion of the Area System Master Plan marks the termination of the study activities where proposals for implementation will be developed and WAASS will be terminated.

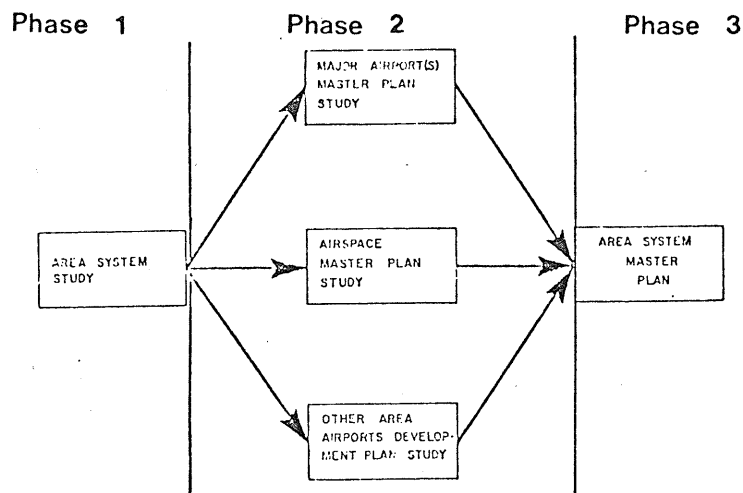


Fig. 2

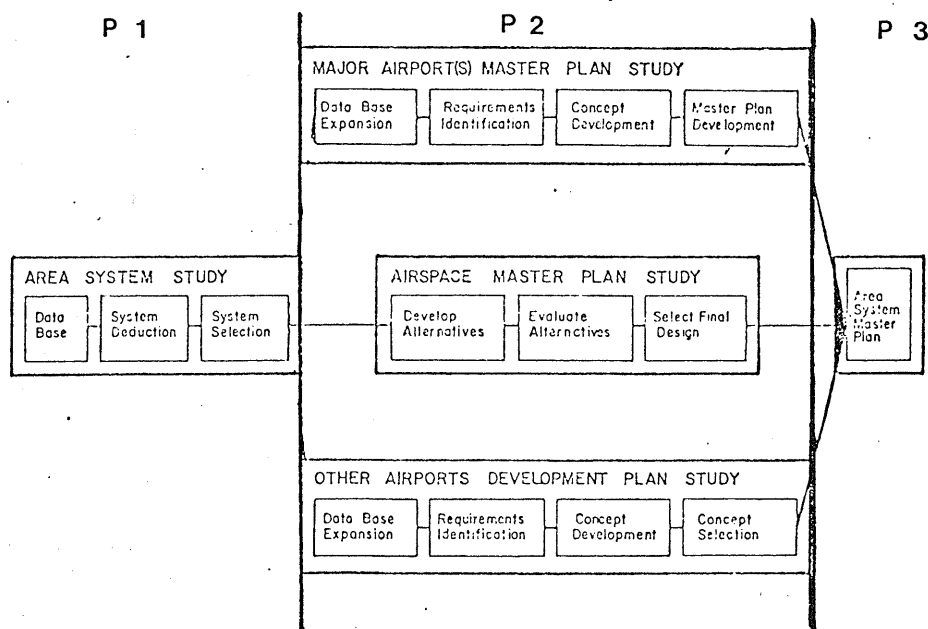


Fig. 3

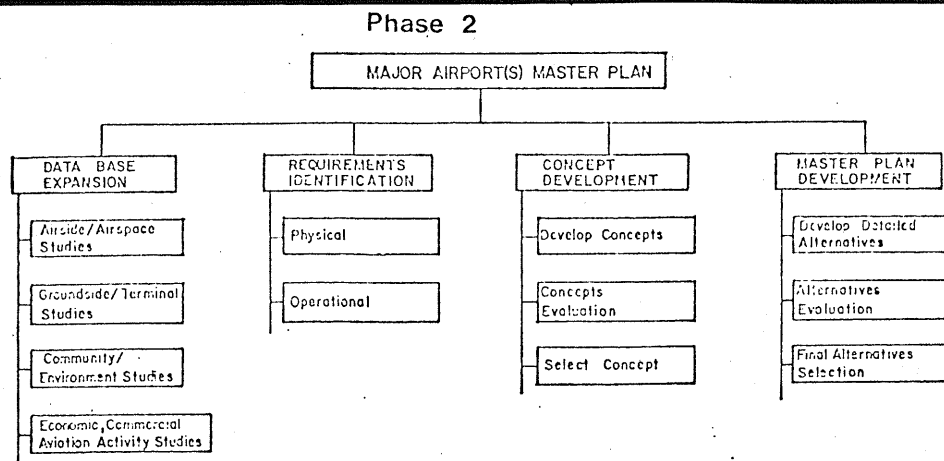


Fig. 4

#### 2.2.4 THE PUBLIC PARTICIPATION PROGRAM OF THE W.A.A.S.S.

A public participation program was started by the WAASS at the beginning of the study which was to allow a more integrated approach "than that used in the past" at other airports. A committee composed of representatives from government, industry, and the public was established which was named the Airport Planning Consultative Committee.\* The members of this committee were selected by their own organizations or associations to "ensure that the concerns of these bodies" were made known to the airport specialists. The WAASS refer to this aspect of their approach to participatory planning as innovative since:

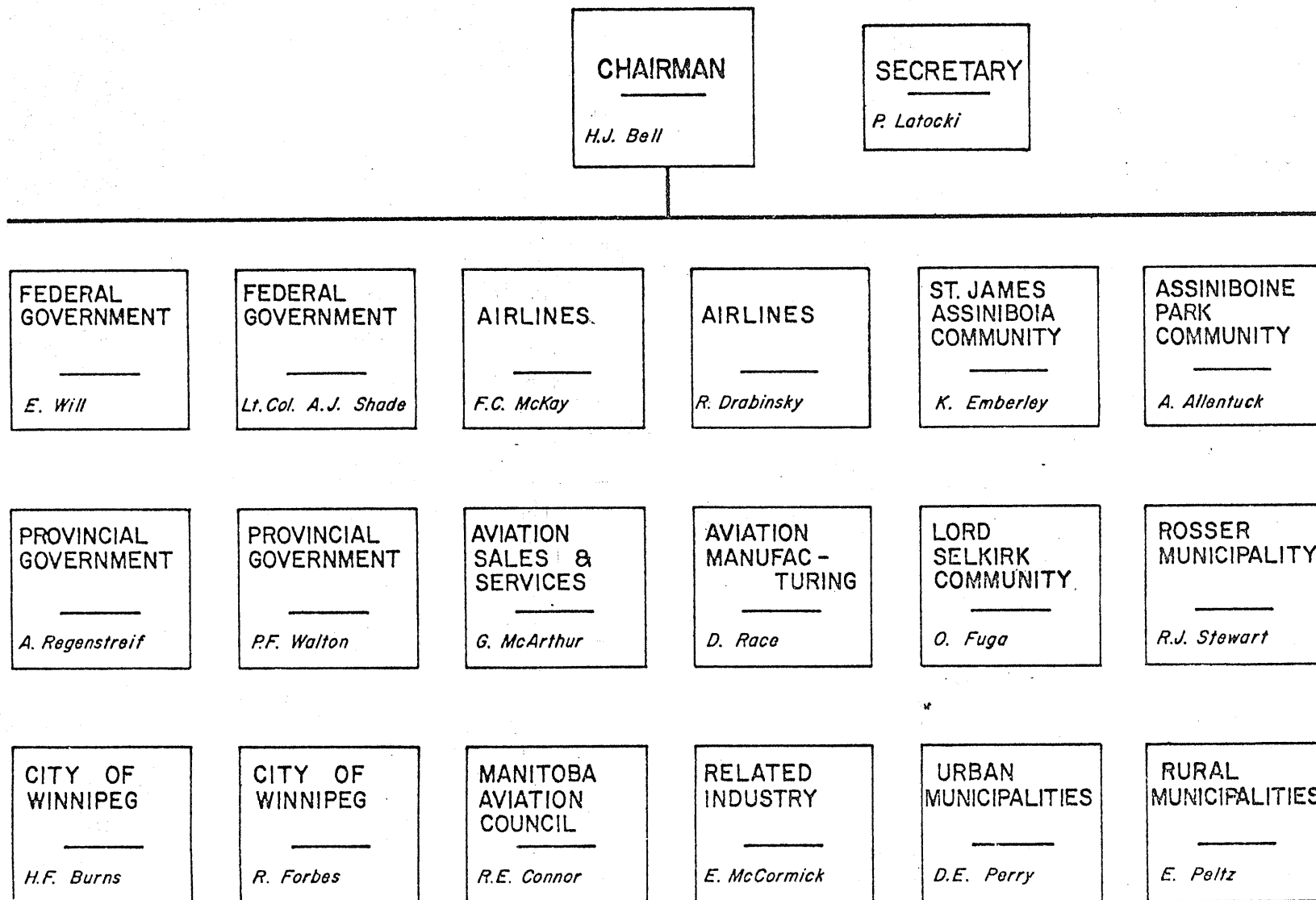
" Many divergent interests will work together and will attempt to develop an overview of the problems and concerns in a manner where the most reasonable plan of long-range development for airports can be integrated into the plans of others. This will allow airports and communities to develop and maintain continuing harmonious relationships."<sup>7</sup>

The members of the committee meet once a month to consult or advise the airport team on some of the problems which face the WAASS team throughout the study. The WAASS team recognized from the initial stages of the planning process that the members of the committee had much to offer. These organizations, it was stated in the Study Design/Project Work Plan, have access to information important in the development of the plan. The legitimate claim in the Study Design/Project Work Plan was made that plans to include all bodies concerned was consistent with an integrated approach to urban development. The figure on the following page will provide a list of the membership of A. P. C. C.

#### 2.2.2. DATA BASE STUDIES

Basic information on the Winnipeg International Airport was relatively sparse, therefore, the airport specialists had very little historical evidence to base projections upon. Since the magnitude of the project required a massive base of information, the Ministry of Transport began with a Data Base phase (which could be described as an inventory stage.) The Data Base phase included studies said to be the most

\* A. P. C. C.



Source:

Winnipeg Area  
Airports System  
Study

**Figure 5**

AIRPORT PLANNING CONSULTATIVE COMMITTEE

intensive ever to be carried out on a Canadian airport. The next section will describe some of the major studies undertaken at the Winnipeg International Airport by the W. A. A. S. S. team.

#### Economic Impact Study

This study was undertaken by the firm of McNeil, Hildebrand and Associates of Vancouver. The Newsletter 1 of the Spring, 1976, issue states the object of the study was to determine the economic significance of all the major airports in the study area. The study was designed to obtain the answers to three basic questions;

- the economic impact of airport personnel and tenants on the city,
- the capital and operating costs of the airport facilities,
- the economic significance of the airport to the community.

The information was obtained through the survey technique using 200 questionnaires and interviewing company accountants and presidents.

#### Forecasting Study

A Forecasting Study was carried out by the Aviation Planning Services, Ltd., of Montreal. Three techniques were used in forecasting:

1. Growth in aviation is related to growth of the economy. A broad economic indication which is more predictable than air traffic such as the Gross National Product is used to predict the future number of air passengers. It can be proven that there is a strong correlation between changes in the GNP and the number of air passengers.
2. Historical information is used to predict the future. That is, if it happened in the past, it is going to continue to happen in the future. It is possible to make assumptions which are consistent with historical data.
3. The third technique is intuition and this depends on the forecaster's broad understanding in the subject he is forecasting.<sup>8</sup>

#### Concerns of Community Leaders Study

A consulting sociologist, Peter Boothroyd, undertook this study which consisted of interviewing city councillors, MLA's, MP's, leaders of Resident Advisory groups, principals in schools, directors of hospitals and people connected with the media.

The study found that community concern increased with proximity

to the airport. Most of the 80 people interviewed felt that where the airport is now located was good, although most interviewees were not living within the noise contours.

The major issue was noise, with safety of people on the ground running a close second. The study revealed engine testing annoyed people as did the noise of low flying aircraft coming in at odd hours.

Air pollution was another concern expressed, with some suggestions initiated by citizens to move the runways out further.

#### Air Quality Study

The firm of Beak Consultants, Ltd., of Toronto, Ontario, was employed to predict levels of specific pollutants in the Winnipeg International Area and their impact on the local environment. Information on aircraft landings and takeoffs, the movements of cars, trucks and buses around the airport and other sources of pollution, such as heating systems, was collected. This information was used in combination with information about Winnipeg weather conditions.

The investigations indicated that the air quality would deteriorate over the next twenty years, but not in practical terms. This statement is very difficult to interpret; however, the Ottawa office of Transport Canada has suggested that during the 1980's a program of on-site monitoring should take place to monitor what in real levels those pollutants are.

#### Study of Aircraft Noise

This study was undertaken by the airport specialists of the WAASS team. The object of the study was to determine the levels of noise that can be expected at Winnipeg International and St. Andrews Airports, and the impact of noise on the residential population living below the flight paths.

It is predicted that the noise around the airport will diminish, although older, noisier aircraft will still be around for some time. The newer aircrafts now being built will be much quieter than the older aircraft, and, it is hoped, that as they are phased in, the noise will diminish. Aircrafts will never get 'quiet', although this term or word is used frequently. The study ends on the note, "Aircraft noise will continue to be a problem in the vicinity of airports through the time horizon of

this study (up to 1995). Although aircraft engines will be significantly quieter in the future, as long as aircraft create lift from the disturbance of the air, noise cannot be completely eliminated".<sup>9</sup>

#### Working Environment Study

This study was carried out by Damas and Smith, Limited. A questionnaire was sent out to about 1250 people employed on the airport site. Out of 1250 approximately 850 - 900 were returned. The questionnaire had employees indicate on a scale from one to five questions relating to job satisfaction, and whether or not they use the commercial facilities near the airport on the way to and from work.

Most employees were found to be satisfied with working at the airport, and would rather work there than at a downtown location. It was also found that the commercial facilities on the airport are not dependent on the airport for their economic viability.

#### Ground Transportation Study

N. D. Lea and Associates, Limited, in Ottawa, a consulting firm specializing in such studies, were given the contract for this study. This study was concerned with the immediate and future transportation accessibility in and around the airport grounds.

#### Community Concerns Study

A group of researchers at the University of Manitoba under the direction of Professor Mario Carvalho of the Department of City Planning undertook this study. The object of the study was to determine the attitudes and concerns of people living near Winnipeg International Airport towards the airport.

Questions about the amount of noise, the amount of privacy, the amount of shopping facilities available in the area and the householders' degree of satisfaction with them, were sent to about 2000 households. The results suggested most people are not at all concerned about airport noise. There is some apprehension regarding questionnaires returned from residents within the noise contours amongst interested professionals, since many residents said they liked the airport location. The study claims many of those questioned said that they regarded the airport as an urban amenity. A startling result also revealed by the study was that the Winnipeg International Airport does not have a dramatic effect on those living near it.

The point to be made is that these findings are not consistent with the results of similar studies carried out at airports in other major cities in Canada.

### 2.3. THE W.A.A.S.S. MODEL

#### 2.3.1. Development of Interpretative Model

Although no model as such was specifically identified, the procedures laid out by the M. O. T. assumed certain processes and a systematic approach to decision-making, which did, in fact, implicitly represent a model.

An interpretation of the planning model constructed by the author was submitted by the author to one of the five team specialists for comments regarding the accuracy of the conceptualization. This interpretation was supplemented with an explanation by the author and met with approval. The team specialist suggested the WAASS was not concerned up to that point with the development of a model, although they were about to look into it.

The diagram on the next page will, hopefully, be an aid in understanding the various theoretical assertions. This model was developed by the author with much difficulty, time and patience. It is based upon the description of the planning process as given by WAASS personnel in the Study Design/Project Work Plan. The reason the model may appear vague is because the WAASS team specialists were not certain what the model consisted of or should consist of when the Study Design/Project Work Plan was published. Although a model was the last thing they concerned themselves with, when the Data Base Studies section of Phase I of the project was completed, WAASS requested assistance from one of the consultants working on the 'Concerns of Community Leaders', but nothing productive came of it.

The WAASS team specialists were not familiar with the planning exercise which resulted in a lack of confidence in the initial stages of the planning process. This is reflected in the Study Design/Project Work Plan. The Study Design was an intentional attempt by the WAASS team to be as evasive as possible when describing the design of the study until more information became available. The document was a deliberate move to confuse and impress the reader while being non-committal; yet accomplishes the intended purpose of exposing the study to uninformed individuals. The Study Design is full of contradictions and suggestions without stating anything concrete about methodology, strategy or modelling. It is in the face of such controversy that the model is presented.

### 2.3.2 WORKINGS OF THE MODEL

The WAASS was used as a case study in this thesis to allow the researcher to compare and contrast a real-world situation, as it has progressed up to this point in time, with prominent theoretical postulates present in the literature. The investigation of the WAASS model simplifies the complicated planning process of this real world experience, to a level where one can more easily identify the implications of their approach. From this simplification a discussion may ensue regarding the strengths and weaknesses characteristic of the WAASS approach.

In this section the author will present a simple description of the WAASS model and will follow with a further section which contains a more detailed description of the individual components.

In simple terms the WAASS model description may begin with the Federal government which maintains central control through the Minister of Transport in Ottawa. The Canadian Air Transportation Administration reports directly to the minister and follows the guidelines set out for them by the Aviation Air Transportation Administration. A. A. T. A. define the scope and objectives of the various studies throughout the country and are the source for the introduction of major airport studies. The scope and objectives of the WAASS, as depicted in the diagram, flow from the AATA and Federal Government through the Administrative box, to the Process-Oriented box. Airport requirements are the major focal point of this area of involvement, which can be identified by the large portion of this area or box which is designated to 'airport requirements' and the offshoot studies undertaken initiating from this area.

Public input into the WAASS is received through the studies undertaken by consultants; depicted in the diagram as APCC in the box labelled Public. There are two parallel streams of flow through the model; which follow a linear direction. The airports requirements' are the highest level of flow, indicating its importance, the other study directional flow is through the compartmentalized studies which appear as an additive to the major study area. These two separate flows come together at the end of the Process-Oriented area or box which finds the WAASS team (Ministry personnel and consultants) integrating the findings of the three study areas with that of the process-oriented information flow. The WAASS team then determines the essential elements of the study findings and the



resultant effort is a Master plan which is forwarded to the Administration and government for approval (and refinement). This decision comes about as a result of the process shown in the diagram by following the broken arrows. From the Public box acceptance or rejection is determined and the stream returns back to Government for a final decision (after refinement).

### 2.3.3. MODEL COMPONENTS

Four areas of involvement form the genus of the model:

- the Government area of involvement
- the Administrative area of involvement
- the Process-Oriented area of involvement
- the Public area of involvement.

This description outlines the areas of involvement in the planning and decision-making process as realized by W. A. A. S. S. The WAASS model was characterized by the procedures of the Rationalistic model of the planning process.

#### Government Area of Involvement

A characteristic of the rationalistic model of the planning process is that decision-makers are removed from the evaluation stages or procedures in the planning process. Decision-makers such as government (representatives) are not involved in aspects of planning designated as being within the realm of the planning body. Once the Master Plan has reached the approval stage in the planning process, the planner has completed his function, and the plan comes under the responsibility of the elected representatives.

The Government can be understood easily by referring to this component as representing the implementers in the WAASS Model. The Government component provides legitimacy to the Master Plan which is the product of the WAASS, if the plan meets with their approval. The implementers determine the acceptability of the Master Plan in accordance with various constraints and in the best interests of the public whom they represent.

Boxes are illustrated as being areas of involvement since the responsibilities of the various components of the WAASS model are very clear-cut and regimental. The amount of overlap shown by each of

the boxes signifies the degree of interference or involvement incurred by the areas in question, with each other. The arrows indicate the direction of information flow and, therefore, the nature of the planning process adhered to by the WAASS. The merging of the two boxes, Federal Government and Administration, could be thought of as representing interests such as the Minister or Deputy Minister of Transport who wear the shoes of both responsibilities.

Government is the most powerful component of the WAASS Model and has the final say in all matters of importance, yet is shown as a small box which is indicative of its involvement in the model. Political interests may apply pressure to the Government in order to manipulate various studies or study results to their benefit. No other component of the model has the power to defy the government or even maintain opposition since any component of the model which might obtain significant results from the government would not be familiar with the manipulation techniques. Any component which might provide opposition does not have access to either information, organizational support or resources, or else they maintain a position which would be affected undesirably by such interference. The experts or specialists are dependent upon the implementers or Government component of the WAASS Model because the implementers provide the necessary resources, access to centres of decision-making, and client in general.

### The Administrative Area of Involvement

The Administrative component of the WAASS model controls the machinery of implementation, and is responsible to government for enforcement of the actions legitimized in the political arena. The reason government decides to initiate a study in a situation such as an airport, is related to the acceleration of the rate of change being experienced at a particular time and the difficulty of predicting what will happen next. Rapid and accelerating technological changes with their economic, social and psychological consequences are an important factor in creating excessive bureaucratic uncertainty.<sup>10</sup> This uncertainty experienced by administration creates a need for more knowledge about future expectations regarding airports. Uncertainty is one of the reasons the government is so highly dependent on the quality and reliability of the information, advice and guidance given to them by the specialists. It is the statements made by the Administration based on the evidence provided by the specialists which determine the influence which arises from this component. The position the Administration takes on certain issues will effect the expectations of other decision-makers. This component of the model is very complex, since it involves the technocrats who are directly involved in specific problem areas and the politicians who are quite removed from evaluation techniques and who are accountable for their actions to the Public.

Since the politicians do not appreciate the intimate relationships the technocrats engender concerning data gathering, probability, commitment, etc., it is an area of a great deal of uncertainty. The problem solutions must occur through effective communication, which introduces one of the Administration's major functions.

In the model not only are the specialists dependent upon the implementers for provision of resources and access to centres of decision-making but they are indirectly accountable to them. It is the Administration which provides access to the airport specialists with political entities through perpetual liaison. The Administration is the middle man striving for success or failure in bringing about policies the specialists delineate and pressures brought to bear by the political arena.

The Administration component of the WAASS model consists of the bureaucratic organization which makes up the Ministry of Transport. The regional administrations, the Ottawa Headquarters, the A. A. T. A. are all integral parts of the Administration component of the WAASS model. Very little input, however, is received by the Process-Oriented component of the model from any department within the Ministry of Transport other than C. A. T. A., (the air division). There is a strong element of co-operation within Administration, but a definite lack of, and need for, co-ordination.

The Administrative component of the WAASS Model brings together the implementers with the experts it was suggested earlier. The implementers are dependent upon the experts since they, (the experts) claim access to the tools of articulation of social change. The complex nature of governmental decision encounters necessitates the implications of alternative courses of action be understood in order to stay in office. This is the rationale behind the Federal Government's involvement with planning, and the need for experts or specialists. This is also the explanation of the inherent power available to the airport specialists which was not capitalized on.

Administrative jurisdiction, however, covers a wide spectrum of allegiances which is ample reason for mistrust and uncertainty on the part of the specialist. Although the specialists, through the planning process, can merely provide alternatives and their implications, to the less-informed politicians facing unpredictable intervention or pressure, it is how the alternatives or implications are presented which could be a major determinant of success or failure of plan implementation. This was not a strategy provided for in the WAASS Model, which will be discussed further in later section.

### Public Area of Involvement

The Public component of the WAASS Model consists of the Communities surrounding the airport, the elected representatives of the public who are not members of the Federal Government, and the general public. The elected representatives, in most cases are not informed in any greater detail or more frequently, and are not involved in the planning process to any greater degree than any other member of the Public component of the WAASS Model.

The Public appears in the diagram as a tangent to the studies of the Process-Oriented area of involvement, with the component Government, forming the only other tie. It appears as a tangent mainly because the Airport Planning Consultative Committee (A. P. C. C.) acts in the capacity of a referral agency and functions as a last minute check on study proposals and findings. The Study findings, passed on to the APCC by the WAASS team members who sit on the committee, are discussed by the members of APCC and reported to the various interest groups represented on the committee.

The darker lines show the direction of the planning process up until the completion of the Master Plan. The process finds the box shown as Master Plan, relating the Master Plan proposals to the box labeled Administration which then travels to the Federal Government through the Minister of Transport. From the Federal government the proposals are discussed in terms of acceptance or rejection and then are passed through this area of involvement to the Public area of involvement. This is shown by the lighter arrows in the diagram moving from Government through to public for acceptance or rejection.

It is the opinion of the author that an analogy exists between the WAASS conceptualization of the 'Public' component and that of Beneviste.

"They probably do not understand the complexities of the problem, their technical awareness is minimal, and who has the time to worry about them.....  
 ..(however)...., there also exists very real structural constraints. ...., even if planners understand the political implications of their actions, they are still limited in their ability to encourage participation."<sup>11</sup>

Benveniste continues with a description of planners and experts which is an accurate portrayal of the strategy followed by the specialists in the WAASS

".....(they) tend to emerge as the equivalent of selective filters for communication and decision ..  
.. They use their available time to consult in selected circles. Since they limit participation in planning they permit information and influence to flow only within a selective portion of the body politic."<sup>12</sup>

A suggestion was made in a study by D. Smith on public participation, which gives some evidence as to the accuracy of this portrayal. In this report Smith suggested quite strongly that the APCC membership be enlarged to include a greater segment of the Winnipeg community as the study involvement increased. WAASS has not as yet enlarged the APCC. The issue this brings up in relation to the case study is that the WAASS model was not designed to deal with change in study direction or incorporation of interests not initially conceived. The nature of this selective process: who participates and who does not, is a point which must be kept in mind in later sections of the thesis where the interpretation of the relevance of a participation program is essential in the determination of a planning model for it to be considered an improvement over conventional practises.

An essential component of one of the sub-models of the area of involvement shown as "Public" is the box illustrated as A. P. C. C. The APCC membership consists of 20 people, four of whom could be acknowledged as viable agents for the communities they represent. The only access the model retains for Public input into the Master Plan determinism is through the studies undertaken by consultants.

The APCC is geared more towards satisfying the vested interest groups concerned with the airports future location.

The administration is shown as forming somewhat of a tie with the public. The benefit of the doubt has been shown to the administration since they appear to have developed policies which support the use of citizen involvement. There is documentation to attest to this support. The rationale behind this support will be presented from a report on Branch Policy Regarding Public Participation In Airports Planning Projects of the Ministry of Transport.

The objective behind their strategy is as follows:

To allow all individuals involved with and affected by air transportation facilities and plans for these in the future; an opportunity to effectively participate in the planning of these facilities.

The Background behind the formulation of such policy is given in the report as being

In the past, transportation facilities were generally planned and developed in isolation from outside interests. At this time it is essential that when a facility is being planned, where public funds are involved, and where the facility will have an impact on the well being of the people and the environment (in which-ever respect), the public be allowed, in fact encouraged, to participate in some meaningful way in the planning of such projects.

The definition of Public Participation, always a very important determinant of the success of the program, and sincerity of the planners is also given in the report:

"public participation is a process of mutual education leading to an exchange of information and opinions between the public and the planners".

The publication continues on the consultation theme, saying that, besides being educational, this process can ensure more responsible planning by allowing those persons affected by such planning to be a part of it. The Ministry has adopted a very positive attitude to this process. Being a government body they are entrusted with public funds and any way of making sure this money is spent properly is politically attractive and an asset to the government process.<sup>13</sup>

Representatives of government, industry and the public sector were selected to serve on a body known as the Airport Planning Consultative Committee. The main responsibility of A.P.C.C. is to "maintain an overview of the progress of the planning team and to make recommendations as to how best the team can approach the solution to problems that have consequences of concern to many".<sup>14</sup>

The APCC has 20 members, four of whom are citizens representing public input. The members of the committee act in a capacity similar to reporters in that they relate study progress to their various organizations.

Access to input channels are provided for, to interested citizens who wish to express their concerns to the WASS through APCC, although very little interest has been shown due to the technical nature of most of the data presented to date. The suggestions or concerns are presented to APCC

who in turn discuss the pros and cons of the issue and make comments (and where necessary, reply to the interested party). Of immediate concern to the specialists, is the provision of information from the Area System Study on airport planning alternatives to the APCC and other interest groups. Due to the technical nature and after-the-fact pressures of most of the issues there is very little input from this component.

The APCC is depicted as sharing the box with public, since if it were expanded (the membership), as various other authorities besides the author suggested, it could be an acceptable tool for gaining public interest. This is due to the functioning of the political structure of the Unicity Act, in Winnipeg, which utilizes the community interest. APCC capitalizes on the already established community committees and resident advisory groups. These groups, if provided with various forms of resources could be an exciting and acceptable means of 'getting at' the real community issues and opinions. The community committee and resident advisory group concepts will be discussed in the thesis Discussion section as will the utility in using citizen interest and energies.

### The Process-Oriented Area of Involvement

The Process-Oriented area of involvement of the W. A. A. S. S. model consists of the airport specialists, consultants and in-house expertise of the Ministry of Transport.

This component of the WAASS model introduces the rational and systematic procedure of identifying the airport resources and projecting airport needs. It comprises a Statistical-Historical approach<sup>\*</sup> which sets the framework for the study. It seeks a comprehensive revelation of system requirements and operationalism, towards the rational solution implementation. The approach sanctioned by WAASS has been developed through a systematic progression of three separate phases which were discussed in earlier sections.

An inventory phase elicits various social, economic and political forces of airport environ ideals, and priorities are ranked according to airport entente. Airport requirement criteria, environmental concerns and community cohesion are the subjects of major in-depth studies referred to by WAASS as the Area System Study, although airports' requirements are the overriding theme. These studies are the only divergence from the traditional historical-statistical approach the Ministry of Transport has been rather consistent in adhering to in airport planning.

The overriding theme of airports' requirements is described in the Study Design/Project Work Plan as:

" The overall objective of the Area System Study is to determine through the time horizon of the study and for options beyond, the general locations and roles for a system of airports and aeronautical components in the study area."<sup>15</sup>

The approach provides an orderly course of study leading to the development of the Winnipeg Area Airport System Master Plan in a proficient, specific, end-product-oriented undertaking. It follows a rational procedure where milestone events are easily identified. With the stringent advocacy of milestone compliance, they could very

\* The approach or method employed by W.A.A.S.S. is a combination of the Historical and Statistical methods. Historical methods which look at source material in some ideographic way in order to obtain both typical and generalized, as well as singular or individual, interpretations of historical situations, developments, etc.

Statistical methods comprise all methods of exposition relying on the collection and analysis of large amounts of observational data obtained by measurement, calculation, etc.

well be the first Airport Planning team to achieve success within the designated time frame or a reasonable one.

It is noteworthy that the Study Design/Project Work Plan relates the strategy of the approach as attempting to identify study elements for post-Data Base Study areas would "undermine the results of the Data Base Studies and would make the planning exercise deterministic."<sup>16</sup> The elements identified in the Data Base Studies are to be mobilized when generating alternatives for the last phase of the approach for the Area System Master Plan.

As depicted in the diagram, the Process-Oriented area of the model finds major involvement in the airports requirements determinism. The diagram illustrates the linear nature of deliberation followed by WAASS referred to by themselves as 'progressive' where, because Ministerial guidelines and methodologies are still in the embryonic stage WAASS utilizes the extensive use of consultants.

In the diagram, the WAASS component of the model fulfills the conventional technical ad hocism government is noted for. The major disfunction of the conventional role definition is that the expert is confused about the relevant client and, therefore, the political actors.

"He does not perceive the difference and relative importance of implementers and beneficiaries.... If the expert plays the political dimension of his role at all, he is forced to do so under the guise of searching for information or consulting knowledgeable practitioners. He is not able to devote much time to these political activities since he is not expected to carry them out.

The conventional role definition obscures the relative importance of the political actors with whom the expert could negotiate. His professional assumption..... makes him lose sight of the fact that (the one) who hires him does not always control, or is not always a representative of, the implementers and beneficiaries. The expert therefore, fails to see the linkages of his own intervention to the client-implementer-beneficiary system".<sup>17</sup>

This conventional role played by the airport specialists often sees the implementers as the opposition who are so removed from the facts that trying to coerce them into changing their ways seems a waste of time. Benveniste claims that ultimately, since the beneficiaries or public do not seem to understand the situations they find themselves in, the expert comes to believe that planning must be imposed from the top "because the beneficiaries at the bottom cannot perceive the outcome of their own actions."<sup>18</sup>

## 2.4 SUMMARY & CONCLUSION

The characteristics of the WAASS model are summarized below, which will prove useful in later sections.

### A. Centralized Control (from Ottawa)

- planning methodology derived at headquarters in Ottawa.
- Information flow is from the 'top' down.
- confusion regarding model components.
- no problem identification stage.
- poor integration of study findings.
- inconsistencies in areas of decision-making.
- lack of confidence in study design.
- regimental design.

### B. Public Participation Program

- not representative.
- confusion surrounding actual client.
- inefficient participation program.

### C. Rational, Systematic, Process-Oriented Approach to Planning

- decision-makers for the most part removed from the planning process and unfamiliar with study design or progress.
- excessive uncertainty.
- political arena is an exogenous factor.
- individual component control over their realm of influence.
- priorities are ranked according to airport requirements determinism.

It will be shown in subsequent chapters that the criticism of the rationalistic model are also characteristic of the WAASS Model. These criticisms will eventually be improved upon by the introduction of a new model for airport planning.

## FOOTNOTES CHAPTER II

1. W.A.A.S.S., Study Design/Project Work Plan, Transport Canada, March, 1975, p. 2.01
2. W.A.A.S.S., *Ibid* p. 1.01
3. W.A.A.S.S., *Ibid* p. 2.01
4. Winnipeg Area Airport System Study, "Newsletter 1", Spring, 1976, Transport Canada p. 1
5. W.A.A.S.S., *op. cit.*, *Ibid* p. 1
6. W.A.A.S.S., *op. cit.*, p. 9.02
7. W.A.A.S.S., *op. cit.*, p. 8.01
8. W.A.A.S.S. "Newsletter 1", *op. cit.*, p. 2
9. W.A.A.S.S. "Newsletter 1", *op. cit.*, p. 2
10. G. BENVENISTE, The Politics of Expertise, The Glendessary Press, Berkeley, California, 1972, p. 9
11. G. BENVENISTE, *Ibid*, p. 13
12. G. BENVENISTE, *Ibid*, p. 14
13. Transport Canada "Branch Policy REgarding Public Participation In Airports Planning Projects", Systems and Procedures Airport Master Planning, Western Region, Prepared By: Airport Planning Division, June, 1974. p. 88
14. W.A.A.S.S., *op. cit.*, p. 8.01
15. W.A.A.S.S., *op. cit.*, p. 9.01
16. W.A.A.S.S., *op. cit.*, p. 4.01
17. G. BENVENISTE, *op. cit.*, p. 13
18. G. BENVENISTE, *op. cit.*, p. 15

*CHAPTER - III*

*NORMATIVE-RATIONALISTIC MODEL*

### 3.1 INTRODUCTION

The literature is not very definite regarding many aspects of the planning process, moreover, there seems to be little agreement as to what is the "best" approach to planning. For example, the author has selected one component common to the WAASS Model and the Proposal Model to show how controversial planning concepts can be.

"Public" was the component selected to be discussed in more detail in Chapter VII. However, the Public component is not the only area in which conflict or uncertainty exists. Similar conflicts exist in a number of areas, notably so in decision-making as will be seen in this chapter.

The purpose of this chapter is to identify the strengths and weaknesses of existing models in the pursuit of a model which is more reliable.

Upon the examination of the basic approaches to decision-making, some idea of the kinds of improvements over past models we can expect in future models will result. This will be realized after a critical examination of the Normative Model of the Rationalistic approach to decision-making as developed by R. Sarly under the direction of N. Lichfield.

Robert Sarly incorporated thirty-three distinctly different models of a rational planning process into a Normative Model of the planning process. Sarly's Model was used by the author in order to provide contrast and comparison with the WAASS model.

The WAASS model was used as a case study because the author worked for the Ministry of Transport, or the W. A. A. S. S. planning team. It is one of the largest studies undertaken on airport planning in Canada and is also the most recent study.

This chapter will see the criticisms of the rationalistic approach to decision-making applied to the Normative model developed by Sarly. These criticisms will then turn to the WAASS model to ascertain how relevant these criticisms are, as applied to the case study. From these criticisms the direction for the proposed model will be clearer.

### 3.2 Normative Model Developed by Sarly

Robert M. Sarly has developed an analytical tool for model-builders which may be considered to provide "a framework as an aid to understanding and comparing the procedures adopted in some real world planning studies."<sup>1</sup> It is designed to be both rational and comprehensive, in that the procedure can be given a "reasoned justification and relates to the course of planning activity from the time a problem is perceived to exist through to the decision on a preferred course of action, its implementation and review."<sup>2</sup>

As such, it affords an excellent opportunity to review for criticism the rationalistic approach to decision-making. The generalized normative model will serve as a reference framework against which to pit the W.A.A.S.S. model. This comparison will allow us to ascertain the extent to which the rationalistic approach to modelling stands up to the criticisms of a real world situation (case study).

An extensive review of the literature by Sarly allowed the research team to examine thirty-three distinct models of the planning process, both normative and descriptive. These models were selected from the context of American and British academic literature which were identified, reviewed and compared.

The purpose of Sarly's research was to develop criteria for a generalized model of a rational planning process. The models chosen by Sarly were an attempt to reflect the concern for achieving rational planning, "if not the actual achievement of rational planning in the context of a rational planning process."<sup>3</sup> Sarly gives the definition of a rational planning process as:

"A rational planning process is here thought of as an intentional course of activity, the purpose of which is to facilitate an understanding of alternative possible solutions to problems and the choice between those alternatives. It is rational if it can be justified or defended by reasoned argument."<sup>4</sup>

The Sarly Model in its various formats ranging from the generalized model to the descriptive model gives a good account of the planning process as a normative proposal of the activity groupings

that "should be found in some form in all planning procedures."<sup>5</sup> The typical rationalistic approach is advocated where the administrative and decision-making spheres are separate but cross over into the planning process. It is typically the decision-making sphere, which is rather removed from the planning process, which legitimizes problems and authorizes planning.

Sarly, however, hints at a problem area which has been discussed as being typical of the rationalistic approach when he indicates the intent of his work as:

"...to construct a planning process in such a way as to provide an analytical context\*for a subsequent investigation of the improved use of evaluation methodologies in the planning process, through an examination of recent studies."<sup>6</sup>

To provide the "analytical context", Sarly identified, reviewed and compared thirty-three distinct models of the rational planning process. Through these comparisons Sarly constructed a classification of planning activities from which the structure for a generalized model of the rational planning process was established. His model was derived from the research of certain views expressed in the academic literature. The three stages by which Sarly accomplished this were:

"First, each model is recorded in its original form, as a Reference note, and compiled in a supporting document. Second, each of the models is transposed onto a common frame of reference involving the translation and interpretation of the specialized terms. Third, the models are compared so as to identify their similarities."

\* emphasis by author

### 3.2.2. R. Sarly's GENERALIZED MODEL

The model developed by R. Sarly fairly represents the views of the generalized planners.

The table below provides a descriptive model of the rationalistic planning process. The numbers on the left of TABLE I correspond with the numbers presented in TABLE II. (Table II is a more detailed description of the planning process presented in Table I.)

TABLE I

R. SARLY'S  
NORMATIVE GENERALIZED MODEL OF THE PLANNING PROCESS

1. PRELIMINARY PROBLEM RECOGNITION AND DEFINITION.
2. DECISION TO PLAN AND PLANNING SYSTEM DEFINITION.
3. DATA COLLECTION, ANALYSIS AND FORECASTING.
4. DETERMINATION FROM STUDY OF CONSTRAINTS,  
OPPORTUNITIES AND PLANNING OBJECTIVES.
5. FORMULATION OF PLANNING NORMS, STANDARDS AND  
SECTORAL OBJECTIVES AS BASIS FOR DESIGN.
6. DESIGN OF ALTERNATIVE PLANS.
7. TESTING OF ALTERNATIVE PLANS.
8. PLAN EVALUATION.
9. DECISION MAKING.
10. PLAN IMPLEMENTATION.
11. REVIEW OF PLANNED DEVELOPMENT THROUGH TIME.



### 3.2.3. R. SARLY'S DESCRIPTIVE MODEL OF THE PLANNING PROCESS

The model below is a detailed description of the Normative Model developed by R. Sarly. The numbers on the left side of Table 2 correspond with the numbers presented in Figure 1 of this chapter.

The activity groupings are depicted in Figure I according to the acting body which is responsible for particular function.

The descriptive model of the planning process is meant to be a sufficient but not a necessary designation of planning activity for all planning processes. It consists of the following 43 activity groupings:

TABLE 2.

1. PRELIMINARY PROBLEM RECOGNITION AND DEFINITION.
  - 1.1 Surveillance of field of interest.
  - 1.2 Determination of acceptable conditions in field.
  - 1.3 Analysis of field.
  - 1.4 Comparison of actual, or projected, conditions in field.
  - 1.5 Assessment of problem significance.
2. DECISION TO PLAN AND DEFINITION OF PLANNING SYSTEM.
  - 2.1 Decision to plan.
  - 2.2 Determination of decision-makers' goals.
  - 2.3 Determination of planning machinery.
  - 2.4 Estimation of resource requirements for planning study.
  - 2.5 Initiation of planning activity.
3. DATA COLLECTION, ANALYSIS AND FORECASTING.
  - 3.1 Review of problems as the basis for study.
  - 3.2 Structuring of the planning problems.
  - 3.3 Identification of higher and lower level planning constraints.
  - 3.4 Review of related studies and problems.
  - 3.5 Data collection for problem analysis.
  - 3.6 Analysis of data.
  - 3.7 Forecasting.

- 3.8 Summary of the nature of the planning problems.
- 3.9 Formulation of proposed approach to solution of planning problems.
- 3.10 Determination of evaluation data requirements.
- 4. DETERMINATION FROM STUDY OF CONSTRAINTS, OPPORTUNITIES AND PLANNING OBJECTIVES.
  - 4.1 Identification of constraints.
  - 4.2 Identification of opportunities.
  - 4.3 Determination of the range of possible planning objectives.
  - 4.4 Selection of objectives for planning.
- 5. FORMULATION OF PLANNING NORMS, STANDARDS AND SECTORAL OBJECTIVES AS BASIS FOR DESIGN.
  - 5.1 Description of planning objectives.
  - 5.2 Translation of planning objectives into norms, standards and sectoral objectives for design.
  - 5.3 Determination of design programme and brief.
- 6. DESIGN OF ALTERNATIVE PLANS.
  - 6.1 Selection of design procedure(s).
  - 6.2 Generation of alternative plans.
- 7. TESTING OF ALTERNATIVE PLANS.
  - 7.1 Testing for internal consistency.
  - 7.2 Comparison of plan designs with constraints, planning standards and planning objectives.
  - 7.3 Assessment of feasibility of plan alternatives.
- 8. PLAN EVALUATION.
  - 8.1 Evaluation of alternative plans.
  - 8.2 Making of recommendations, if any, to decision maker(s).
- 9. DECISION MAKING.
  - 9.1 Description of decision making criteria.
  - 9.2 Collaboration among decision makers.
  - 9.3 Taking of decision.

DESCRIPTIVE MODEL OF THE PLANNING PROCESS ORGANIZED  
 ACCORDING TO ACTING BODY  
 -R.Sarly

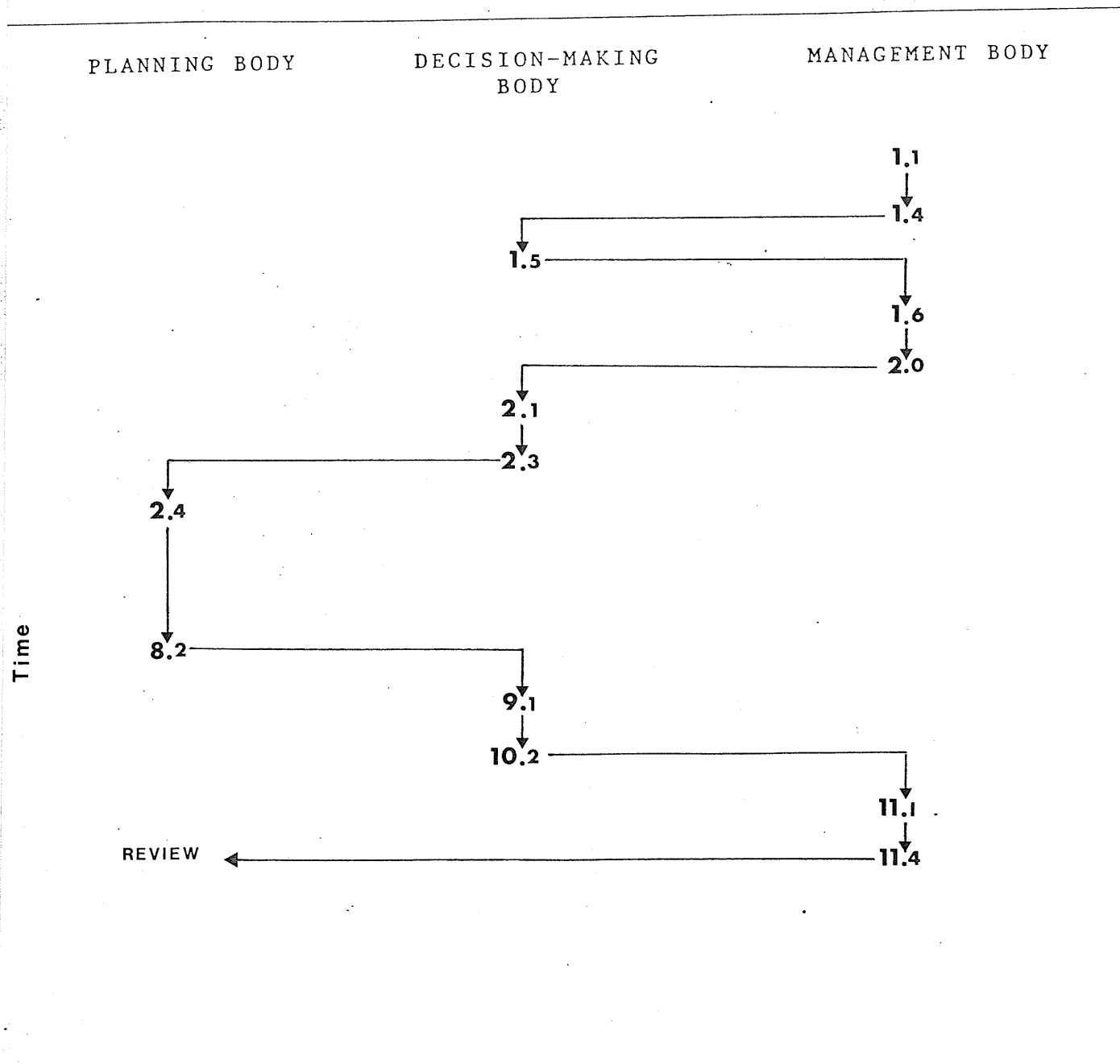


FIGURE 7

\* Numbers correspond to model depicted in TABLE 2

10. PLAN IMPLEMENTATION.

- 10.1 Establishment of machinery for implementation.
- 10.2 Initiation of planned development.

11. REVIEW OF PLANNED DEVELOPMENT THROUGH TIME.

- 11.1 Observation of consequences of plan through time.
- 11.2 Analysis of new conditions in field.
- 11.3 Comparison of conditions resulting from plan with desired conditions in field.
- 11.4 Assessment of problem significance and recycling to step 1.5 above.

TABLE 2 is a descriptive model of the planning process which was slightly simplified from the figure given by Sarly. FIGURE 7 shows the planning process and the various related activities which were organized according to the acting body responsible for the activity.

### 3.2.4 DISCUSSION OF MODEL

#### 3.2.4.1 Application

The model developed by R. Sarly was a rational comprehensive model derived through the comparison of rational models of the planning process.

It is the shortcomings in the interrelationships between evaluation and other activities in the planning process which was the focal point of Sarly's investigation. It was the intent of his research to determine ways of overcoming the limitations in practice by better integrating evaluation into the planning process as a whole. Improvements were sought to the way in which evaluation was related to other tasks and activities within the planning process.

Evaluation was defined by Sarly as:

"The formal analysis of plans or projects in terms of their likely effects for the well-being of those individuals or groups of individuals who are potentially affected by the decision, and thereby the implications of the alternatives for the welfare of society as a whole."<sup>8</sup>

In the past it has been very difficult to compare which model was best suited for which situation or project since there was no common frame of reference whereby various models could be compared. Sarly has done valuable research by examining several analytical viewpoints of the planning process. There is now available criteria by which differences between various models and approaches may be identified. As Sarly himself states,

"The use of the classification of planning activities as a template or checklist is two-fold. First, it generates a measure of the concentration of activities throughout the planning process. This helps to establish the activities in need of greater, or lesser, specificity of detail (or aggregation), and it may help to identify some of the relationships between evaluation activities and other kinds of activities within the planning process. Second, it provides

characterisation of the case studies being considered. It enables identification of their common structure and their differences. Finally, by highlighting their differences it suggests the identification of possible problem areas in the planning processes of the case studies being considered."<sup>9</sup>.

#### 3.2.4. 2 Restrictions

Sarly encountered some difficulty in developing a framework from which to compare distinguishing features of various models of a rational planning process.

One of the difficulties Sarly experienced and which the author endeavours to alleviate in the proposed model, was that the models encountered by Sarly were characteristic of a very alarming feature (supportive of the criticism of the rational planning model) that values and facts, means and ends cannot be clearly distinguished. A feature of these models was that they contained no criteria to distinguish an improvement from a deterioration.

Some problems Sarly encountered in his investigation were:

- widespread agreement on the definition of a supposed unique or ideal model of the planning process does not exist.
- it is very difficult to establish from the literature the criteria by which specific actions are aggregated into broad groupings and classified within activity stages

The Rationalistic models and the model developed by Sarly are subject to the same shortcomings.

## ROBERT SARLY'S MODELS

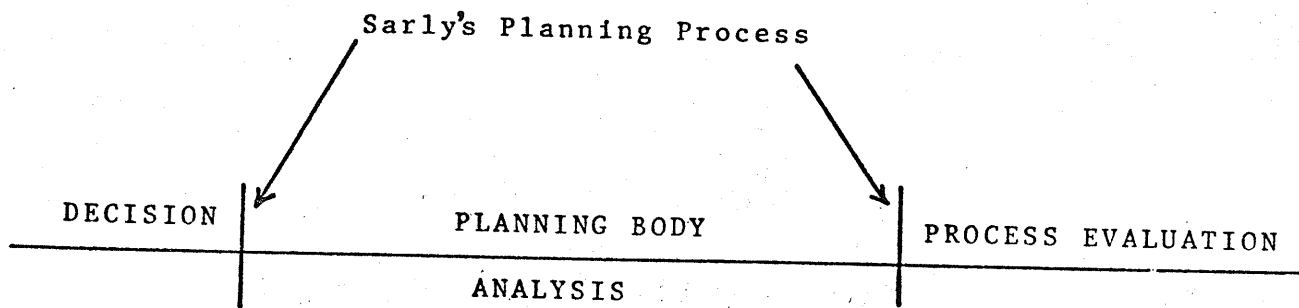


FIGURE 8 Model of the Planning Process

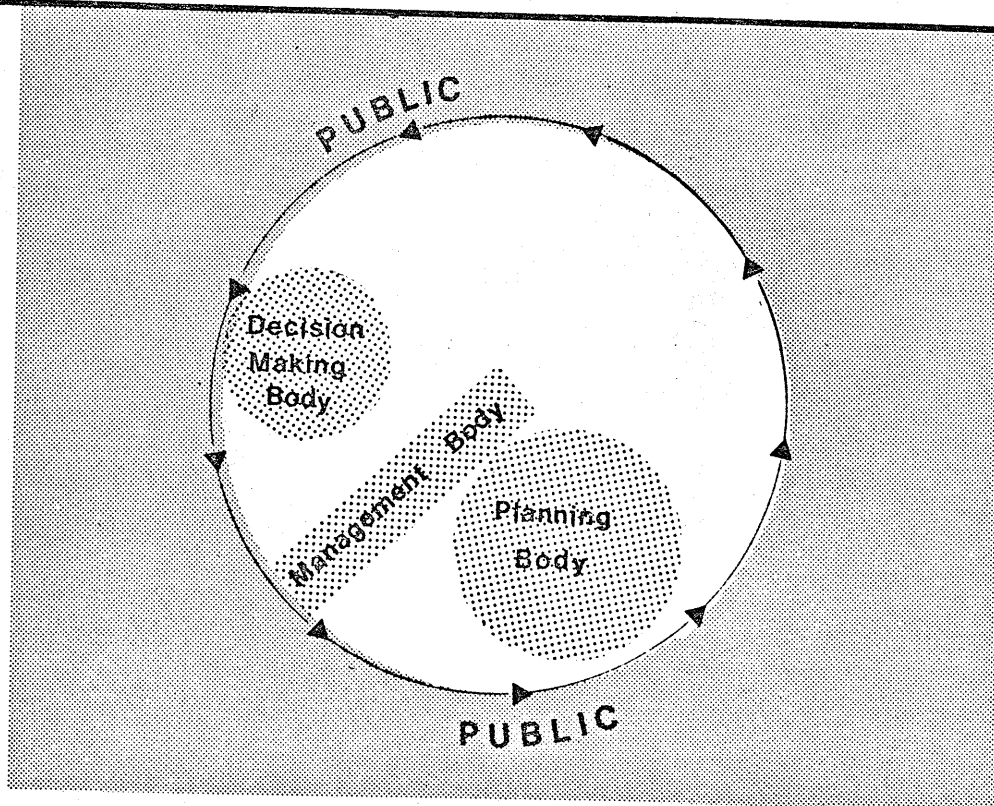


FIGURE 9 Model of Decision Making

### 3.3 CRITIQUE OF SARLY'S MODEL

#### 3.3. 1 General Shortcomings

There are general shortcomings apparent in the Sarly Model which have been identified by the author in other sections of this thesis as being characteristic of the Rationalistic Approach to decision making.

Sarly relates the research he conducted as primarily directed towards ways of overcoming the limitations in current practise by better integrating evaluations in the planning process.<sup>10</sup> He suggested the means to which he sought improvements to these limitations was in the way in which evaluation is related to other tasks and activities within the process. However, he restricts evaluation to within the boundaries of the area of his model he refers to as the 'Planning Body'. The involvement towards improving evaluation techniques were restricted to the stages in the planning process that Sarly determined would be sufficient "such as data collection, the generation of alternatives, and the testing of plans for various kinds of feasibility".<sup>11</sup> Sarly does not indicate who will be involved or how they will be involved, he merely labels the component which is involved----the 'planning body'. There is an apparent weakness in Sarly's model, a confusion of function.

The Sarly Model is a valuable tool, since it allows a structured process whereby aggregate levels of decision-making can be determined, lending itself to critical interpretation of what kinds of decisions are being made, by who, and thus, what implications.

The requirements of the models provided by Sarly are very demanding as can be seen by a review of the forty-four activity stagings in the Normative Model and one hundred and seventy-one stages in the Descriptive Model. The argument is complimented by the implication of the suggested amount of possible staging combinations in the Generalized Model available in the literature.

As depicted in Figure 9 of this chapter, the Rationalistic Model is commonly identified as consisting of three acting bodies with their associated areas of involvement and influence. Although various stages or steps in the planning process cross over into these three areas, (as shown in Figure 7) the components 'decision-making' and 'management' are not involved in planning other than for (1) initial conception of the planning function (2) implementation of the decision to plan and (3) at the termination of plan evaluation (referred to by

Sarly as the decision-making stage). Sarly fails to achieve a marriage between evaluation and decision-making, although he does present a framework of activity groupings in the planning process which clarifies the nature of evaluation. Sarly was not concerned with this marriage relationship, yet it appears this failure intimidates his description of a rational planning process. (This was presented in previous sections). How can the approach "facilitate an understanding of alternative possible solutions to problems and the choice between those alternatives" when the problem recognition and definition stage, and the decision-making stage are fragmented and separate from the planning body which contains the only individuals who understand the implications of alternative possible solutions to problems?

### 3.3. 2 Linear Nature of Sarly Model

The planning process is visualized by Sarly as having 'acting bodies' who are responsible for various activity groupings. The planning process is viewed in the rationalistic planning model as crossing from one of these areas to another in a linear progression. (see Figure 8')

"The planning process may be recognized as a course activity which crosses from the administrative sphere. In the administrative sphere, resources are managed on a day-to-day basis, and problems needing planning are detected. On the decision-making sphere problems are legitimised and planning is authorized and implemented."<sup>12</sup>

Feedback loops are insignificant to the Sarly Model, other than to act as a check for accuracy of past actions. If new, controversial evidence is revealed the primary concern is meeting milestone deadlines. The Rationalistic approach to decision-making determines the activity chart far in advance of adequate knowledge of future planning problems. It is for this reason that it is referred to in the literature cited as deterministic.

### 3.3. 3 Alienation of Evaluation Processes

It was Sarly's intent to provide a paper which "may be possible to reduce the uncertainty associated with making judgments about the merits of going about planning in one way over another.....(or)... ..at the simplest level, the classification of planning activities..as a checklist against which may be measured the activity characteristics of the case studies being considered".<sup>13</sup>

Although Sarly does better incorporate evaluation into planning procedures by clarifying somewhat the nature and purpose of evaluation, his solution cannot be regarded as significant in terms of ultimate results.

The planning process, to be regarded as successful, meaningful, and an improvement over past practises, must be inclusive--(by Sarly's own definition of the term evaluation)---of the planning exercise in totality. For the planning process to accomplish the goal of determining "the implications of the alternatives for the welfare of society as a whole", those individuals whom this 'whole' consists of and who are potentially affected by the decision" should be included. The scope of the planning process must exceed the bounds of the 'planning body' which Sarly and the Rationalistic models restrict it to. The evaluation and interrelationships within the planning process must be inclusive of the whole gamut of planning from inception to implementation, not to exclude any model components from the process. A planner cannot successfully implement plans merely through "formal analysis" throughout the project. Also, the planning process does not entirely consist of, nor does the planners job terminate upon the completion of plan evaluation.

Sarly's conceptualization of the Normative Model of the planning process is criticized because 'analysis' should not be divorced from the decision-makers nor from those individuals who are affected by the decision; the argument holds for most activities in the planning process delineated by Sarly. A major criticism of the Rationalistic model is the separation of evaluation techniques and decision-making functions. (see Figure 3) Sarly depicts the decision-making and management bodies as being isolated from planning activities other than problem recognition and definition, decision to plan and, finally, decision-making.

The only source of power available to the planner to ensure plan implementation is his technical knowledge in dealing with the future, which is a necessity to the administrative and political ~~spheres~~ of influence. Guy Benveniste, in the 'Politics of Expertise',<sup>14</sup> indicates the need to tap this potential power source which has been ignored in the past by practitioners who found it fashionable to attempt comprehensive planning. He supports the criticism of the rationalistic model when he reports that since planning can never be completely comprehensive, how

comprehensive it is becomes a matter of judgment.

"Implementation depends on the agreements that are reached, the way the plan is perceived, and the way it orients individual and collective action..... It is the way experts combine technical arguments with political support that matters. The multiplier effect functions when a minimum coalition of supporters emerges behind a rational argument and when this support is generally perceived to be sufficient to assure implementation. An intentional plan, therefore, is only as comprehensive as the ability of experts to create the multiplier effect. Beyond this, it necessarily fails.....This leads us to the myth of comprehensive planning."<sup>15</sup>

Benveniste tells us that for many years it was fashionable to assume that

"....everything could and should be planned or, at least, that the more comprehensive the plan, the better. This was based on a notion that planning is all benefit and no costs. But there are evident costs to articulation and rationalization, not only the money costs of research and planning, but also non-money costs, such as the impact of the perceptions of those who believe in a plan's reality and the impact of planning on the political process.....Experts have to weigh the costs and possibility of articulation with the benefits. They have to keep in mind the way planning depends on and affects participation in policy-making."<sup>16</sup>

### 3.3. 4 Consequences of Shortcomings

As suggested in earlier paragraphs, the evaluation stage is undertaken by the planning body, but what does the planning body consist of? Is it not obvious that a generalization such as Sarly proposes cannot be made without some explanation regarding values? Will the planning body's value system, so crucial in determining the desirability of alternative actions, be compatible with those of the decision-makers, or similar to those people who they purport to represent? What effective means does Sarly present in the Rationalistic approach to pressure for

plan implementation? After all, it is the decision-makers who have to contend with the political arena. Why not support an approach which capitalizes on this need for concatenation?

Report Designation<sup>17</sup> is the sole semblance of what could be referred to as an attempt to gain legitimacy for the planning process and supportive cast in a rational planning process. Sarly refers to this procedure as one criteria of aggregation, a notion that

"although the planning process consists of a continuous train of activities, these activities manifest themselves to those not directly involved in making the plan only at those points at which the activities are brought together and issued publicly as a Report. The Report serves to make clear the results of the activities leading up to it, and it provides the firm support on which subsequent activity may be based."<sup>18</sup>

Sarly states the case for the weakness of this procedure in the Generalized model, and potential to be capitalized on when he reveals "the issue of activity reports,...(is a procedure that)....leaves a great many specific and not unimportant activities implied and undesignated."<sup>19</sup> This is an advantage to the planner, but is it an advantage to the planning process, and is it to be taken for granted, as Sarly does, that they are compatible with one another?

By virtue of the fact that incorporation of evaluation into the planning process has been relatively negligible in any respect but economic terms, one ponders the relevance of such a regimental format which has divorced for so long the determination of advantages and disadvantages of a plan from those groups of individuals directly or indirectly affected.

This supportive of the criticism of the rationalistic assumption that values and facts, means and ends, can be clearly distinguished. Perhaps this gives some insight pertaining to the absence in most rationalistic models examined by Sarly of valid criteria to distinguish between an improvement from a deterioration in a planned environment.

The Rationalistic model discounts politics. The author presents a model, in which evaluation relates to other tasks and activities within

the planning approach which would come about as a result of an efficiently involved politic/public. It is a planning process which is able to change study direction as new evidence is presented, if warranted, and which subsists on commitments from the elected representatives. This would naturally involve co-operation and co-ordination between and within all interest groups bringing into the planning process frequently the decision-makers and management. With an efficiently involved public, in ways which will be suggested, cognitive strain could be kept to a standard level of complication, for without this standard level of complication, the public and many other actors could not be involved efficiently.

The areas this process would be an apparent advantage in would be those areas identified by Sarly as being areas in which improvements were sought in relating evaluation to other activities in the planning process. Areas such as data collection, the generation of alternatives and the testing of plans for various kinds of feasibility, would be focal points of significant improvement. This would reduce to a minimum reflection of the values of the decision-makers on the decision and require that they explain their actions and answer to the electorate for their results. Since objectives may be re-defined, cognitive strain would be reduced on the part of the decision-makers. Decision-makers would not be confronted with the past embarrassment of changing their opinions. Because of the envisioned re-definition of objectives, the change would be expected, or understood by the electorate. With a highly involved politic credibility would be a constant attribute of the process as well as the resultant plan. This would be true not only within the "planning body" as in Sarly's model, but throughout the project lifetime. This would result in an advantage to the Administrative component, and the reduction of frustrations presently experienced by planners, technicians and public since the public would regard the integrity of government decisions as directed towards the benefit of the public for something other than pre-election campaigning, through concensus rather than confrontation. The government component of the model would gain credibility, as would the Administrative component.

This circle of involvement would result in client benefit, rather than being geared more towards the benefit of the Administration. It is more tuned to accommodate the dynamics of societal needs. The

Administration appears to be the component of the model which derived the most benefit in past experiences of airport planning.

### 3.4. COMPARISON OF WAASS AND SARLY MODELS

#### 3.4. 1 Why the Comparison

In previous sections it was noted that the WAASS team did not develop a model from which to work. This does not, however, it was also mentioned, imply that they did not operate under the principles of a recognized approach. The author has attempted, in this section, to provide an analysis of the WAASS to ascertain the model which was followed. In this way, the WAASS was used as a case study to determine the validity of the criticisms of the Rationalistic approaches to decision-making. The methodology followed by WAASS is one which is used often in airport planning in Canada.

#### 3.4. 2 Discussion of WAASS Model

The planning process has been reviewed by Sarly and Lichfield with the intent to establish inter-relationships between evaluation and other activities in the planning process. A major underlying theme of most of the literature examined is the view that the various plan evaluation processes are each appropriate to particular problems. Every model contributes in its own way in the planning process depending upon the purpose it is put to.

The models of the planning process provided by Sarly and Lichfield give some idea where the W. A. A. S. S. Model fits as compared with other models of how the planning process is, or should be, carried out.

The W. A. A. S. S. Model of the planning process is similar to the rationalistic model developed by Emery (1969). (see TABLE 1 on following page.) This particular model of the planning process is characterized by grouping the planning activities in the following sequence:

2. Data Collection
5. Design
6. Evaluation
7. Decision-Making
8. Implementation
9. Review

The numbers signify how the W. A. A. S. S. Model compares to the Normative Model of the Planning Process as distinguished by Sarly and Lichfield.\*

\* See TABLE 1 following page.

# MODELS OF THE PLANNING PROCESS TAKEN FROM THE LITERATURE

R.Sarly

DATE OF PUBLI- CATION	AUTHOR(S) OF MODELS	Problem Recognition	Data Collection	Description	Goals Determination	Design	Evaluation	Decision- Making	Implementation	Review
197										
1965	Altshuler					+		+	+	
1969	Batty(1)	+		+	+	+	+	+	+	
1969	Batty(2)	+		+	+	+	+			
1968	Batty(3)	+	+	+			+	+		+
1967	Blumstein and Larson	+		+	+	+		+	+	
1969	Bolan(1)	+			+		+	+		
1969	Bolan(2)				+		+	+		
1968	Bor		+	+	+	+	+	+		
1970	Boyce	+		+	+	+	+	+	+	
1966	Branch				+	+	+		+	
1968	Branch and Robinson	+	+	+	+	+	+	+	+	+
1968	Catanese and Steiss	+		+		+	+	+		
1963	Dakin	+	+	+	+		+	+		+
*1969	Emery		+			+	+	+	+	+
1968	Hansen		+	+	+	+	+	+		
1967	Harris(1)		+	+	+	+	+	+	+	
1965	Harris(2)	+				+	+	+		
1969	Heap	+							+	
1969	Heinrichs and Taylor	+		+	+	+	+	+		
1970	Hodge and Johnson	+	+	+		+		+		+
1970	Holden and McIlroy	+			+	+		+		
1970	Kozlowski	+				+	+	+	+	
1966-7	Levin					+	+			
1968	Lichfield			+	+	+		+	+	+
1965	Lowry					+	+	+		
1967	McLoughlin	+			+	+		+	+	+
1955	Myerson and Banfield	+			+	+		+		
1965	Ontario Community	+	+	+	+	+	+	+	+	
1965	Sargeant	+	+	+		+		+		+
1968	Schultze				+		+	+	+	
*1975	W.A.A.S.S.		+			+	+	+	+	+
1966	Waterston					+				+
1968-9	Webber			+	+		+	+		+
1969	Wilson			+		+		+		

TABLE 3

\* similar

It has been stated earlier that a major criticism of the Normative Model is that the model requires greater resources than the decision-makers are capable of providing. The W. A. A. S. S. Model, in recognition of "an undertaking of this magnitude", tries to overcome such requirements, which they admit are "beyond the resource capabilities" of their expertise, by the use of a project management approach. The single-purpose nature of the study called for optimization of "the cost-effectiveness of these capital resource expenditures".<sup>21</sup> (The use of airport specialists in the capacity of managers was discussed in previous chapters.)

The W. A. A. S. S. Model is subject to the same criticism as the Normative Rationalistic Model in that it disregards the fact that the requirements of the rationalistic model are greater than decision-makers can accommodate. They leave the determination of advantages and disadvantages of various alternatives, and the uncertainty involved, to the discretion of the various consultants. This leads to serious difficulties later in the evaluation and system selection stages.

Incorporation of the results from the various studies undertaken by the consultants into the grand design are lacking. The Cost-Benefit evaluation concept was also undertaken by consultants again with the incorporation of such developments being left until the final evaluation stage of the Major Airport Master Plan Study. This resulted in more actors in the decision-making circles accompanied by a greater selection of values and facts, means and ends. Without a problem recognition stage in the W. A. A. S. S. Model it is hard to imagine the difficulties encountered by consultants when guidelines to tender were provided.

### 3.5. SUMMARY AND CONCLUSIONS

According to our case study, the criticism of the Rationalistic model that focuses on the disparity between the requirements of the model and the capacities of decision-makers is valid. The much more efficient approach would have developed on the theme of keeping cognitive strain to a standard minimum level of complication where political and airport specialists alike could have been able to relate to the demands of the planning process. Consultants were the means employed by the WAASS Model of coming to grips with the problems of cognitive strain when attempting a comprehensive approach. This would not have been necessary in areas such as Community Acceptance Concept Evaluation, General Acceptance Alternative Evaluation and Final Major Airports Alternatives Selection stages if the themes developed in the proposed model\* were incorporated into the WAASS Model. Instead consultants handled these crucial areas in the planning exercise in a complicated manner which was very confusing to all and not conducive to political (or perhaps even airport specialist.)

With a high degree of sophistication prevailing throughout the study, it is no wonder co-operation and co-ordination between and within all interest groups was not a prevalent feature. With so many consultants being included in the various stages of the planning process the initial project design was the only means of directing and integrating the studies. It was virtually impossible to change study direction as new evidence was revealed, if it was desirable. It was necessary to maintain the initial model conceptualization since the process was not the product of a model which was able to change study direction as new evidence swayed the decision-makers.

The STUDY DESIGN/PROJECT WORK PLAN indicates the consultants evaluate alternatives.

The criticism of the Normative Model of not being able to clearly distinguish a "specific agreed upon set of values that could provide the criteria for evaluating alternative"<sup>22</sup> is valid for the W. A. A. S. S. Model. Dealing in a sensible manner with uncertainty is a more viable means to responsible decisions. The way one gathers information is an aid in reducing uncertainty and clarifying consequences

\*Chapter VI of This Thesis

of deliberate action. A. P. C. C. could have been used by WASS in these areas but was not.

The decision-making requirements were temporarily overcome by distributing the evaluation tasks amongst consultants. The Normative Model, it was suggested earlier, is confined to situations where the choice a decision-maker encounters is characterized by distinguishable goals and expected consequences. These well-structured problems are readily accessible to quantification. The W. A. A. S. S. Model is characterized by a lack of well-structured problems with highly ambivalent goals and consequences. The predictable difficulty was encountered by the W. A. A. S. S. upon completion of Data Base Support Studies. This was one reason for setting up a Tentative Model and the need for a second edition of the Study Design/Project Work Plan.

The characteristics of the Normative Rational Model are outlined below. Rationalistic models vary considerably concerning how decisions are made and how they should be made. The model developed by Sarly is compared to the rationalistic models of the planning process.

Both require greater resources than the decision-makers are capable of providing.

Both must exercise a high degree of control over the decision-making situation on the part of the decision-maker. (Centralized control)

Both must necessarily be able to provide distinguishable goals and expected consequences. The models are 'process-oriented' and have as an underlying assumption that values and facts, means and ends can be clearly distinguished.

These criticisms suggest a need for the development of a more refined model. The criticisms of the Rationalistic Model described above will function as guidelines in the construction of a new model in future chapters.

## CHAPTER III FOOTNOTES

1. R. Sarly see Abstract in The Planning Process University College London, Flaxman House, 16 Flaxman Terrace, London, March, 1972.
2. R. Sarly, Ibid, Abstract
3. R. Sarly, Ibid, p.1
4. R. Sarly, Ibid, p.2
5. R. Sarly, Ibid, p.18
6. R. Sarly, Ibid, p.2
7. R. Sarly, Ibid, p.6
8. R. Sarly, Ibid, see Forward
9. R. Sarly, Ibid, p.32
10. R. Sarly, Ibid, see Introduction
11. R. Sarly, Ibid, see Forward
12. R. Sarly, Ibid, p.22
13. R. Sarly, Ibid, p.32
14. G. Benveniste, "The Politics of Expertise", the Glendessary Press Berkeley, California, U. S. A., 1972
15. G. Benveniste, Ibid, p.115
16. G. Benveniste, Ibid, p.116
17. R. Sarly, op. cit., p.12
18. R. Sarly, op. cit., p.12
19. R. Sarly, op. cit., p.13
20. R. Sarly, op. cit., p.11
21. W. A. A. S. S., Study Design/Project Work Plan, Ministry of Transport, March, 1975, p.2. 01
22. A. Etzioni, "Mixed Scanning": A Third Approach to Decision Making, Public Administration Review, December, 1968, p.386

*CHAPTER IV*

*APPROACHES TO DECISION MAKING*

#### 4.1 INTRODUCTION

The next logical step in the development of this thesis is the examination of various approaches to decision-making. In this way, the advantages and disadvantages of selecting one approach as opposed to another will be established. It is important in the development of the thesis to comprehend exactly what can be expected of the various approaches.

The proposed model must operate within the bounds of an approach to decision-making, the foundation for which has been established explicitly.

In reviewing the literature on the topic of decision-making basic types of decision-making approaches emerge which are particularly pertinent to the development of a new model for airport planning.

Four general approaches to decision-making are:

- 1) The Rationalistic Approach
- 2) The Incrementalist Approach
- 3) The Mixed-Scanning Approach
- 4) The General Learning Approach

It was pointed out in Chapter III of this thesis that Robert Sarly's research was somewhat frustrating since he found it quite difficult to distinguish concrete traits of many of the various models in order to compare them. Specialist jargon used by the different authors lacked generally accepted definitions. Nevertheless, Sarly did valuable research for the purposes of this thesis since he classified many models of the planning process from the literature. This allowed the author a means of establishing the W. A. A. S. S. Model fit with a reasonable amount of accuracy. Incongruities apparent in various approaches to evaluation of alternatives were shown in Figure 2 of Chapter 3.

## 4.2. THE APPROACHES TO DECISION-MAKING

### 4.2.1. The Rationalistic Approach

The Rationalistic Model involves a "high degree of control over the decision-making situation on the part of the decision-maker".<sup>1</sup> The end result of the meticulous compilation of vast amounts of information is an extension of the values of the decision-makers. The planner or planners posit (s) goals, weigh alternative means, and choose according to his (or their) preferences.

The ideal way to determine policy is to choose among alternatives after careful examination and complete, exhaustive study of every possible course of action. This conviction is incorporated after all possible consequences have been examined and these consequences delineated in light of utilitarianism.\* There are several major pitfalls to this ideal in the real world situation.

The Rationalistic strategy transfers the ideal of science to the field of values. This strategy misuses the planning function for determining public policy since the values of the decision-maker(s), not those of the client, are reflected in the choice of alternatives. The rationalistic approach separates the techniques for evaluation of proposed alternatives from the decision-making functions with the underlying assumption that values and facts, means and ends can be clearly distinguished. This may be more applicable in situations dealing with static problems, however, not so when dealing with the highly fluid problems of societal significance.

This approach to decision-making finds its ultimate principles are abundant and can supply the sequence of intermediate principles that might come up. The approach is criticised for its poor adaptation to the limited problem-solving capacities of man which is referred as resulting in cognitive strain to the decision-maker, and ultimate frustration.

Cognitive strain is encountered by the decision-makers who do not have the resources to collect the information required for rational choice. The rationalistic approach to decision-making is not adapted to inadequate information and is also a most frustrating encounterment for sincere planners in its inability to cope with cybernetics.

\* Greatest amount of good for the largest amount of people

While insisting upon comprehensiveness of analysis, the approach does not incorporate simplifying strategies which would adapt to the costliness of analysis. There should be some accountability pertaining to the worthiness of means to achieving ends by identifying the value of the problem solution.

A major short-coming in the evaluation stage is that the choice is one reflecting the values of the decision-maker. Also, this approach distinctly separates evaluative techniques and decision-making functions. The approach is dismissed out of hand by some because of the diversity between requirements of the model and capacity of the decision-maker, suggesting the approach is better adapted to a static problem. Public policy problems are highly fluid and problems of reconciliation of interests are not adequately dealt with.

A distinct separation between analysis and evaluation of alternatives and a general lacking of significant feedback loops are characteristic of this approach. Such characteristics are essential in determining the validity and desirability of the end result - the plan.

#### 4.2. 2. Disjointed Incrementalist Approach

The Incrementalist approach to social decision-making, often referred to as the strategy of 'Disjointed Incrementalism'<sup>2</sup> represents the other extreme, so to speak. This approach, which is considerably less demanding than the Rationalistic approach, assumes a significantly lesser amount of comprehension regarding the environment. The strategy is exactly as the title suggests; a low degree of co-ordination and co-operation between and within agencies, being for the most part disjointed, with most decisions being made in small increments.

This approach has been described as being the way most policy-makers actually make decisions. K. Boulding describes the philosophy of the approach as substituting "a combination of little steps guided by rather casual censuses."<sup>3</sup> One might add, that this casual census is more likely to entail a great deal of repetition and a low level of co-operation and co-ordination.

The strategy of disjointed-incrementalism is an approach to social decision-making which restricts the decision-maker to policies that offer only incremental changes. The analyst is encouraged by the approach to move away from situations which appear undesirable rather than move in the direction which accommodates goals which are an

improvement in existing conditions. The decision-maker finds himself reviewing policies which suppress ills because virtue is very difficult to define and even harder to finalize as a goal.

The conceptualization of this strategy is perpetuated in the minds of the decision-maker by the fact that analysis and evaluation are socially fragmented since the determination of the problem solution is often conducted in a large number of centres in society.

A. Etzioni advances the advantages of the incrementalist argument when he indicates the strategy "seeks to adapt decision-making strategies to the limited cognitive capacities of decision-makers and to reduce the scope and cost of information collection and computation".<sup>4</sup>

Lindbloom and Braybrooke suggest there is more than meets the eye to this 'muddling through' approach when they relate the strategy also posits a structural model. They present it as the typical decision-making process of pluralistic societies. They argue this is the most effective approach for a Democratic society to relate to its members which provides for the whole gamut of social cognizance.

The Rationalistic approach to decision-making, it has been suggested, requires greater resources than the decision-maker has at his disposal. It was also pointed out that the rationalistic approach has underlying assumptions which are not at all effective in policy situations that involve the public sector in broad social questions, since many social decision-making centres do not have a universal set of norms which could be used in evaluating alternatives.

The strategy of Disjointed-Incrementalism in comparison, however, operates with much less control over the environment. The strategy of D.-I. is an approach to decision-making which restricts the decision-maker to policy alternatives limited in number and incremental in change. Similarly, a restricted number of consequences are evaluated which the decision-maker regards as 'important'. A continual redefinition of problems to accommodate the constant readjustment of end-means and means-ends makes the problem more manageable. The decision-maker finds himself reviewing policy which suppresses ills rather than seeking virtue (since virtue is so difficult to define as an ultimate goal). This mutual adjustment of means and ends is a feature which is important enough to be regarded by most practitioners as a separate feature of the strategy.

A necessary aspect of the strategy is that analysis and evaluation are socially fragmented. For the problem solution resolution one finds analysis being conducted in many centres at many different points in society. There is no 'best' solution but a constant series of confrontation of issues through serial analysis and evaluation. A. Etzioni describes the incremental decision-making as:

"remedial, geared more to the alleviation of present concrete social imperfections than to the promotion of future social goals"<sup>5</sup>.

Another very blunt statement by Etzioni adequately deals a broadside to the strategy:

"Decisions by consent among partisans without a society-wide regulatory centre and guiding institution should not be viewed as the preferred approach to decision-making. In the first place, decisions so reached would, of necessity, reflect the interests of the most powerful since partisans invariably differ in their respective power positions; demands of the underprivileged and politically unorganized would be underrepresented. Secondly, incrementalism would tend to neglect basic societal innovations, as it focuses on the short run and seeks no more than limited variations from past policies...there is nothing in this approach to guide accumulation; the steps may be circular-leading back to where they started...or dispersed...leading nowhere."<sup>6</sup>

#### 4.2. 3. Mixed - Scanning

Mixed-Scanning provides a combination of both approaches to decision-making. It combines detailed information on sectors for data gathering, deemed to be fundamental or major areas of concern, with a "truncated" review of other sectors. A necessary requirement is the differentiation of fundamental decisions from incremental ones. Scanning is flexible in that it allows for as many levels of coverage as available resources will allow, so long as an all-encompassing level and a highly detailed level are explored.

The Rationalistic approach to decision-making requires greater resources than decision-makers command. The incremental strategy, which takes into account the limited capacity of actors, fosters decisions which neglect basic societal innovations. Mixed-scanning reduces the unrealistic aspects of rationalism by limiting the details required in fundamental decisions and helps to overcome the conservative slant of incrementalism by exploring longer-run alternatives. (Although incremental decisions tend to imply fundamental ones anyway.) The mixed-scanning model makes this dualism explicit by combining (A) high-order fundamental policy-making processes which set basic directions and (B) incremental ones which prepare for fundamental decisions and work them out after they have been reached. Mixed-scanning has two further advantages over incrementalism: it provides a strategy for evaluation and it does not include hidden structural assumptions. The flexibility of the different scanning levels makes mixed-scanning a useful strategy for decision-making in environments of varying stability and by actors with varying control and consensus-building capacities.

The different approaches to decision-making have their advantages depending on the situation one wishes to use them for. Different kinds of problems require different approaches. Ruth Mack suggests some guidelines for fitting the approach to the problem. Her guidelines are:

"The first two concern the ability of the decision collective to function efficiently-homogeneity and rational capacity. The third and fourth concern the informational basis for predicting objective outcomes (attribute 3) and their expected utility (attribute 4). the fifth, seriability, says whether average or particular results are of primary concern.

When a given situation is rated along the continuum which each attribute represents, an attributes profile appears which suggests a sensible "aspiration level" for deciding.

If the profile clings to the well-structured side-the left side of the continuum for each attribute-decisions can be made with the elegance and precision of statistical theory."

If the attribute profile shifts to the right, a less comprehensive and relevance quantification is likely to result. What to expect and how to proceed obviously depends very much on the nature of the decision problem.

The only way to accommodate successfully Etzioni's Mixed-Scanning Model is to ensure the system navigators are responsible to an "active society", as he has aptly described.<sup>8</sup>

Many theorists discount Etzioni's approach under the assumption that we will never reach this idealistic state, especially since there is no indication that the movement is concomitant. What is needed, and hopefully to come, is a model which adopts the more active approach to societal decision-making Etzioni sees necessary to solve the multitude of problems it faces, expediently. As Mack puts it, "the potential of constraining the cost of uncertainty by reducing the possibility shortfall is emphasized when decision proper is placed in a process open to cognitive and motivational variables."<sup>9</sup>

Analysis and evaluation must not be socially fragmented in the planning process. It must include decision-makers in evaluation of alternatives so they totally comprehend the significance of the implications of their actions or decisions and are constantly in touch with issues of significance to the interests they represent. Commitments from the elected representatives are a means of providing support and credibility to the Master Plan proposals when they reach the political arena.

Another feature of the model of the planning process that will provide this support and act as a check on the accountability of political obligations is a well-informed and involved public. This has been referred to as an efficiently involved public in other sections of this thesis. Efficiency is achieved in terms of cost, system performance, and results which are sanctioned by the client. Keeping information to a standard level of complication reduces the scope and cost of information collection and computation. This can only be accommodated through the maintenance of a high level of involvement. The involvement is sustained by a constant movement through the planning system of unfiltered information. This is the result of co-operation and co-ordination between and within all interest groups.

The process must be willing to acknowledge all participants, where tokenism and a deterministic mentality are outdated. The process must be able to change study direction as new evidence is presented or

learned. The guidance system is introduced in the Proposed Model as being a Resource Centre which is important in the promotion of future social goals.

#### 4.2. 4 The General Learning Approach

The General Learning (G.L.) process is an approach to decision-making which provides decision-makers with a fourth alternative. The fourth approach to decision-making is comparable to Ruth Mack's DOSRAP\*. The General Learning process can be conceived of as dynamic and open ended. The process cannot predict the consequences of various studies or components eventually chosen. Because of the illusive nature of prediction, learning must be used to compensate. It is the feature of the approach to work towards identifying at any time a more desirable course of investigation.

The advantage of using a G.L. process as opposed to another approach to decision-making is associated with how decision-makers deal with uncertainty. The development of the planning model is commonly founded on the research conducted during the problem recognition stage of the planning process. Such criteria establishes the advantages and restrictions of accepting one approach as opposed to another. The applicability of different models must be distinguished according to the approach best suited to the system within which the planners must work. The choice of the appropriate approach and thereby the model, will be reflected in the solution.

The G.L. process is more capable of addressing the criticisms of the aforementioned approaches to decision-making. It will not only aid the actors in distinguishing relevant alternatives, but will allow for the re-evaluation and re-definition of objectives throughout the process. The values of all actors will be reflected through the use of a proposed model which accommodates these actors in a delicate balance of power. There will be a reduction in cognitive strain to decision-makers because commitments are concomitant from the political arena. Cognitive strain will be reduced since fundamental decisions are constantly being discussed and evaluated by all actors.

\* DOSRAP---deliberative, ongoing, staged, recursive, administrative process. From R. Mack *Planning on Uncertainty*, Wiley-Interscience, Toronto, 1971, p.23

#### 4.3. GENERAL LEARNING MODEL CRITIQUE

Many elements in the planning process, especially the intangibles such as people and forces, cannot be predicted in terms of their significance to the model in the initial stages of the planning process. Since the rational model of the planning process was adhered to by the WAASS, and the importance of people and forces aspects of planning could not be anticipated, they, therefore, were not included as integral components. The rationalistic approach to decision-making does not allow for change in study components or direction. Dealing with new evidence brought to the attention of the planners from the various studies, was restricted to the airport information stages of the planning process because the places of integration of this new evidence could be pre-determined.

Therefore, the definition of the bounds of the planning model is very important to the significance allocated to various components of the model. It is for this reason, in a project of far reaching consequences such as the planning of an international airport, the author supports a process which is able to change study direction as new evidence is presented, if warranted.

The WAASS's adherence to a process that closed its doors to the "people and forces"<sup>10</sup> elements of the planning process is a practise which is quite well adapted to the pricing mechanisms of current economic doctrines. Branch & Robinson's<sup>11</sup> criticisms are abundant concerning the inadequate functioning of pricing mechanisms when dealing with the intangibles of livability criteria. Expected utility is very hard to anticipate, and values and knowledge of reality, Ruth Mack tells us, "shift as a result of the learning embodied within and among decision situations; perception is selective and aspirations developmental".<sup>12</sup>

The learning model would be able to change direction expediently as a result of a deeper understanding of the problem. If the original purposes of the study were allowed to undergo intentional clarification and re-development, sketchy areas of concern could result in further research. If contradictory new evidence was produced, as a part of the learning process the purposes could change direction. The criteria for the 'universal set' could be re-evaluated and manipulated to include a different set of alternatives. For example, if the community

strongly voiced dissidence concerning the tolerance level of noise, this would provide the impetus for change in direction to head in the direction of desired results. As the WAASS model stand presently the specialists manage the results of predetermined study components without adequate knowledge of the significance accruing to various components, other than that which was established in the first few weeks of the study.

The learning process could, therefore, concentrate on the process whereby decision is achieved rather than managing results. A good decision process generates good decision.

Ruth Mack suggests:

"promoting 'planning as an experimental design' is a central point in coping with costs of uncertainty-costs due both to possibility shortfall and to knowledge gap. How this has been done must be gleaned, at the present state of the literature, from the few relevant descriptions of management structure in research and development, where learning is obviously of the essence."<sup>13</sup>

The W. A. A. S. S. selected an approach where the determinism of relevant data was subject to rationalization before inclusion. Once this criteria was established, a linear process of a regimental, deterministic nature was projected into milestone events where the various components recognized would produce the process-oriented solution. The rational approach adopted by the WAASS analyzes the decision they are searching for the solution to, without any consideration of the preceding or following circumstances surrounding the research question. The significance of various components were not open to alteration as new facts were realized.

Efficiency will also be improved in a process which deals with uncertainty in a more receptive and dynamic manner. This process will constantly move in the direction of improvements in existing conditions rather than past approaches which move away from undesirable situations. This process will ensure analysis and evaluation are not socially fragmented. With such characteristics, efficiency will be achieved.

In the G.L. process, the decision-makers define objectives in the initial stages of the process much as they do in the approaches described in previous sections. The G.L. process, however, continuously

throughout the planning exercise takes the opportunity to re-evaluate and re-define initial objectives if necessary. The re-definition and re-evaluation is facilitated through the incorporation of the proposed Learning Model. The Model is a description of the decision-making components in the planning system. The actors will ascertain the desirability of the objectives and study direction in an effort to maintain an optimal level of pertinence, at a standard level of complication, as more knowledge becomes available. This re-working may be undertaken as frequently as the actors deem necessary.

A good example of the need for such an approach was presented in Chapter II of this thesis in the section which dealt with the airport studies. The example cited concerned the question of inconsistent findings from the Community Concerns Study. In the G.L. approach to decision-making, if certain information is inconsistent or opens new avenues of concern, then the process is able to re-evaluate study direction.

This may appear to be a feature of the Incrementalist strategy, yet fundamental decisions could be made throughout the process; certainly the incremental decisions lead to fundamental ones.

ATTRIBUTES	APPROACHES TO DECISION-MAKING			
	RATIONALISTIC	INCREMENTALIST	MIXED SCANNING	GENERAL LEARNING
VALUES	Reflect those of decision-makers	Random as occasion permits	Decision-makers and societal	More of client than of decision-makers
NATURE OF DATA	Comprehensive	Sporadic	As situation warrants	Relevant as defined by client and professionals
COGNITIVE STRAIN	Considerable	Little	As situation warrants (always less than Rational approach)	Moderate
PROCESS FRAME- WORK	Strict adherence to idealistic assumptions	Loose	Moderate	Changes according to study direction
ANALYSIS OF ALTERNATIVES	Separate from decision-makers	Insignificant	Evaluation separate from decision-makers	Made in relation to evaluation criteria

TABLE 4

CHARACTERISTICS OF THE FOUR APPROACHES TO DECISION MAKING

#### 4.4. SUMMARY AND CONCLUSION

The G.L. approach plays a very important role in the development of the new model for airport planning. It is for this reason the author wishes to re-iterate the significance of this factor and emphasize its importance.

There are four lines of thought which are steering the Ministry of Transport in the direction of change. The rationalistic model of the planning process is being re-evaluated in search of a contemporary approach which more realistically deals with the dynamics of planning. It appears that new directions are being sought responding to the following characteristics:

(1) A public participation program which includes the public as an effective component of the planning model as they themselves see fit, is one line of thought.

This is described in very general terms by W. L. Garrison in "Urban Transportation Model in 1975",<sup>14</sup> as planning 'With' not 'For' the public or client. This is accomplished by adhering to a model which operates in

(2) A more flexible framework which is not so dependent on technical rational.

(3) The more flexible framework allows for changes in the deliberative process as described in the 'Learning Model' by R. Mack.<sup>15</sup> These changes become prominent since the framework incorporates components of the entire planning process such as the politic. Evaluation techniques are inclusive rather than exclusive of the planning body. The decision-makers' position of sharing of the evaluation tasks results in a

(4) Reduction in cognitive strain to decision-makers because commitments are concomitant from the politic.

These characteristics indicate the approach which best accommodates the new direction sought by the Ministry is the General Learning Approach.

Only by developing the new model within the framework of an approach with the above characteristics can one recognize overt improvements over past practises in airport planning.

A new model will be presented which will be based on the General Learning Approach. It will be inclusive of all the characteristics mentioned above, which are supported by emperical evidence found in the literature cited throughout the chapter.

CHAPTER IV      FOOTNOTES

1. A. Etzioni, Mixed Scanning: A Third Approach to Decision-Making, Public Administration Review, December, 1967. p.385
2. D. Braybrooke and C. Lindblom, A Strategy of Decision, New York, Free Press, 1963.
3. K. Boulding, "A Strategy of Decision", American Sociological Review, Vol. 29, 1964, p. 931
4. A. Etzioni, op. cit. p.386
5. A. Etzioni, op. cit. p.387
6. A. Etzioni, op. cit. p.386
7. Ruth Mack, Planning On Uncertainty, New York Wiley-Interscience, Toronto, 1972, p.121
8. A. Etzioni, The Active Society New York, Free Press, 1968.
9. R. Mack, op. cit., p.124
10. R. Mack, op. cit., p.68
11. Branch & Robinson; (1968)
12. R. Mack op. cit., p.165
13. R. Mack, op. cit., p.189
14. W. L. Garrison, "Urban Transportaion Models in 1975", Taming Megalopolis, Vol. 1, Anchor Books, Doubleday & Co., New York, 1968.
15. R. Mack, op. cit.,

*CHAPTER V -*

*NEW MODEL PROPOSAL*

### 5.1 INTRODUCTION

The Rationalistic approach to decision-making was depicted in the preceding Chapter (Figure 2). A characteristic of that approach was that the planning body had no input into the stage of the planning process referred to by Sarly as Plan Evaluation. The Evaluation stage was noted as being the responsibility of the decision-making body. R. Sarly was unsuccessful in achieving a marriage between evaluation and analysis.

The W.A.A.S.S. Model case study was compared to R. Sarly's Descriptive Model of a rational planning process. The W.A.A.S.S. team employed a linear, deterministic methodology where the evaluation stage was designated as the responsibility of an acting body known as the Study Review Committee.

The two approaches were found to bear a strong resemblance to each other, since both 'acting bodies' which carried out the evaluation activities were sufficiently removed from the planning analysis. The author suggested these 'acting bodies' should be initially an intrinsic component.

The purpose of this chapter is to present a model for airport planning which will improve upon the W.A.A.S.S. Model described in previous chapters. This will be accomplished through the introduction of significant structural changes, and the introduction of new elements. The model description suggests many lines of communication with interests not usually represented in airport planning models.

## 5.2 RATIONALE OF THE PROPOSED MODEL

The literature on the planning process is lengthy, with many varied and sometimes incompatible theories. Often authors relate a process of how planning should, or does, occur, but do not refer to a specific framework or normative model from which one may compare.

The model, described in the following pages, was developed after careful examination and comparison of the W.A.A.S.S. Model with the Normative Model developed by R. Sarly.

It is anticipated the proposed model will provide improved evaluation techniques and, therefore, planning effectiveness, through the designation of input-output channels and role expectation for various planning activities. Surely, by clarifying the nature and purpose of planning objectives in consultation with the client, evaluation techniques will be improved upon and plan credibility more pronounced.

Since the intent of developing the model was to better integrate evaluation techniques with other activities in the planning process, it is perhaps pertinent to define what is meant by the term evaluation. The term evaluation is meant to refer to the formal analysis of plans or studies as they are likely to affect the well-being of individuals as a result of a decision.

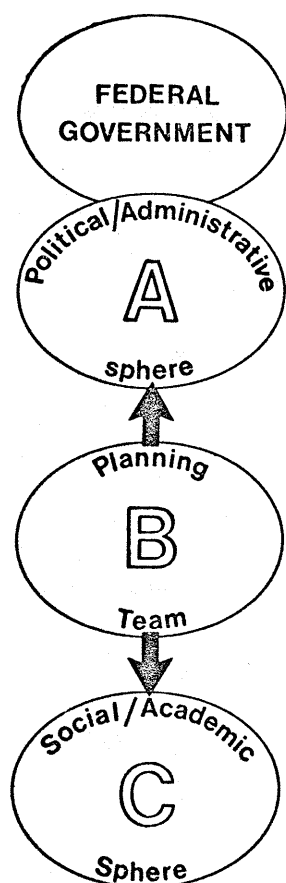
### 5.3 THE CONCEPT OF THE PROPOSED MODEL

Areas where major shortcomings occurred in the W.A.A.S.S. Model were identified in the previous chapters as being:

- (a) co-operation and co-ordination,
- (b) citizen collaboration,
- (c) methodology,
- (d) decision-making.

These shortcomings will be improved upon by the introduction of:

i) a General Learning Approach to decision-making; ii) a model which adheres to a top-to-bottom, bottom-to-top information and feedback flow and receives input from all interest groups; iii) an intensive co-operation and co-ordination decision-making process with built-in checks to ensure the previously described principles are adhered to; iv) the introduction of the decision-makers into the planning process; v) a citizen participation program which offers a position of some significance to interest groups.

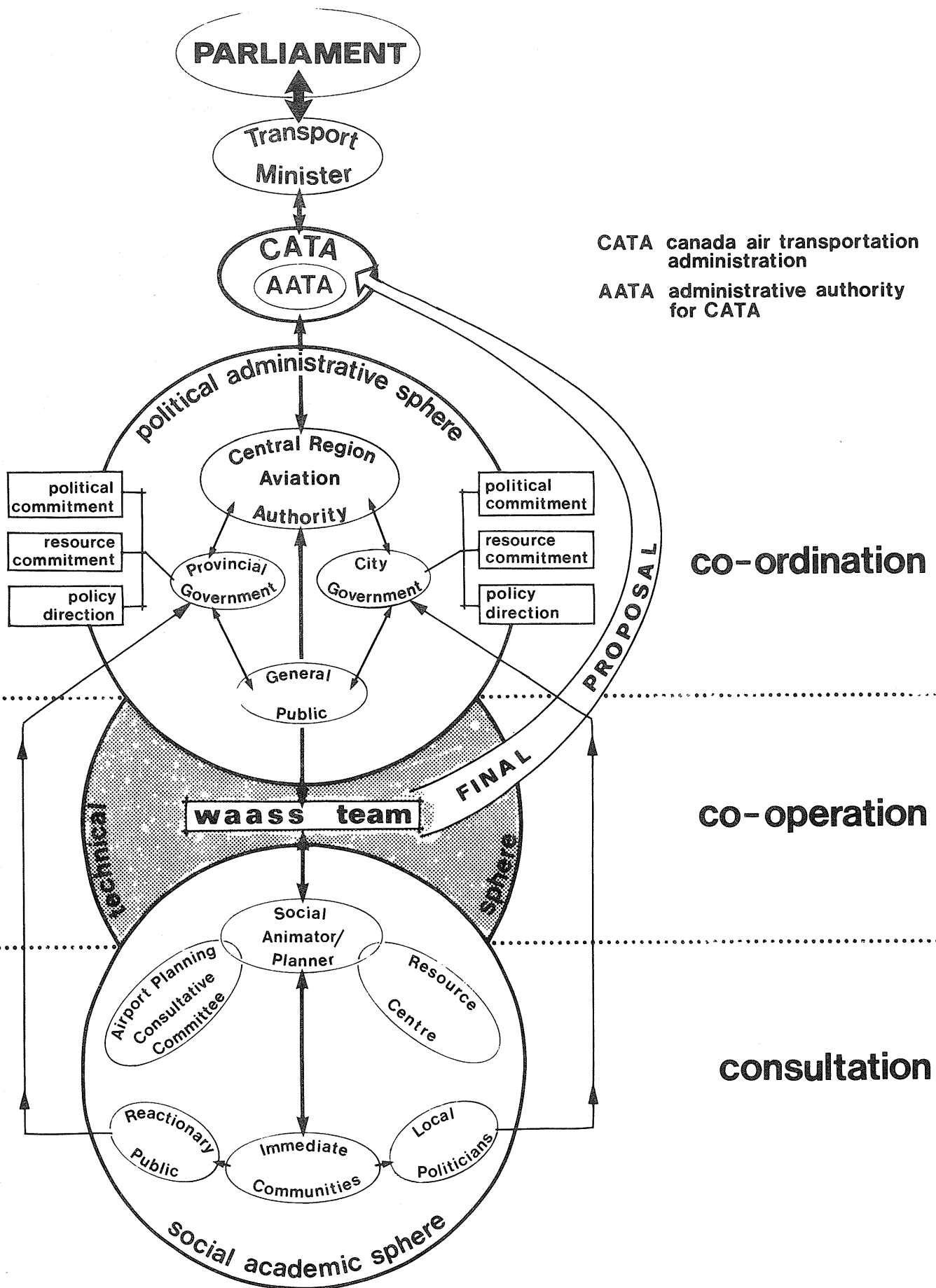


The circle labelled "A" in the conceptual diagram is a sub-model; as are circles "B" and "C". The functioning and task specifics of these sub-models are described in following sections.

The flow of information within any sub-model is contained within the parameters of that sub-model until all components are satisfied with the content of the output (or feedback), and designated responsibilities are fulfilled. It is then passed back down, or up, to the adjoining sub-model for their input. The mainstay component of each sub-model is responsible for the formalizing of output (Resource Centre, W.A.A.S.S. team, CRA). They must document feedback.

Circle "B" is the focal point of the proposed model. It is here that the technical requirements and expertise is brought forward. Commitments, information and feedback must all be transposed into meaningful decision criteria.

**CONCEPT of MODEL**  
**fig 10**



**COLLATERAL REGIONAL AIRPORT PLANNING MODEL**  
figure II

#### 5.4 THE COLLATERAL AIRPORT MODEL

Although the planning process is commonly referred to as being continuous with no definite beginning or end, this model will begin its description of the project conception as a result of the continuous check maintained on the airport system by a team of planners. This check is the responsibility of a planning team as yet not existing in the C.R.A. but which could be a part of the Corporate Planning Branch of the C.R.A. of the Ministry of Transport. The check they maintain would centre around the availability and distribution of resources involved in a current plan as these resources are utilized. In their task towards eliminating inefficiency they would of necessity include and incorporate the input from the sources shown in the diagram. This planning team would be the source for the introduction of any studies pertaining to the airport.

The official initiation of the project, and the first beginnings of the model of the planning process, would be recognized as the Federal Government's commitment through the Ministry of Transport to the funding of a study. The Federal Government Ministry of Transport, Aviation Air Transportation Administration (A.A.T.A.)\* defines the scope and objectives of the project as it fits into the National Plan.

##### 5.4. 1 The Political/Administrative Sphere of Influence

The four components within the top sphere represent the resources from:

1. Central Regional Authority (C.R.A.) from the Federal Government
2. Provincial Government (P.G.)
3. City Government (C.G.)
4. Public (P.)

The input that can be expected from the various components are described further here. From the Provincial Government (P.G.) the model will receive input in the form of:

- A. Political commitment throughout the lifetime of the project to be documented publically.
- B. Resource commitment in the form mainly of expertise.

\* A.A.T.A. is the administrative authority for Canada Air Transportation Administration (C.A.T.A.) headquarters in Ottawa who report directly to the Minister or Deputy Minister of Transport.

- C. Policy direction of the intentions of the Provincial Government in any area concerning the airport. This policy direction would be provided by the Urban Co-ordinator for the Provincial Government who is responsible for co-ordinating the policies of significance from the various governmental departments to the WAASS team.

#### 5.4. 1.1 The C.R.A.:

The C.R.A. would be represented by the various departments within the Ministry of Transport whose immediate responsibilities would involve the dissemination of decisions and directives from the Federal Government to the other members of the Political/Administrative Sphere of Influence. The C.R.A. as well as the P.G. would receive feedback from their commitments to the airport project from the Public component of the Proposed Model at the completion of the documentation by the WAASS team. The gist of this process can be seen by following the darker arrows through to the bottom of the diagram which ends with P. and L.P. The acceptance or rejection of commitment documentation would signal the direction of the process to go forward (with a sign from the public of continuance); or start again from the beginning of the model with an indication from the public for re-assessment. As shown in the diagram, the City Government (C.G.) would receive their feedback regarding the commitments established by C.G. directly from the component Local Politicians from the immediate communities surrounding the airport, and indirectly from Public (P.). The arrows depicted in this area of involvement indicate that the avenues of communication between the expertise and politics of the CRA, PG and CG are always open. This could be maintained by the establishment of a tri-level committee which is already in existence in Winnipeg.

The components termed the Provincial Government and City Government would involve the transportation planners and social policy analysts of those governments since political commitments are forthcoming. They would also include equal representation from elected officials at aggregate levels of decision-making.

The expertise from the various government departments would also find major involvement. This Sphere of Influence is termed Political Administrative and finds major involvement in the task of

co-ordination of the various resources provided by all three levels of government. As depicted in the diagram, the two components C. G. and P.G. provide for policy direction and integration with C.R.A., allowing for comparative expertise in evaluation, as well as resource commitments in terms of study participation.

Provincial Government planners could, for example, indicate their priorities in matters concerning northern development which would suggest the intensification or discouragement of traffic to semi-isolated communities and the anticipated subsidization of northern airlines. Not providing for model input from such entities of crucial significance in the past is perhaps one reason historical forecasting techniques have resulted in outdated airports by the time they are operational. As indicated in the diagram, the involvement strategy can be expected to provide co-operation and co-ordination by securing from the three levels of government input in the form of expertise, policy direction, resource commitments and political commitments which is adequately exposed to the public. Such input from designated components is imperative in the first stages of the planning process. Problem Recognition is a stage in the planning process that restricts itself from no interests.

#### 5.4. 1.2. City Government (C.G.)

Input received by the model from the component City Government would be, in many respects, similar to that provided by Provincial Government (P.G.). City Government interests are conceived of as being most adequately co-ordinated by a representative familiar with the policies of the Winnipeg Development Plan since this area of planning has in the past expressed a concern regarding the future development of the Winnipeg International Airport. Through such a representative the departments with vested interests in the airport planning could receive information on study progress and an input channel into the planning process. The Commissioner of Environment for the City of Winnipeg would report the future intent of the planning policies and interpretation of the implications of proposals by the airport planning team to city council. A public statement would be made relating the City's commitments and direct involvement in the planning of the airport. A similar exercise would be ensued by the Provincial Government.

These commitments from the various model components would be passed into the Political/Administrative Sphere of Influence in the Proposed Model to derive a consensus between the various entities regarding co-operation and co-ordination in plan making, before filtering down into the Technical and Social/Academic Spheres of Influence.

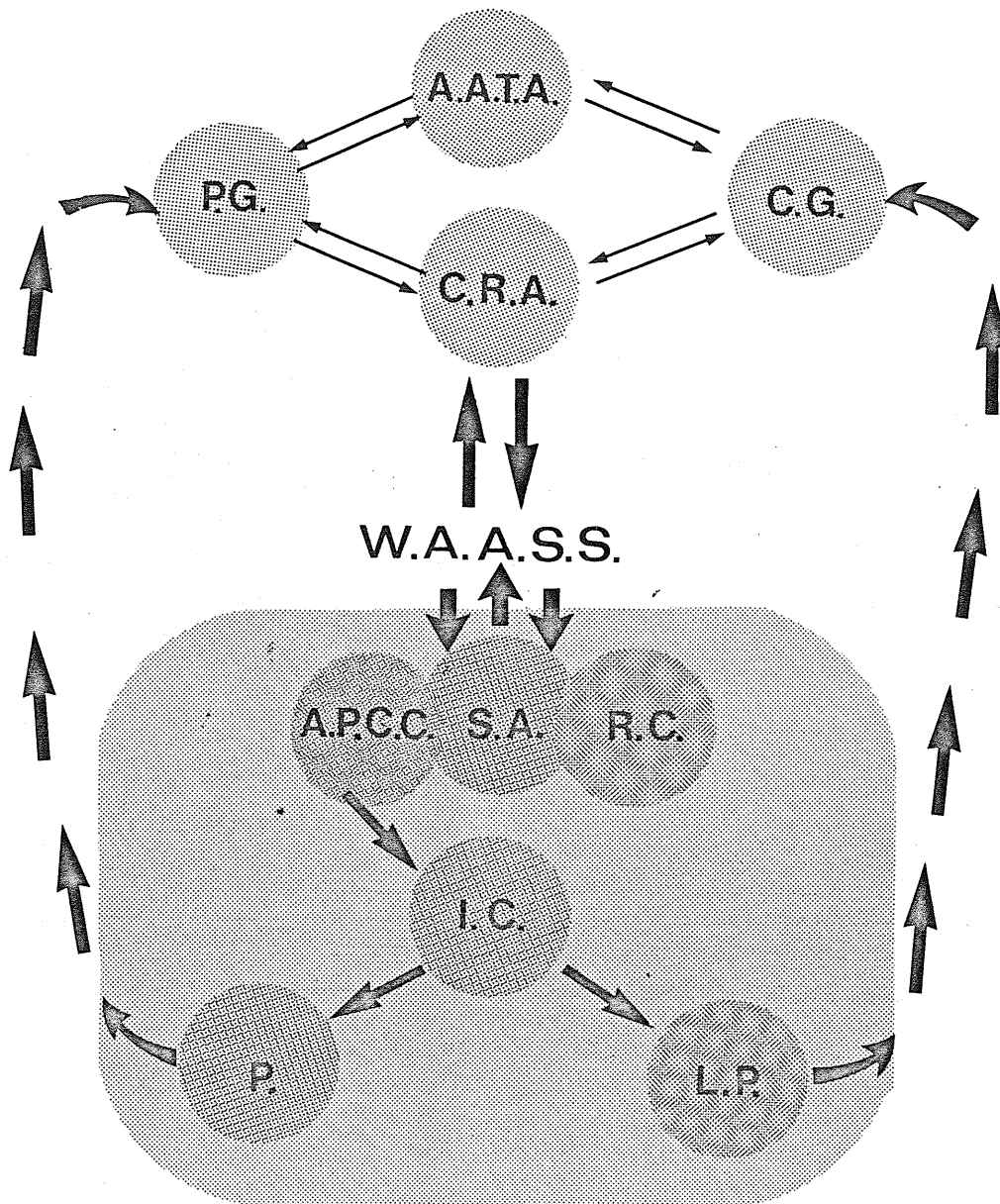
With the input introduced into the model through the expertise from the three levels of government the WAASS team would provide documentation of the commitments after feedback from the Public (P.) has been obtained. This document would then filter up (as shown) to the Political/Administrative Sphere of Influence and down to the Social/Academic Sphere for comments. The diagram on the following page illustrates (Figure I) the feedback process upon reception of the document by all model components. Feedback from all documentations provided by WAASS is received through a filtering up from the Social Animator/Planner and down (from the source of Public and Local Politicians as shown) from the Political/Administrative Sphere of Influence. Broken arrows signify a high degree of collaboration between the components highlighted.

The feedback from the components APCC, SA, and RS act as a check for reliability to be compared with the feedback filtering up through different channels from the general public to the components Provincial Government, and Local Politicians to City Government from Immediate Community.

Feedback from interest groups outside the City of Winnipeg or Province of Manitoba will be the responsibility of the Provincial Government.

The Provincial Government will be expected to act in their behalf in the Political/Administrative Sphere of Influence in arriving at a consensus with the interests expressed by City Government received from Local Politicians.

The WAASS team is the only tie the Federal Government has with the public. This is an asset to WAASS in gaining and maintaining credibility with the public. The WAASS team consists of a body of specialists (airport) and a body of urban planners who would enter, to be part of, the planning body of the consultants chosen to undertake studies deemed necessary. They would also be a major planning body themselves, with the



## Sub-Model Feedback

Fig. 12

*Sources of Feedback from various sub-model components to Political/Administrative Sphere of Influence at aggregate levels of decision-making*

help of airport specialists, in many of the studies throughout the project. This provides for a standard level of complication to be maintained throughout the lifetime of the project in every study area.

#### 5.4. 1.3. Public

The component of the Proposed Model labelled Public in the Political/Administrative Sphere of Influence is also a potential resource to be tapped in the model. This area is expected to designate their commitments to the planning process. The media could be regarded as a stalwart representative of this component in the beginning stages of the planning process, since the issues are brought to surface by such interest groups.

This component must be given sufficient evidence throughout the planning exercise as to the real power they command rather than the potential power traditionally held by citizen groups in the form of advice and assistance to their elected representatives. The Social Animator/Planner is their other source of input for mislaid feedback or the requirements from the other components of the Proposed Model.

The author regards this component as having been adequately addressed throughout this thesis regarding the why, where, how and when aspects of Public relations to the planning process and, therefore, model in general. The WAASS team is a primary component in the Proposed Model and is a separate and responsible entity completely divorced from the C.R.A. AATA duplicates all information destined for the planning process which accommodates the entrance of such information from two input sources, CRA and WAASS. In this way, WAASS is 'advancive' in its strategy and is not dependent upon other model components which may unnecessarily introduce a perspective from a pressure group which is already incorporated into the model. The client\* must be brought to the realization that they themselves are planners and no one is attempting to plan for them. The communication techniques employed by WAASS are considered worthy of encouragement in the first few stages in the planning process.

A process which ensures the dynamics of planning are accounted for in the planning model, begins with public consultation in the early

\*Although the client or public is assumed to be unsure of his or her desires or expectations from planning, with guidance and encouragement the desires will find expression.

stages of its research, and increases the scope of involvement as the scope of the process is enlarged with the new evidence revealed through the various plan-making and implementation stages.

#### 5.4.2 Technical Sphere of Influence

The technical sphere of influence finds major involvement in areas of airport planning which are concerned with technical reports and associated studies, such as were carried out in the description of the WAASS Model by the WAASS team. The WAASS component of the Proposed Model consists of a body of airport specialists with the same responsibilities as the specialists in the WAASS Model, but with a few additional members to the team. The component WAASS in the Proposed Model differs from the same component in the WAASS Model, in the respect that, a body of urban planners, one or more of which fill the position of SA/P, as well as the airport specialists, make up the planning team. The technical inputs into the airport planning model enter through this component. Various consultants, as well as the required additional expertise from the Ministry used for supportive staff in the WAASS model, would be included in this sub-model.

The functional difference of the WAASS component in the Proposed Model would be the enlarged planning scope the team is directly involved in. In the Proposed Model the urban planners, with the help of the specialists would undertake many of the studies assigned to consultants in the WAASS model. In the different studies throughout the lifetime of the project any study which necessitates the usage of outside help such as consultants, would see the urban planners acting as study co-ordinators on the consultant staff working with the consultants, ensuring a standard level of complication is maintained throughout the project. This would be brought about throughout the different studies by keeping in close consultation with the Social Animator/Planner and citizens.

The urban planners and airport specialists would be involved in the studies with the consultants, virtually using the consultants for the additional manpower and expertise, but not as the major designers and decision-makers in the needed studies.

An important function to be performed by the WAASS team in consultation with the member or members of the team designated as the Social Animator/Planner(s) would be the documentation of commitments from the Political/Administrative Sphere of Influence and the up-dating of the various Spheres to the study progress. They would function as a

general resource for information not available through the Resource Centre. This function would be available to any interest group whether their interests be within the bounds of airport responsibility or not.

The Social Animator/Planner is included in the Technical Sphere of Influence as illustrated by the parameter of the Technical Sphere although this component is colour coded as falling in the Social/Academic Sphere of Influence. This is because the SA/P finds major involvement in the study with the WAASS team although his or their allegiance is more affiliated with the Social/Academic Sphere of Influence. This is also the case for the involvement of the expertise from the components in the Political/Administrative Sphere of Influence where the diagram illustrates an overlap into the Technical Sphere of Influence. This represents the allegiance of the experts to the government entities in the Political/Administrative Sphere but indicative of the fact that they find major involvement with the technical duties associated with the WAASS component in the Technical Sphere.

### 5.4. 3     The Social/Academic Sphere of Influence

#### 5.4.3. 1     Social Animator/Planner

The Social Animator/Planner component introduces a rather novel concept in airport planning at the level of involvement termed Consultative.

The rationale behind introducing the Social Animator/Planner into the Proposed Model, is that it is generally recognized that citizens are unsure of specific desires but would be interested in defining them with help from an acceptable counsellor.

The Social Animator/Planner has a demanding schedule. He brings to light present and anticipated needs and desires of the Community/Public and suggests the most effective means of presentation at the most advantageous time. He ensures 'Public' is integrated into the various study designs of the rest of the planning team, exercising his planning knowledge of when and how to tap the Resource Centre.

The Resource Centre is a far more dependable and independent component featured in the Proposed Model than the source identified by the WAASS as fulfilling the citizens' requirements regarding requests and submissions from the WAASS. The WAASS team used the APCC to facilitate any request by citizen or other outside interests concerning the planning exercise.

It is the Social Animator/Planner who will guide the Community/Public with the steady hand of professionalism. He is a member of the planning team WAASS who exercises professional ethics at all times. He is the source available to outside interests who is always in tune with study progress. He is the resource to be tapped by the Community/Public for interpolation and interpretation of study findings by lesser informed or knowledgeable individuals about the planning process in exchange for information about the community. The major theme to be advanced throughout the planning process is that planning is done with and not for the public. The Social Animator/Planner acts in a capacity which is best described as advise and assist, although he is responsible for the working relations in terms of manipulation of component entities. An example is the task of translating technical reports and anticipation of planning strategies employed by various actors which he reports to the APCC and the Public.

Suggestions as to the best possible utilization of the Resource Centre to be employed by the Public or A.P.C.C., and at what stage in the planning process, are typical examples of the job description of SA/P so crucial in involving citizens and the maintenance of this involvement. A required source for feedback from the information A.P.C.C. disseminates to the immediate community and general public, the Social Animator/Planner would, in all likelihood, provide appropriate information regarding model improvement and/or improvisation. Political controversy may well be part of the initial stages of his intervention since leadership is an essential element often lacking in public action. The involvement strategy prevalent being consultation, what pressure group could not benefit from the experience and ability of the Social Animator/Planner?

#### 5.4.3. 2. Resource Centre

The Resource Centre portrays a dynamic image in the Proposed Model. The Resource Centre has no political affiliation or responsibility to any interest, other than the advancement of improved methodology. Master students from any interested universities would gain excellent experience in dealing with political strategies, as well as excellent exposure to the planning process.

The Resource Centre would link establishments, establishment activities, and is an important source of information to the Public. The Centre represents researchers in professional fields familiar with the most successful, updated planning tools; with input from experts who practise methods with measurable success. Current planning practises and comparison of evaluative techniques are theirs to expedite to the public as well as W.A.A.S.S. They assist the airport specialists upon request with academic expertise. The main function of the Resource Centre is to offer themselves as a resource to be exploited by A.P.C.C., Public and the Social Animator/Planner. They would produce position papers or reports, help with presentations, supply manpower and/or clerical functions.

The Resource Centre would operate on a grant from the Federal Government providing their services in a permanent position in the much needed capacity as a resource group for Tri-level committee formed in Winnipeg in 1976\*

\* Lack of leadership and resource commitment impedes proper functioning and progress of the Tri-level Committee

The Social Animator/Planner operates in close consultation with A.P.C.C. and the Resource Centre during problem recognition and plan alternative selection. The A.P.C.C., upon receiving the goals, objectives and problem statements in earlier stages and alternative plan designs in later stages, would report to the immediate community interests and public. After submitting the information as they see fit (whether or not it needs translation by the Social Animator/Planner or the Resource Centre where in the Animator would submit a position paper if needed) the A.P.C.C. would pipe the feedback information back to the Social Animator/Planner and W.A.A.S.S. This occurs after the immediate community interests have received their feedback from the public (general) and commitments from the local politicians.

The approval from the Social/Academic Sphere of Influence would then proceed through a filtering up process awaiting the final approval of A.A.T.A. rather than the filtering down of past practise. The public and local politicians would ensure adequate input without minor or major alterations through their influence with the input from City Government and Provincial Government in the Political/Administrative Sphere of Influence.

#### 5.4.3. 3. Airport Planning Consultative Committee

The A.P.C.C. component of the Proposed Model would retain the same membership as was present in the WAASS Model in the initial stages of the project but would expand its membership and increase the frequency of meetings as the study becomes more intense. The APCC's association with the immediate communities would be maintained, however, as the study becomes more intense other communities and interest groups would be included. The APCC and SA/P would have access to channels of articulation of interests through their association with WAASS directly, and indirectly through P. and L.P. This could act as a check for reliability of information from the comments received through, or by, P.C. and C.G. (from P. and L.P.) eventually finding its way back to the source of documentation: WAASS.

The Immediate Communities (I.C.) represent those communities, however defined by the interest groups concerned, who are affected in a more direct way by the airport than other interest groups (for example in areas such as noise, air pollutants, congestion, etc.). This might

be conceived of as including interest groups such as 'Silence'.

The component Public (P.) in the Proposed Model refers to the general public who are not as directly affected as the immediate communities, but who have similar vested interests. The input from such a component may be conceived of as coming from various sources of public opinion until the input is substantiated.

The component Local Politician (L.P.), consists of the local politicians who make it their business to keep in touch with the concerns of those they represent. It is anticipated they would more easily be recognized after the commitments from the P/A Sphere. As was suggested in earlier paragraphs, the politicians whose constituents are from outside the Winnipeg area would be persuaded to confront the P.G. with their desires.

### 5.5. SUMMARY AND CONCLUSION

We are all familiar with the dynamics of present planning practises which, for the most part, concentrate on the means with no sight of the ends. Operational improvements, legislative changes, and research and development techniques, all indicate the good intentions of various administrative "do-gooders" but signify system failure.

Even though the acknowledgement of problem areas is subtly admitted, few will identify the problem they are working for a solution towards specifically, in order to ascertain whether we move towards system improvement or system deterioration.

Perhaps this is one reason co-operation and co-ordination are such strange bedfellows. Once such problems have been addressed to everyone's satisfaction (that is, the existence of the problem(s)), we can move towards the acceptance of the mutual interests and responsibilities that concern all governments regardless of the B. N. A. Act of our distant past.

There is a problem of the grievances that arise when people become conscious of the nature of their problem. This, however, can be capitalized upon by the planner. Once facts are presented and one becomes aware something is wrong, the planner can use this support to gain credibility.

It is the author's opinion that if this model is strictly adhered to, all interest groups concerned with airport planning will benefit. This model provides for the achievement of substantially more input into the planning function and decision-making spheres. Although the time frame of the study duration may be longer than that of past practises in airport planning, the end result is a movement towards system improvement, rather than deterioration. There are, hopefully, less backward steps and more forward steps since there are more check points for information exchange.

Although including the Public in the planning function legitimately is still a problem to be overcome in many planning circles, there have been areas of substantial advancement. Environmental Impact studies in the United States have been found to move through the political machinery more effectively and efficiently with the usage of citizen participation.

*CHAPTER VI:*

*NEW DIRECTIONS FOR WAASS*

DIRECTIONS FOR W.A.A.S.S.

6.1. INTRODUCTION

The advantages of following a well-structured planning process cannot be denied or belittled. It was suggested earlier that the Sarly Models give a good account of the activity groupings for most planning procedures. Another point made was that the more desirable approach to the planning process would relate evaluation, not only to other activities in the planning body as Sarly proposes, but to the planning process in general which includes the administrative and decision-making bodies.

The definition of the term evaluation is described by Sarly as:

"the formal analysis of plans or projects in terms of their likely effects for the well-being of those individuals who are potentially affected by the decision, and thereby the implications of the alternatives for the welfare of society as a whole."<sup>1</sup>

This should and can be accomplished by including such concerns in planning. Planning which includes such concerns is a benefit to the planner in gaining credibility for the plan in the political arena, and a truer means of arriving at consequences of a more exact nature.

The rationalistic approach to decision-making, it has been suggested, is confined to situations where the choices made are characterized by clear goals and expected consequences; when predetermined alternatives subjectively preconceived by the decision-maker lend themselves to qualification.

A major theme of this thesis is that the planner must recognize the solution pursued is not necessarily "the" solution depending upon the amount of deliberation, research, funding, time and nature of the problem. As the planning process proceeds there may still be a solution which will be more desirable.

This chapter describes the application of the proposed model in respect to the W.A.A.S.S.

## 6.2 APPLICATION OF THE NEW MODEL TO THE W.A.A.S.S.

### 6.2. 1. Strategy

The strategy employed by the W.A.A.S.S. team was described in Chapter II. The W.A.A.S.S. team published the document, *Study Design/Project Work Plan* which was to give direction and provide a framework of study activities.

It was stated also, that the publication was designed to be vague and non-committal with the general intent to inform interested parties of the airport study. It was anticipated that through a series of Data Base Studies certain areas would be identified as being major areas of concern and could later, if necessary, warrant further investigation.

A tentative model was developed by the W.A.A.S.S. team because the team discovered that there was a lack of, and demand for, broader, more sophisticated planning requirements involving socio-economic and environmental impact analysis and the means by which to include such requirements they were unsure of.

An attempt was made later on in the study to develop a specific model for their purposes, but nothing came of it.

The significance of comprehending the avenues of manipulation open at the design of the study is a recurrent theme of this thesis. Continual articulation and manipulation of model components throughout the progress of the study as the "learning process" ensures, is an important feature of the General Learning Approach.

The author suggests the W.A.A.S.S. was an aberration according to the conventional, deterministic management tactics of past airport planning strategies. The admitted amount of uncertainty and establishment of a tentative model implies the W.A.A.S.S. planning body was, or could be, steering in the direction of a decision-making approach which falls within the bounds of the General Learning Approach.

The Ministry of Transport, therefore, appears to be aware of the limitations of the Rationalistic Approach to decision-making.

### 6.2. 2. Study Design & Research Methods

The methodology employed by the W.A.A.S.S. team was described in Chapter II. The study team followed the conventional Rational planning process (as shown in Figure I of Chapter II) in that they did

not perform the planning function for the Preliminary Problem Recognition and Definition stage, nor for the Definition of Planning System stage. The Data Collection, Analysis and Forecasting stage of the planning process introduced the planning body into the study. The Decision-Making and Management bodies performed the first two stages of the planning function.

A fairly accurate account of the success of any plan is the way in which the problem has been identified and then structured; from this depiction the interaction between various model components can be realized. It is through the problem recognition stage that the search for acceptable solutions can be addressed.

If the two stages described above involved the planning body (as described by Sarly) or developed within the parameters of the Proposed model, a significant improvement would evolve in being able to realize whether the planning activities move in the direction of providing answers or solutions which are improvements or deterioration to the predetermined problem.

Major areas of concern would be easily identified as the study progressed since the definition of the problem would provide all components of the model with more meaningful criteria for structuring the investigation as unpredictable problems arise.

Apart from the resource constraints, the problem recognition stage in the planning process is a significant aspect of the determination of scope throughout the study. A well-structured problem deals much more substantially with uncertainty and, therefore, is a major determinant of "best" choice.

In context of the W.A.A.S.S. Model; among other things, a well-structured problem is the means of orientating the outside help to the study. It does not hold true for the opposite. The outside help should not suggest study direction.

The proposed model depicts the involvement of all components in the Problem Identification and Recognition Stage of the planning process. This ensures meaningful participation by all factions throughout the lifetime of the project.

The W.A.A.S.S. team followed a methodology which was regimental; they might have provided for reassessment of various components throughout the planning process. R. Mack explains that

"minimizing the cost of uncertainty involves people-oriented as well as object-oriented, or call it task-oriented, behaviour."<sup>2</sup>

It is the W.A.A.S.S.'s concentration on primarily task-oriented purposes that is the aspect of their approach which is, hopefully, behind us.

The W.A.A.S.S. Model might have taken an example from the Bell Telephone Laboratories or any research methodology for that matter, dealing with the future.

"Because of the great uncertainties involved, much of the research was directed towards learning rather than toward the achievement of a specific and well-defined result. ...the direction of research changed dramatically in response to what was learned. There never seems to have been an attempt to list all research alternatives and to pick the best on the basis of some formal calculation. Rather, the discovery of new ideas and alternatives occurred often in the program.....only toward the end of the project was the design which has proved most successful clearly perceived."<sup>3</sup>

This quotation describes the underlying principles of the General Learning Approach which describes the strategy of the W.A.A.S.S. team in the initial stages of their study.

### 6.2. 3. Decision Making

A model describing the approach to decision-making would be limited in usefulness unless some formal discussion pursued describing the relationship between various types of decisions and action. This section will describe the proposed model's approach to decision-making which are considered to be improvements over the W.A.A.S.S. Model.

Some investigation of these relationships have been described by P. H. Levin. He cited three case studies of decision-making in his pursuit of a definition of a decision. Since the term is quite versatile Levin comes to the conclusion that decisions must be categorized. The scope for each decision as well as for each participant is not often the same. The respective influences of different partisans on the action ultimately taken is different, as is there a difference in various decisions pertaining to how crucial they are to the ultimate action. The definition he finally adopted specifies the decision-maker will form a mental picture referred to as an "action schema"<sup>4</sup>

where various conceptions of relationships between action and outcome are seen in juxtaposition.

To choose an action a person's schema\* will possess certain characteristics such as personal values and scope for action. It is the perception of such outcomes which will allow the decision-maker to determine choice. There are three varieties of action schema classified by Levin as being- 'action', 'outcome', and 'action/outcome' relationships".

"Under the heading of 'action' will fall all perceived courses of action, including actions specifically called for by certain outcomes, and all perceived restrictions and limitations on action. (Some of these will result in some of the perceived courses of action being labelled 'forbidden' and other 'permitted'; other restrictions will have the effect of 'tying' two or more actions together so that one cannot be undertaken - or can only be undertaken-without the other.) Under the heading of 'outcome' will fall postulated desired outcomes (goals), all outcomes expected to follow from specific actions, and all perceived restrictions and limitations on outcomes. (Some of these will take the form of limits of toleration, others will have the effect of 'tying' two or more outcomes together so that one will not be tolerated-or will only be tolerated-in the absence of the other, yet others will take the form of requirements that the outcome should be an optimum.) Finally, under the heading of 'action/outcome relationships' will fall relationships implicitly identified (e.g. expressed in statements of the form 'if this action, then that outcome') or explicitly (e.g. the number of people initially accommodated in this housing estate will be determined by the number of bed spaces'). Action/outcome relationships may be seen as probabilistic or as conditional, and may accordingly subsume assumptions about the influence of independent variables reflecting such factors as the behaviour of the economic climate or of other people not susceptible to the decision maker's control. By using the actions outcome relationships, a specification of

\*Schema-an active organization of past reactions or of past experiences which must always be supposed to be operating in any well-adapted organic response.

the actioned called for to achieve a particular desired outcome can be derived from the specification of that outcome, and a specification of the outcome following from a given action can be derived from the specification of that action."<sup>5</sup>

The definition then of a "decision" will be referred to as:

"A deliberate act that generates commitment on the part of the decision maker towards an envisioned course of action of some specificity, and is moreover an act that is made in the light of - and is consistent with some at least of the elements of - an action schema, the components of which are classifiable under the headings of action, outcome, and action/outcome relationships."<sup>6</sup>

The definition of schema has allowed for a basic premise on which to support the argument for the limited cognitive capacity of decision-makers. This definition defies the rationalistic approach challenging it for one more concerned with change in response to new evidence (General Learning Model).

Levin defines further the decision-making process as the "sequence of activities lying between the immediate manifestation (or even the initial formation of a purely private resolve) and the ultimate manifestation, the actual occurrence of the action resolved upon".<sup>7</sup>

He makes the distinction between two types of action and outcome - the "real-world system" and the "institutional system". The immediate and subsequent manifestations of a decision, Levin suggests, result in commitment by the decision makers to the specified action intended to establish the ultimate manifestation.<sup>8</sup> This then, is the description of decisions characteristic of the proposed model.

It is necessary to distinguish in our model the constituent decisions and actions of the various spheres of influence at aggregate levels of decision-making. By examining the implications we may discover how they relate to each other. With the development of a definition of "decision", the proposed model for airport planning will indeed be a learning model and an improvement over the WAASS Model, since:

- a) past observations may be categorized for later examination and updating
- b) practical application of the decision-making implications provide a framework for actors at aggregate

levels of decision making in the planning process. It aspires to give coherence to the differences in actual situation by suggesting characteristics of problems at hand.

An efficiently involved public, through political pressures, would accommodate the desirable intentions of Levin to involve the decision-makers with evaluators. This would ensure commitments from the political arena at aggregate levels of decision-making. By involving the public in decision-making spheres, as the proposed model suggests, political decisions would have to be justified, and commitments would be formalized by politicians in concordance with public and planners alike.

Another improvement over the W.A.A.S.S. Model is that cognitive strain will be reduced since the past commitments from politicians will not be used to show indiscretion and some time in the future. This is because study direction is constantly under review. There is no need for concern or embarrassment on the part of the politician that Levin describes.

#### 6.2. 4. Co-operation And Co-ordination

The jurisdictional responsibilities in urban transportation and the problems associated with the responsibilities cannot be divorced from the social structure of which they are an integral part. The reluctance on the part of senior governments to disseminate financial autonomy to local governments is an issue which will probably always be debated, especially in light of the ever-growing responsibilities of urban areas. This reluctance on the part of senior governments is comparable in many cases to the reluctance on the part of local governments to participate in any way but fragmentally in decisions which do not fall specifically within their legal jurisdiction. How major decisions have been arrived at up to this point in time with such a negligible amount of co-operation and co-ordination, especially in planning, fails us - and more than likely most of society.

As a recent newspaper article suggests,\* not only between the three levels of government is co-operation and co-ordination lacking, but it is also an unhealthy relationship between politicians, the planner

\*Documented in CHAPTER III

and the community. Although the W.A.A.S.S. team has made an effort to obtain information and include the other two levels of government, there is no evidence available to suggest what kinds of input W.A.A.S.S. allowed for and what strategies they would employ to maintain interest groups.

A case study on the Pickering Airport in S. Budden and J. Ernst's "The Movable Airport" gives a good account of what citizens can expect from politicians and airport specialists.<sup>9</sup>

Perhaps the most interesting evidence of the lack of co-operation and co-ordination between governments even at such a late date in the airport planning process and in the planning field in general may be provided by an alarmingly coincidental newspaper article.<sup>10</sup> By the term 'late date', the author suggests the lack on the part of professionals working in the fields, to incorporate suggestions from the literature pertaining to the well-flaunted issue of co-operation and co-ordination.

The opening paragraph of the newspaper clipping\* gives ample evidence of the accuracy of the argument suggested in earlier sections of this thesis identifying the lack of, and need for co-operation and co-ordination. The newspaper article continues through quite an accurate description of the reception the WAASS study has been given in the professional circles:

".....then there was the WAASS meeting scheduled at city hall last April. It was noticeable for the empty seats-----the ones for the councillors.....to sum up the federal experts' view view of city hall. They wonder whether any civic personnel or politicians -----or anyone in Winnipeg, for that matter -- really cares about the airport's future."<sup>11</sup>

The WAASS team have made commendable efforts in inviting input from other levels of government, however, it appears such entities are suffering from a lack of manpower or interest, or both. The other two levels of government have not shown any real interest in the planning exercise regarding the compatibility of airport requirements with their own planning interest other than to appoint representatives

\*See next page

FRIDAY NOVEMBER 5, Pg 1, 1976 WINNIPEG TRIBUNE

# City may co-operate on airport study

By Tom Shillington  
Urban Affairs Reporter

The relationship between city hall and federal transport experts looking at the future of Winnipeg's airport has never been particularly close.

But there are encouraging signs that both sides are going to start listening to one another, as the Transport Canada's Winnipeg Area Airport Systems study (WAASS) gets near the crunch time of making recommendations.

What's happened?

Council's environment committee recently agreed to establish a three-member ad hoc group to act as a liaison between the committee and the WAASS project. And none too soon. Project leaders are expect-

ed to "go public" again later this month, with the release of five basic options regarding the airport's development and location.

The ad hoc group will open up channels of communication and advice and "consider requests for support services if necessary."

That's good news. Major airports, by their very nature, deal with broad land use, environmental planning, and safety, noise

## Insight news

and pollution factors. Simply by where they are located, and how they are allowed to develop, they shape a large slice of a city. And a city government must have a voice in these decisions.

Relations between the city and federal government on the issue, though, have probably only one way to go: Up. Not that there are any heated tempers, or power plays going on. It's just that a rather vital, if complex, matter has been handled in a

rather non-communicative way.

People on the city side of the fence, for their part, have seemingly adopted a wait-and-see attitude, while WAASS has gathered vast statistical data. Now that this data is trickling out, there is, perhaps not unexpectedly, surprise among city politicians and administrators.

Environment commissioner Dave Henderson, for example, was surprised, and more than a little upset, that WAASS had apparently not adequately considered public safety aspects of the development.

There have been other breakdowns in attempts to let each side know what the other is thinking. While several WAASS informational meetings with community

See COUNCIL, Page 5

# Council may co-operate

(Continued)

committees affected by airport noise and expansion were well-attended and helpful, a scheduled meeting in Assiniboine Park met with disaster. A mix-up on a busy agenda on a hot summer's night led to the WAASS team walking out and holding an informal gathering on the steps of the community committee's office.

Then there was the WAASS meeting scheduled at city hall last April. It was noticeable for the empty seats — the ones for the councillors.

This last example seems to sum up the federal experts' view of city hall. They wonder whether any civic personnel or politicians — or anyone in Winnipeg, for that matter — really cares about the airport's future.

It's a key question. Two exhaustive studies prepared by independent groups for the WAASS project strongly suggest the answer is no. Surveys of both community resident and perceived community "leaders" indicate that the airport, by itself — with its noise, pollution and potential safety concerns — is not the major factor in determining whether someone likes or dislikes his community.

Instead, the general nature of the community, its recreation facilities, convenient location and provision of social services, are far more influential.

So, in the "social concerns" and community characteristics study, based on a survey of 2,000 households, airport noise does not emerge as a big villain.

Among its findings:

- Only 16.7 per cent of surveyed residents living in high "noise exposure" areas near the airport were dissatisfied with the noise problem; the percentage dropped steadily as the measured noise contours decreased;

- More than 83 per cent of the population in every noise exposure level was satisfied overall with its residential location;

- Nearly half the population expected the level of noise

they experienced prior to moving into their neighborhood; about 63 per cent thought their property value had remained constant;

- About one-third of the population believed authorities were trying to do something about aircraft noise.

If noise is not a major concern, public safety and the aircrafts' impact on air quality emerged as greater worries — although still nothing on the order of city-wide anger.

For example, in the highest noise zone, 46.7 per cent of the group feared a crash in the neighborhood. That dropped to 20.9 per cent in the lowest noise exposure level.

In the high zone, more than half, 53.3 per cent, believe the airport affects air quality, and only 35 per cent approve of the present location.

Understandably, those figures decrease with greater distance from the airport. In the lowest noise zone, only 28 per cent are concerned about the air pollution factor; and only seven per cent disapprove of the present location.

The concerns study also indicated there are positive aspects to the airport's location. High percentages in all zones believe that the airport itself is "very important" to Winnipeg, and that the present facility is conveniently located in terms of accessibility.

The second study done for WAASS was of a narrower scope. It included about 70 "leaders," including politicians from all three levels of government, school principals and citizens generally considered to be leaders in the community.

Again, the problems of noise, danger and pollution were the top concerns. But again, the degree of concern is not as high as one might suspect.

Only half the "leaders" mentioned noise as a personal concern or a source of complaints. The danger of air crashes was listed by just 20 people. And air pollution was cited as a concern by only 13 leaders living in areas close to the airport.

The airport's convenience was again high on the plus side, with 42 of the 70 persons surveyed perceiving this as a benefit. Many stated they didn't want to see in Winnipeg a Mirabel, or Edmonton airport, far out of the city.

Another 11 replied that the airport's location had economic benefits for the city.

to the Airport Planning Consultative Committee as requested by the Ministry of Transport.

Co-ordination of study findings and planning progress have generally developed in an enthusiastic light; WAASS team members display a genuine desire to provide any information requested. What happens if information is requested or issues brought before APCC is discussed in this chapter under public involvement.

The co-ordination between WAASS and vested interest groups has been good: the opposite has unfortunately been non-existent. With this factor in mind, it is no surprise that co-operation has been an element whose appearance is few and far between, except within the Ministry itself.

With no pressure brought to bear on the politicians to maintain a check on the development of airport progress, the politicians and civic personnel are quite satisfied to curtail their activities to within the realms of their immediate interests. The average politician or civic employee is quite content with his current workload without attempting to orientate himself to the federal government business activities and maintain the information flow needed to keep on top of the situation, even if the airport is a major concern.

To maintain or even stimulate interest there must be something attractive about the issue. Many academics would go a step further and add that there must be something in it for the participants. If interest groups or individuals can expect to receive the same amount and quality of feedback displayed in the past by airport authorities, then it is no wonder one can recognize an apathetic indifference prevalent in Winnipeg.

The blame for the lack of co-operation and co-ordination cannot be hung on the shoulders of any one level of government, however, a belligerent attitude on the part of any government representative which hinders co-operation and co-ordination certainly should be exposed publicly. The City should provide some leadership, especially since they are currently involved with a development plan for greater Winnipeg.

As Sandra Budden states in *The Moveable Airport*:

"The Federal Government has always made itself responsible for airports, and the provinces have never questioned its authority to do so."<sup>12</sup>

The Federal Government has shown a willingness to include the city and province, even if the gesture might be referred to by some as tokenism. This area of involvement must be sincerely approached since it is a necessity in plan-making where a General Learning Approach is pursued.

The proposed model depicts improved relations regarding co-operation and co-ordination between and within agencies and interest groups by formalizing input channels and requiring various sub-model input before proceeding forward with the planning function.

#### 6.2. 5. Information Sharing

It is hoped the advantages of this concept are so obvious a lengthy dissertation can be avoided on the advantages and disadvantages of this aspect of the model. Fair enough it is to say that it gives the proposed plan credibility and, therefore, a foot to stand on in the political arena simply because the citizens have provided their support and energies equally and as sincerely as the planners and politicians have provided them with their expertise.

Past problems, by the same accord, are past and the seemingly numerous occasions where shared information, a product of co-operation and co-ordination, could have accounted for great savings, need not be dwelt upon. Fairly insignificant commitments between the three levels of government and information sharing would help a great deal; surely, it would help any competent technician. The point being driven home is that citizens must also be allowed into the circle of information sharing since they are in the best position to anticipate social needs.

Politicians similarly, must share information and throw aside the "old" politics of the manipulation of interests as Budden indicates "in the notion that only representative government and majority rule are synonymous with democracy".<sup>13</sup>

It is a well-conceived strategy which will allow for the mistrust citizens will display towards politicians and planners. The documentation regarding the underhanded dealings citizens have had to put up with in the past is lengthy and far too recent.

The Toronto experience is not very far behind us:

"...all but a few of the politicians involved in Toronto II practised the politics of deceit, of paternalism, of silent majorities, of party influence, of hidden negotiations, of manipulation and suppression of the facts, and of the polarization of interests and personalities."14

Politicians will naturally insist they are being undermined in their sincere efforts by a disagreeing and hindering minority where they themselves are only trying to do their job in 'good faith' or following the principle of utilitarianism. It is up to the planners to extract and expose the commitments of politicians, not only for interest groups which are complimentary, but all varieties of interests, as irrelevant and isolated as need be to gain the credibility of the community and to fulfill the needs of the people-oriented deliberative process aspect of the learning model R. Mack delineates.

The planners must ensure:

"a 'new' politics...is (developed), a politics of open and full discussion of the issues with all the people in a community and with an eye not to achieving a majority, but some kind of consensus."15

Vital issues such as international airports which are with us for a long time and affect the whole metropolis; cut across social class lines. Therefore, everyone should be concerned with the liveability aspect of the location of an airport.

WAASS indicated their knowledge of the need to provide for co-operation and co-ordination by their pursual of input from other interest groups. It was pointed out in earlier sections, however, that co-operation and co-ordination, although sincerely attempted, was not a distinguishing feature in the WAASS case study, other than within the Ministry itself and between themselves and their consultants. The airport specialists treated the planning process very openly in terms of sharing information. This is an area which appears to need the support of the other levels of government with the same attitude displayed by the airport specialists.

The proposed model is operational only under circumstances involving high levels of information sharing. Political commitments imply a need for expertise.

Pressure for good avenues of information sharing will come through the need for expertise to be comprehensive.

A search of the literature on the subject of social animator failed to reveal any documentation. It would appear this occupation or function is either not acceptable or insignificant enough not to warrant inclusion in research reports dealing with its applicability.

The intention of this section is to describe the duties of the Social Animator/Planner in respect to the model. An adequate reference to what might be perceived as a slight description of the duties assigned to this position is entertained by Levin in his description of a schema.

"A schema may, however, develop through interaction with that of another individual or group. 'Interactive' development of an intervention schema takes place when, for example, one group persuades another to share its view that its 'facts' are wrong, or that insufficient importance is being attached to certain of the envisaged outcomes of an intervention. Interactive development of an institutional schema takes place when, for example, one group succeeds in changing the pattern of perceived institutional goals and commitments embodied in the institutional schema of another. This may come about as the result of persuasion, or through bargaining, which has the effect - if carried to a successful conclusion that the two sides both acquire a new commitment, namely, to honor the bargain. It is in practice unusual for interactive development of the schema to take place without interactive development of the other. Once preferences have formed for a particular specification or range of specifications for intervention, then there almost certainly exists commitment and the pattern of preferences cannot be significantly changed without changing the pattern of commitment."<sup>16</sup>

This description of schema entails one of the many duties of the Social Animator/Planner perhaps the most difficult, yet important.

The Social Animator/Planner ensures the public is involved efficiently and that a standard level of complication is prevalent in the planning process. It is his position in the model to employ all interest groups in a relationship which is conducive to co-operation and co-ordination.

His attachment and involvement to the most efficient utilization of up-to-date scientific methodology as provided by the Research Centre is instrumental in presenting new evidence in an impartial light in a gesture to review and re-assess study direction. This provides the

impetus to the planning process to concentrate in different directions or remain on course as the evidence warrants. WAASS could have used such a feature in their model which would have provided the support to the evidence presented by Mr. D. Smith regarding the expansion of the component referred to as Public in the WAASS model of this thesis and APCC in his report. This would have settled the controversy surrounding the Community Concerns Study which is a desperately essential aspect of airport planning.

Guy Beneviste<sup>17</sup> suggests planners and experts are able to have a multiplier effect on public and private decision-makers when the statements they make about the future are perceived to have a high probability of proving true. Therefore, the way the experts present their recommendations or plan provides a new source of social power, an instrument which in the wrong hands could prove very costly. This is the reason the Social Animator need be a planner, thus the term Social Animator/Planner.

In the past, this instrument has been manipulated by politicians in the guise of the 'public interest'. It is the Social Animator/Planner who anticipates the various strategies and suggests, interprets and manipulates, in the best interests of the community, the most advantageous means of utilizing this power.

The Social Animator/Planner can interpret technical reports which allows the public a more objective assessment than in the WAASS Model. Two central factors came into play in creating perceptions of the subjective probability that a plan will be implemented:

- (1) the apparent rational or scientific basis of the experts statement.
- (2) the known supportive commitments of a number of implementers sufficient to create a belief that the plan will become reality.<sup>18</sup>

An expert's access to intelligence, Beneviste tells us, particularly classified intelligence that is difficult to evaluate or question, combined with the known existence of a significant coalition of political supports would provide planners with an indirect multiplier strength that allows them to exercise more influence than they could achieve directly.<sup>19</sup> This form of social power allows the planners the opportunity to mobilize support for the technical process if they and the Resource

Centre agree on its validity. Therefore, in the Proposed Model the areas of influence termed Political-Administrative, Technical and Social-Academic signify where various types of decisions concerning proposals undertaken at aggregate levels of decision-making are to halt, deflect or be supported. The Social Animator/Planner interprets the aggregate levels of decision-making to those not familiar with the planning process especially in the case of the community so often confused with administrative procedures and caught with their guards down. He will provide an analytical framework for future direction.

There is, however, a grave danger inherent in dealing with pressure groups, especially if the planner is not deeply rooted in the community he is trying to work with. This is another duty to be performed by the Social Animator/Planner - making sure the planners have access to the community they think they serve.

Beneviste brings to the surface a major factor in the success or failure of the people-oriented prognosis which, unfortunately, WAASS is guilty of - when the planners find that they have access to, and communications with, "their social counterparts in the wealthier parts of town".<sup>20</sup>

The effectiveness of the participation program is in the hands of the Social Animator/Planner. He must ensure such delay mechanism, as experienced by P. Marris and M. Rein, are overcome.

"A policy of institutional reform clearly could not depend for its mandate only on the support of the institutions to be reformed, however powerful their influence. Mayors, school superintendents, public-spirited bankers, representatives of organized labor, pastors of churches, were not the accredited spokesmen of the poor. They stood rather for the established power..The Ford Foundation and the President's Committee had already devised safeguards against the abuse of their aims through...the requirements of rigorous preliminary planning...The gray area projects were to 'plan with people, not for people' (but) the leaderless, ill-educated, dispirited people of a city slum, if they could find their voice, would hardly speak to the brief of a nationally-minded elite of university professors and foundations executives. Research planning and co-ordination must seem remote answers to a rat-infested tenement, the inquisitorial harassment of a welfare inspector, debts and the weary futility of killing time on the streets."<sup>21</sup>

## 6.2. 7. Cost Saving

Most of the criticisms have implied, on some occasions it has been clearly stated, the various components of the model which could have been treated in a much more efficient manner.

The costliness of analysis is a fundamental fact that all analytical strategies should face up to. Martin Meyerson and Edward Banfield make a persuasive case against thoroughgoing examination of the problem situation, of alternative courses of action and of consequences, in their case study of policy-making with respect to public housing, as it contrasts with the inadequate examination of any technical knowledge regarding social phenomena. This is a cost borne by most rationalistic approaches based on Cost-Benefit analysis.

"No one had precise or systematic knowledge of the ends that people entertained regarding public housing...It might be that the clearance of slums in one place created new slums or worsened old ones somewhere else.....No one knew."<sup>22</sup>

In short, information is extremely costly and is not always worth pursuing especially in light of areas of uncertainty which are not even acknowledged but which accumulate costs of a noticeable magnitude. Hence, comprehensive analysis is not always worth its cost.

## 6.2. 8. Depth of Commitment To Citizen Collaboration

The first paragraph of the Study Design/Project Work Plan of the W.A.A.S.S. dissertation captures the approach employed in the WAASS Model regarding public involvement in the section referred to as "Public Participation and the Winnipeg Area Airports System Study".<sup>23</sup>

Although the description of the W.A.A.S.S. Model in previous sections portrays accurately the involvement of the Airport Planning Consultative Committee depicted as a tangent to the Process-Oriented component, it does not do justice to the efforts of the W.A.A.S.S. specialists in attempting to establish credibility with the community, to date. Up to the completion of the Data Base Studies participation by the public other than A.P.C.C. members had been minimal. (A cursory examination of the A.P.C.C. membership will indicate the W.A.A.S.S. participation falls victim to the dilemma Marris and Rein speak of.)

This was to be expected since, for the most part, the technical nature of much of the proceedings consisted of inventory work, of little

interest to any but Ministry of Transport personnel. Public interest is expected to increase for the next phases of the Study as issues of importance to a larger portion of the public begin to surface.

The suggestions made by the consultant pertaining to citizen participation in the next phases entailed:

- 1) Clarification of substantive issues in reasonable detail.
- 2) Elaboration of the procedures and devices for gaining citizen involvement and participation in discussions of these issues from the general public as well as those involved.
- 3) A report to be produced summarizing the work that has already been done and results achieved. The report should be accompanied by an outline of the major issues which will now occupy the attention of those involved in the Study.
- 4) Increased participation as involvement increases with the expansion of data.
- 5) Expansion of A.P.C.C. to a city-wide basis.

These concerns expressed by Mr. Smith in his report on citizen participation for the W.A.A.S.S. are an excellent example for the need for a Social Animator/Planner. Every duty Smith suggested be performed by W.A.A.S.S. to improve their planning process is anticipated in the proposed model as falling under the responsibility of the Social Animator/Planner. The W.A.A.S.S. model had no means of gauging whether or not they were getting through to the community or general public at large. The effectiveness of their approach would have been kept in check with the addition of such a feature.

The citizens should have been involved in the design of community concerns study since, as Smith indicates in his report,

"One of the technical reasons for engaging citizens in planning exercises is that individuals and groups are the only persons in possession of the information needed in planning. The argument for the use of sampling and investigative techniques that is based on "objectivity" and scientific validity is not straightforward from a scientific point of view and may be counter-productive, since intelligence gathering is not citizen involvement and should not be confused with participatory techniques."<sup>24</sup>

A point has been made throughout the thesis, insistant that citizen participation must be more than selected information sharing and communication with specified interests or pressure groups.

The planning process is usually a filtering down process where the citizens are the last rung on the ladder. This concept will be utilized with the basic alteration that a filtering up process will be the feedback mechanism for certain decision areas. The collaborative process should be thought of as an alternative to the current comprehensive planning process practices. As David Godschalk reveals:

"By substituting a vigorous collaborative planning process, planning would become a guidance device, firmly rooted in actual human activities and values.....Activities analysis is one useful tool for gaining (an) understanding, especially when used as a two-way communications device as well as an analytical technique."<sup>25</sup>

The basis from which to launch an approach to planning which throws aside the conventional ad hocism is complete. The four themes which run throughout the thesis have been adequately addressed. The major changes which accommodate an improved model have been described.

#### 6.2. 9. Plan Evaluation

Rational planning is defined in a paper by Morris Hill as a process for determining "appropriate future action by utilizing scarce resources in such a way as to maximize the expected attainment of a set of given ends".<sup>26</sup> To these ends a technique was developed with emphasis placed on the evaluation of plans for a single sector with the single goal of economic efficiency, called Cost-Benefit analysis.

The initial conception of Cost-Benefit analysis was to determine a valuation technique for local or special benefits accrued, as justification for charging local interests with part of the cost of a proposed project. The methodology derived was confined to tangible costs and benefits, up until the time when the need to identify a broader social justification for projects was heard.

New techniques dealing with the economics of large public investments have attracted the attention of serious professionals. Until quite recently, however, they have been concerned with trying to improve or alter the Cost-Benefit techniques originally designed to deal with tangible costs and benefits. Some factors of a catalytic nature were:

- 1) growth of large investment projects and their repercussions

- 2) growth of the public sector
- 3) development of quantitative techniques such as operations research, systems analysis.

Somewhat of a dynamic factor has been society itself and a growing awareness of just what criteria liveability is or should be based upon. Education and the media have played a strong role informing the public of the magnitude of wastage and breakage our system subsists on, just how poorly it is unmanaged, and how inept we are at controlling it. Another element which brutally attacks our present means of trying to measure and categorize anything we do into benefits and costs has been the recent failure of basic Keynesian economics to provide us with a solution to our current economic crisis. C-B A was derived from the theory of the firm which is geared towards maximization of profit, transposed onto the public agency. The private allocation model's extension to the public sector raises a number of problems:

- (1) There must be no barriers to the flow of funds and resources.
- (2) Benefits and costs must be determined at competitive market prices,
- (3) There can be no external economies or diseconomies
- (4) There will be no other external effects in existence.<sup>27</sup>

This can never be the case in the public sector since many costs cannot even be measured, let alone expressed in market prices. It can be argued, however, that certain projects must be accounted for and cost-benefit analysis is the most efficient means. This is a fact which cannot be denied in certain projects where values and facts, means and ends are clearly distinguishable.

N. C. Nwaneri suggests, if Cost-Benefit analysis is to have any prescriptive value it must answer both the following questions:

- (a) Is the public expenditure on the project in question "economically" efficient?
- (b) Are the results of the public expenditure socially desirable in the sense of being equitable?<sup>28</sup>

Economic efficiency, coupled with impartial justice is certainly no means of improving anyone's standard of living in projects dealt with by public agencies. It is obvious this is the rule of thumb suggested to us by practising engineers in providing livability criteria. Hopefully, such a rule of thumb has provided for a means of measuring the transition from the uncivilized to the civilized professional. Once it is cast aside we can look to more civilized livability standards.

Air travel has become one of the least self-reliant members of the transportation industry, since it had never been necessary to account in a cost-benefit manner for its continued support from public funds. This was responsible for the relatively sparse amount of useful statistical data which was available for the planners and decision-makers up to the mid 1960's. The W.A.A.S.S. specialists expressed their inadequacies in terms of relevant information available for planning purposes. Why start at this late date in directing so much attention at an approach which is passe?

N. Hill tells us that cost-benefit analysis of alternative investments in the public sector should express social costs and benefits as well as private costs and benefits

"Although lip service is generally paid to the consideration of the intangibles, they do not really enter into the analysis. The net result of this is that the effects of investments that can be measured in monetary terms (whether imputed or derived from the market) are treated implicitly as being the most important effects. In fact, the intangible costs and benefits may indeed be the most significant."<sup>29</sup>

He goes on further to state the case for a new evaluation technique when he professes:

"The achievement of maximum economic efficiency is most likely to approximate the achievement of maximum economic welfare for those public activities that most closely approximate private economic activity and have well-defined products subject to market transaction."<sup>30</sup>

## 6.2. 10 Public Involvement

Public involvement has been confined to the circles of vested interests which follow from contacts with community interests, government interests and related industry interests on the Airport Planning

Consultative Committee. This is the only form of public involvement, although various attempts to inform the public of what is going on and getting them interested in what they are doing has been attempted by the W.A.A.S.S. members on A.P.C.C.

An examination of the minutes of the A.P.C.C. meetings up until July of 1976 indicated W.A.A.S.S. has had a genuine interest in informing the public of what they are doing and how they are doing it, from the beginning which is an improvement from past practises of the Ministry. The participation program appears to fall victim, however, to the same criticism as Resident Advisory Groups (a group from which the A.P.C.C. was to gain credibility by using them as a means of contacting and informing surrounding communities) of Winnipeg Community Committees whose duties have been interpreted as to 'advise and assist' politicians. The amount of advice that is 'considered' by officials, however, is negligible, providing the kind of 'assistance' politicians thrive on.

The idea of setting up a committee such as A.P.C.C. for input from such a wide spectrum of interests is acceptable yet input from these interests did not come often, however appropriate it might appear. This committee could have been the focal point for co-operation and co-ordination between government----planners----and citizen. As it stands it is neither a good utilization of citizen participation, nor a good means of ensuring co-operation and co-ordination. It seems the committee organizers are caught up in the 'conflict of interests' and try to cater to both sides of the fence (although the interests of each side are often conflicting). It is anticipated that a consensus could be arrived at since the M.O.T. personnel are quite willing to provide any information to interested members if only priorities of the committee could be straightened out. They have lost sight, as do many public representatives, of who their real client is.

The committee does not dwell on major issues in the planning process, it is geared more towards providing a final check on research questions and information gathering. What would happen if a major issue such as safety versus accessibility were debated? What usually happens is a request for more specific information. As planning progresses, interest is lost in past issues (the meetings are

held once a month) and more information and discussions come up because the requested information is a long time coming.

Confrontation is the only means citizens have available to obtain their ends, in most cases, as contrasted with the many channels open to government or industry-related interests. In light of the paternalistic relationship existent, as it is called by some, it appears unlikely confrontation will be an appealing prerogative. The four citizen members of A.P.C.C. could form a coalition with a group already in friction with W.A.A.S.S. which all themselves\* "Silence" if the situation warrants it.

The informal style and openness with which the M.O.T. specialists have conducted the meetings is an asset in achieving credibility in any public program, an especially apparent handicap to be overcome in governmental/public relationships. The openness and resourcefulness displayed by W.A.A.S.S. team members, however, must be provided to all interests as insignificant as may present themselves. The issue of noise is a prominent issue in the A.P.C.C. discussions up to this point, however other major themes will surface as system reduction stages are addressed.

Resources could have been provided to the citizens regarding, for example, recent innovative approaches and theories being practised in the planning field which might assist citizens in obtaining support for their cause. Since there are no hard and fast rules for planning, especially with the ramifications inherent in a major undertaking such as an airport, this could have provided the credibility needed in the planning process. Issues would have been adequately dealt with if a model was developed which provided for commitment from politicians, bureaucrats and citizens, each making their contributions explicit with their vested interests identified from the beginning.

A consultant who prepared a report for the W.A.A.S.S. on citizen participation, David Smith, agrees on the importance of capitalizing on citizen collaboration:

"Personally, I think it would have been both wise and expedient to involve the citizens in studies which directly impinge on their "concerns". One of the technical reasons for engaging citizens

\*'Silence' is a group of citizens who have banded together in an effort to present public opposition to the present site of the Winnipeg International Airport.

in planning exercises is that individuals and groups are the only persons in possession of the information needed in planning."<sup>31</sup>

Smith goes on further to say that by engaging citizens in the planning exercise the quality of information and credibility of the planning exercise is enhanced. This comment is especially true in Winnipeg where, according to Carvallo's report,<sup>32</sup> the community has a good relationship with the airport. Smith again raps the knuckles of the airport specialists when he suggests:

".....when the kind of information needed was precisely what citizens were in a good position to supply (and as I understand matters one of the participating citizen groups made overtures on this) the usual practice of having researchers gather the information was employed."<sup>33</sup>

The costs and benefits can only be legitimately compared in terms of an objective. The objective for the Master Plan of the W.A.A.S.S. is solely concerned with the airport's requirements. If the objectives of a study are of little value, or no value, for a community or any sectors within it, then the benefits and cost referring to the objectives are irrelevant for the community in question.

The significance of citizen input into the model is a major feature of the proposed model.

As is presented in the Discussion section of this thesis, the involvement of citizens in the planning process can take many forms; most of which defeat the purpose of including the input from citizens. One of the most successful tools adapted of late by planners, is sincerity. If this tool is used as a guiding strategy through the uncomfortable encounters there is very little doubt that the citizen collaboration technique will be unjustified. As stated simply by D. Godschalk:

"If planning effectiveness is measured in terms of improving opportunities for human activities and development, rather than solely in terms of efficiency of plan-making, then collaboration is justified."<sup>34</sup>

An advantage which Friend and Jessip have experienced by including participation of citizens as an essential component of their approach has been:

"In general the larger the number of actors in the policy system, the more it is to be expected that they will make specialized contributions to the three elements of problem identification, exploration of solutions and commitment to action within the decision process. Within governmental organization especially, it is usually regarded as important that actions which have significant external impacts should carry the formal authority of some publicly identifiable and accountable individual or group."<sup>35</sup>

They also indicate the credibility gap apparent in strategies which do not realize the potential of citizen participation. The depth of commitment to citizen participation will be related later in this section.

By including and incorporating any and all interest groups regardless of size or economic strength, one accommodates a holistic sense of community perspective. On the question of credibility in connection with decision-making Levin comments:

"...decisions...have immediate manifestations in that the decision act itself will be manifest to those who take part in it or are in attendance, while public announcements will consequently manifest the decision to a wider audience.

The key to this relationship lies in the fact that in forming a resolve upon action decision-makers become bound by their resolve; they incur what will be termed 'commitment' towards the intended subsequent and ultimate manifestations."<sup>36</sup>

The state of mind arising from a commitment regarding decision is one of expectation that some penalty will afflict the decision-maker or the group he belongs to, if he abandons his intention. It is this fear of penalty which is an incentive to persist in his intention, which must be capitalized on.

"An individual who communicates a private resolve to one other person who is bound to secrecy can amend his decision probably without suffering any great penalty. On the other hand, once his intention is made known to others, he is likely to feel that to alter it without the excuse of new information, or a change in external circumstances, will

lower his standing in the eyes of his colleagues and associates."<sup>37</sup>

How can one tell if and when his mind will change again? There is, therefore, not only a political stake. The idea of public accountability is an important feature of the proposed model since politicians incur commitment when their decisions reach the public and involve the public. This is the theory which gave birth to the model which provides for an efficiently incorporated public.

### 6.3. SUMMARY AND CONCLUSIONS

Man's finite intellectual capacities are a fact which cannot be pushed aside or avoided simply because science has been able to provide him with so much assistance in his quest for improving his lifestyle. The author, A. Etzioni, has dedicated much time to the subject of man's finite intellectual capacities. His comments regarding the reliance of man on technology are relevant to our purposes, although many authors have taken issue with this theme. Etzioni claims that:

"While technology, especially computers, does aid in the collection and processing of information, it cannot provide for the computation required by the rationalist model. (This holds true even for chess playing, let alone "real-life" decisions.)"<sup>38</sup>

Etzioni goes on further to describe the consequences the decision-makers must face if adhering to the canons of the rationalistic model, when he states the decision-maker will eventually become frustrated because of the magnitude of cognitive strain, exhaust his resources without coming to a decision, and remain without an effective decision-making model to guide him.

The model is described and used by many as a tool. This tool is an aid in reducing cognitive strain somewhat, since there is a basis of comparison from which to guide the decision-making process through areas of uncertainty, such as the level of competence that is to be expected before a decision can be made.

C. Linbloom suggests that there is much more controversy in plan-making than most decision-makers would have us believe. Lindbloom states quite convincingly that policy-makers invariably have to make policy in the face of an incomplete formulation of governing values, typically in the face of some significant disagreement on values.<sup>39</sup> How can the WAASS specialists wield any amount of power, in terms of getting their plan implemented with the least amount of intervention, in a political arena where actors are subject to an undeterminable amount of pressure from many directions? Hopefully, the proposed model will be an aid to planners in facing such questions. Lindbloom argues quite

emphatically the point that no one can complete or ever reach a high degree of comprehensiveness in the analysis of a complex policy issue, where consequences run on forever and where they also run off in a wide variety of directions.<sup>40</sup>

When applied to the practical situation encountered by WAASS specialists in our case study, one can anticipate the consequences of the decisions made by the specialists or consultants, if they are not entirely familiar with the uncertainty and scope involved in decisions made by previous decision-makers, perhaps in preceeding studies. This concept impresses upon us the need to accommodate the different types of decision situations and the implications of these decisions on the planning process.

Decisions and actions, together, comprise the overall decision-making process and should be divided into technical, administrative and political categories. Criteria for present decision-making situations are built upon past decisions and the commitment to those decisions in light of more up to date information.

The proposed model operates within the parameters of the General Learning Approach to decision-making which is responsive to new information and the need to re-assess past decisions.

What alternatives do we as planners attach significance to, and enter into evaluative schemes for, and what are the alternatives which best accommodate the pursuit for improving opportunities for human activities and development? By what and whose values should we measure the efficiency of plan-making which reduces the cost and availability of resources?

The magnitude of uncertainty which accompanies major decisions must be dealt with through the choice of alternatives to be considered. The planner himself has an impossible task before him in trying to accommodate the dynamics of planning with archaic tools which have been modified and stretched to their limit from their original design. How can he hope to relate broad policy problems to his fellow workers with whom agreement is few and far between, yet alone the decision-maker is bogged down in day to day problems which he must muddle through? The decision-makers who deliberate on such broad policy matters are quite

removed from many of the implications of the various alternatives to the point where they have difficulty in recognizing their client. To what ends can one defend a rational planning process which renders the procurers impotent regarding the implementation of their product!

An unwarranted amount of uncertainty is faced in the WAASS Model, which is the product of the inability of the team members to deal in an appropriate manner with the component referred to as the Government. The same is true for the public component of their model. If these areas of uncertainty were dealt with in a more responsive way the WAASS team would be faced with a lesser amount of controversy from fewer critics.

The political process was not dealt with in the most productive manner comparable to the significance this component exerts on the overall model. This is unfortunate in light of the kind of plan the study has the potential to produce. The WAASS specialists displayed an attitude of indifference in relations where manipulation prevailed, perhaps because of their lack of power to do anything else. (This was discussed in preceding chapters.) If a proposal for a new study, or one already incorporated as a vital part of their methodology, is not approved by the political 'bosses', they have no recourse. If the political overtures become as hot as experienced at Toronto over Pickering, the planners will have fallen into the same uncomfortable position without having learned anything from past mistakes.

1. See Forward in R. Sarly; The Planning Process, University College London, 1972.
2. R. MACK, Planning on Uncertainty, Wiley-Interscience, New York, 1971, p. 11.
3. R. NELSON "The Link Between Science and Invention, The Rate and Directions of Inventive Activity; R. Nelson, Editor, p. 566.
4. P. H. LEVIN, "On Decisions and Decision-Making", in Journal of the Royal Institute of Public Administration, V50, Spring, 1972-1973, p. 27.
5. P. H. LEVIN, *Ibid*, p. 26.
6. P. H. LEVIN, *Ibid*, p. 27.
7. P. H. LEVIN, *Ibid*, p. 28.
8. P. H. LEVIN, *Ibid*, p. 31.
9. S. BUDDEN and J. ERNST, The Movable Airport, Hakkert, Toronto, 1973, p. 160.
10. T. SHILLINGTON, "City May Co-operate" The Winnipeg Tribune, Nov. 5, Friday, 1976, p. 1.
11. T. SHILLINGTON, *Ibid*, p. 1.
12. S. BUDDEN and J. ERNST, *op. cit.*, p. 3.
13. S. BUDDEN and J. ERNST, *op. cit.*, p. 162.
14. S. BUDDEN and J. ERNST, *op. cit.*, p. 161.
15. S. BUDDEN and J. ERNST, *op. cit.*, p. 162.
16. P. H. LEVIN, *op. cit.*, p. 30.
17. G. BENEVISTE, The Politics of Expertise, The Glendessary Press, Berkeley, California, 1972, p. 36.
18. G. BENEVISTE, *Ibid*, p. 36.
19. G. BENEVISTE, *Ibid*, p. 37.
20. G. BENEVISTE, *Ibid*, p. 53.
21. MARRIS and REIN, Dilemmas of Social Reform, New York, Atherton Press, 1969, pp. 164-165.
22. M. MEYERSON and E. BANFIELD in Lindbloom and Braybrooke, Strategy of Decision, Free Press, New York, p. 47.
23. W.A.A.S.S. Study Design/Project Work Plan, Ministry of Transport, March, 1975, p. 8.01.
24. W.A.A.S.S. "Public Participation", Ministry of Transport, March, 1976, Paper #45.
25. D. GODSCHALK, "The Circle of Urban Participation", in H. W. Eldredge, Taming Megalopolis, Doubleday and Company, Inc., Garden City, New York, 1967, p. 978.

## CHAPTER VI FOOTNOTES

26. MORRIS HILL, "A Goals-Achievement Matrix for Evaluating Alternative Plans" Journal of the American Institute of Planners, Vol. 34, No. 1, January, 1968, p. 185.
27. M. HILL, *Ibid*, p. 186.
28. N. C. NWANERI, "Equity in Cost-Benefit Analysis", Journal of Transport Economics and Policy, Sept., 1970, p. 236.
29. M. HILL, *op. cit.*, p. 187.
30. M. HILL, *op. cit.*, p. 187.
31. DAVID SMITH, "Reports and Suggestions of the Public Program Associated With the Winnipeg Area Airports System" Paper No. 45, March, 1976, p. 6.
32. M. CARVALLO, et. al., Community Concerns, Transport Canada, W.A.A.S.S., 1976.
33. D. SMITH, *op. cit.*, p. 9.
34. D. GODSCHALK, *op. cit.*, p. 979.
35. J. FRIEND and W. JESSIP, "Local Government and Statagic Choice", Tavistock Publications, London, 1969, p. 27.
36. P. H. LEVIN, *op. cit.*, p. 24.
37. P. H. LEVIN, *op. cit.*, p. 27.
38. A. ETZIONI, *op. cit.*, p. 353.
39. C. LINDBLOOM, The Intelligence of Democracy, The Free Press, New York, Collier-MacMillan, Ltd., London, 1965, p. 138.
40. C. LINDBLOOM, *Ibid*, p. 138.

## CHAPTER VII

### DISCUSSION & CONCLUSIONS

## DISCUSSION & CONCLUSIONS

A case study of the Winnipeg Area Airports System Study was examined to contrast a real world planning situation with the prominent theories in the literature. The case study of the W.A.A.S.S. was useful in identifying the limitations of current approaches and the changing attitudes of the Ministry of Transport.

The W.A.A.S.S. is one of the largest studies undertaken at a Canadian airport and is certainly the most recent. One reason for the extended size of the project is an expressed desire by the Ministry of Transport to come to grips with the softer, intangible elements of airport planning where the Ministry admits there has been a void.

The direction for future airport planning models was clarified through the examination of the planning process developed by R. Sarly. The criticisms of the Sarly models were helpful in the following areas:

- 1) They provided valuable insight into areas of uncertainty and where to expect bottle necks to occur. They also gave the planner some indication of what strategies to employ to overcome these difficulties.
- 2) A structured planning process was delineated whereby a comparison between the unstructured and structured approach in the future will give direction and/or guide the unfamiliar model components through the planning process.
- 3) The W.A.A.S.S. "fit" was established.

The advantages of adopting one approach to decision making as opposed to another were discussed. The General Learning Model Approach was selected as being the most appropriate. The approach was described as following a strategy in which the discovery of new ideas and alternatives occur, and are integrated into the design of the project, frequently throughout the planning process.

A new model was presented which operated within the bounds of the General Learning Model Approach. The new model will hopefully provide future direction to model builders in the field of airport planning. The advantages of adopting the proposed model were outlined. A criticism of the proposed model was foreseen in the area of project duration.

Invariably when the public is included in a process which is meaningful the time frame must be expanded. Establishing and maintaining communication links between the informed and uninformed is time consuming and cannot be avoided. One must however assess the costs in perspective. The process advocated ensures the system is moving in the direction of improvement rather than deterioration. The solution is more than cosmetic and is a learning experience in itself for all involved.

The proposed model introduced improvements in four areas:

- (i) The decentralization of control where the information flow was from the top-to-bottom, bottom-to-top;
- (ii) An effective public consultation program which saw the introduction of the novel Social Animator/Planner;
- (iii) An approach to decision-making which provided for the re-assessment of study objectives as the learning process

- ensued and subsisted upon commitments from many facets in the planning realm;
- (iv) the evaluation process.

The introduction of a new actor into the airport planning process presented perhaps the most exciting yet potential area for improvement the author was able to advance. The Social Animator/Planner is responsible for effective and meaningful involvement between all interested in airport planning. Through the efforts of the Social Animator/Planner the decision-making approach advocated will ultimately be substantiated as being the most efficient approach.

The proposed model presents a planning process in which evaluation is not isolated from the decision-makers. The decision-makers are introduced at many stages throughout the planning process. Commitments are forthcoming from decision-makers at many stages. The commitments are categorized for later examination and updating in order to accommodate any unforeseen changes which are regarded as improvements, according to new evidence. The practical experience of decision-makers involved throughout the planning process ensures they are well-informed when fundamental decisions are evaluated.

The Public Participation/Consultation program received strong emphasis throughout the thesis. The author has chosen to discuss some of the inherent difficulties of achieving a meaningful citizen participation program.

According to Saul Alinsky, the object of forming a people's organizational framework are:

"They get to know each other's point of view, they reach compromises on many of their differences, they learn that many opinions which they entertained solely as their own are shared by others, and they discover that many of their problems, which they had thought of only as "their" problems are common to all. Out of this interplay emerges a common agreement, and that is the people's program."<sup>1</sup>

The second objective is to use the solidarity generated with its consensus on a program, as a power base from which a fight for the program can be mounted.

Mr. J. Dyckman in "Societal Goals and Planned Societies" follows through the belated recognition of the need for planners; efficiently relating social policies to social programs and describing adequately the futile situation encountered by planners.

Pure and simply, planned society has been in the wrong hands. He points, as does Darke, to the welfare system as a 'device to compensate for the wastage and breakage in a competitive, individual serving, industrial society'. He presents a good argument for the rational behind the need for a change in the present system, which is almost endemic in North America today, particularly Canada. Our authoritarian bureaucrats have failed us! Dyckman is in favour of setting up however, yet another hierarchy to develop some sort of social planning framework in which to evaluate the social consequences of individual programs; or of means and courses of action. The 'planner grandiose' is a relic of the past which seems to intimidate Dyckman.

Client analysis Dyckman concludes, saves the inarticulate disadvantaged from a temporary ignorance of their own best interests in

order that they can more effectively express those interests over time. He would spend the client's resources on interests which Dyckman knows they need - or should need.

The antithesis of this is merely the substitution of market research for the operations of the market. Dyckman does recognize, however, that there are individuals who will not meet their own needs, others who cannot and still those who don't know how. Would the clientele more readily succumb to an audience of peers to express dissatisfaction or satisfaction, rather than the professional bureaucrats?

Dyckman talks of the role of the social planner in terms of being a caretaker and describes this 'caretaker' image more in terms of an overseer, which is not all that different from the role government has been assuming for decades. Social planners are not from the same school of thought as social workers which he seems to classify together; although there are many similarities inherent in both.

What Dyckman fails to take into consideration is that planning decisions are subjected to the whims of the political arena.

Edmund M. Burke describes the decision-making arena as something to be left up to the whim of the professionals, who surely must know what is best - look what they have accomplished! He views citizen participation as "an educational or thereapeutical tool for changing attitudes..... a means for assisting an organization to define its goals and objectives."<sup>2</sup> Burke begins his discussion of citizen participation with a rather weak delineation of how he proclaims participation should be approached. The corollary to our democratic heritage, that citizens should share in decisions affecting their destiny because anything less is a betrayal of our tradition, seems an unnecessary deliberation on his part with undue precedence being given to appear unprovocative. There is no

flare whatsoever to his concepts. His is the voice of the bourgeoisie prophet saying give them tokenism now, before they take everything sacred. Burke's intention appears to be in search of the lost chord which brings harmony between citizen participation and citizen control. He feels in the long run "the experts jealous of their own perogatives, may be unwilling to admit non-professionals into the decision-making arena"<sup>3</sup> so why bother? There is reference to some sort of dilemma as he sees it "the demand for both participatory democracy and expertise in decision-making." It is impossible he feels to maximize both value preferences, citizen and professional. He suggests citizens can, however, be used as instruments for the attainment of specific needs.

Hopefully it would be obvious by now that attitudes change in relation to facts and progress made. It would appear Burke has confused citizen participation with gaming which is somewhat of an educational tool for changing attitudes. Burke does indicate that participants learn about democracy and to appreciate cooperation as a problem solving method. One can visualize how the process of integration is abandoned as the demands of achieving specific tasks arise; but is participation merely a learning process for Burke? A learning process implies some ultimate goal to be achieved, it is not something that is an end in itself. Burke asserts the relevancy of a strategy depends both upon an organization's ability to fulfill the requirements necessary for the strategy's effectiveness and upon the adaptability of the strategy to an organizational environment.

Burke has some viable comments on citizen participation, but there is a growing awareness that 'increasing independence' is merely a starting point of a very commendable theme. Universal acceptance of the theme is one lesser plateau on the greater hierarchial scheme of govern-

mental de-centralization Burke seemingly misses. How long can the partisan's interest be maintained at a beneficiary level? Inevitably with no substantial feedback, he will feel indignant with the fruitlessness of his task. Reinforcement during the decision implementation at the grass-roots level with professionals functioning in somewhat of a resource capacity can prove to be very fruitful. The aftermath conceivably would be the revamping and revitalization of the planning process into tangible policies. Burke places too much emphasis on the "inability to accommodate strategy to organizational demands". The real problem of integrating planning with citizen participation is not only as Burke submits how to include all members of a system in a community planning project process but how to stimulate and maintain interested members in the process.

The dire need for resources of various kinds is not lightly tread upon, it is quite prevalent. The need to turn to the grass roots of society for innovation, although a torch being passed by many administrative officials throughout North America, has been supplied with no funding for the fuel. The changing attitude of the Ministry of Transport is a move in the right direction. The proposed model is a means of achieving ends which are substantial improvements rather than the cosmetic inevitable.

#### Chapter Footnotes

- 1) Saul Alinsky, John L. Lewis An Unauthorized Biography, New York: Putnam's Sons, 1949, p. 379.
- 2) E. BURKE "Citizen Participation Strategies" JAIP, Vol. XXXIV, Sept., 1968. p. 351
- 3) Ibid p. 352

## BIBLIOGRAPHY

1. ACKOFF, RUSSEL L., Scientific Method: Optimizing Applied Research Decisions, John Wiley & Sons Inc., New York, London, 1962
2. ALINSKY, S., John L. Lewis - Unauthorized Biography New York: Putman & Sons, 1949.
3. ARNSTEIN, S., "A Ladder of Citizen Participation. JAIP: Vol. XXXV, No. 4, July 1969.
4. AXWORTHY, L. & CASSIDY, J., "Unicity in Transition: The Future City Report #4; I. U. S. University of Winnipeg, 1974.
5. BENVENISTE, G., The Politics of Expertise. The Glendessary Press: Berkeley, California, 1972.
6. BOULDING, K., "A Strategy of Decision". American Sociological Review: Vol. 29, 1964.
7. BRAYBROOKE, D. & LINDBLOM, C., A Strategy of Decision. New York Free Press, 1963.
8. BUDDEN, S. & ERNST, J., The Movable Airport. Hakkert: Toronto, 1973.
9. BURKE, E., "Citizen Participation Strategies: JAIP; Vol. XXXIV, Sept. 1968.
10. DYCKMAN, J., "Planning and Decision Theory": JAIP; Vo. XXVI, 1961/
11. DYCKMAN, J., "Societal Goals and Planned Society: Taming Megalopolis, Vol. I, 1967.
12. ELDREDGE, H.W., Taming Megalopolis. Anchor Books: Double Day & Co. Inc., Garden City, New York, 1969.
13. ETZIONI, A., "Mixed Scanning: A Third Approach to Decision Making". Public Administration Review, December, 1968.
14. FRIEND, J. & JESSOP, P., Local Government and Strategic Choice. Tavistock Publications Ltd.: 11 New Fetter Lane, London, 1969.
15. FRIEND, J. & POWER, W. & YEWETT, C., Public Planning: The Incorporate Dimensions. Tavistock Publications Ltd.: 11 New Fetter Lane, London EC4. 1974.

16. GARRISON, W.L., "Urban Transportation Models in 1975", Taming Megalopolis, Vol I, Anchor Books: Doubleday & Co., New York, 1968.
17. GODSCHALK, D., "The Circle of Urban Participation" in H.W. Edredge, Taming Megalopolis, Doubleday & Co., New York, 1968.
18. HANSON, W., Metropolitan Planning and the New Comprehensiveness, J.A.I.P., Sept., 1968.
19. HILL, M., A Goals Achievement Matrix for Evaluating Alternative Plans:, J.A.I.P., Jan., 1968.
20. KUSTRA, R., "Economic Impact Studies Current Issues", Winnipeg Free Press; December 28, 1974.
21. LEVIN, P.H., "On Decisions and Decision-Making, in Journal of the Royal Institute of Public Administration. V50, Spring 1972-1973.
22. LICHFIELD, N., The Planning Process. University College: London; March, 1972.
23. LONG, N.E., "Public Policy and Administration" Public Administration Review, Vo. 14; 1954.
24. LOWRY, I., A Model of Metropolis. The Rand Corporation: Santa Monica, California, Memorandum RM 4035, August, 1964.
25. LOWRY, I., A Short Course in Model Design. The Rand Corporation: Santa Monica, California, J.A.I.P., Vol. XXXI, No. 2, May, 1965.
26. MACK, R., Planning on Uncertainty. Wiley - Interscience: New York, 1971.
27. MARRIS, H. & REIN, J., Dilemmas of Social Reform, New York, Atherton Press, 1969.
28. MATAS, R., "Taxpayers Find a New Weapon" Winnipeg Tribune, May 25, 1974.
29. MCGUIRE, M.C. & GARN, W., The Integration of Equity and Efficiency Criteria in Public Project Selection; Economic Journal; Dec., 1969.
30. MOGULOF, M., Citizen Participation-The Local Perspective, The Urban Institute: Washington, D.C., 1970.
31. NELSON, R., "The Link Between Science and Invention; The Rate and Directions of Inventive Activity, 1969.

32. NWANERI, C.,                   Equity in Cost-benefit Analysis: A Case Study of the Third London Airport: Journal of Transport Economics & Policy, Vol. IV, 1970.
33. O'DELL, D.,                   "The Structure of Metropolitan Political Systems" Western Political Quarterly, Vo. 26, No. 1, March, 73.
34. PASSOW, S.,                   "Stockholm's Planners Discover People Power", JAIP, Jan. 1973.
35. PRIEST & R. TURVEY,                   Cost-benefit Analysis: A Survey of Economic Theory: Resource Analysis; New York, St. Martins Press, 1966.
36. ROGERS, A.,                   A Markovian Policy Model of Interregional Migration. The Housing and Home Finance Agency: University of California, Berkley, 1971.
37. SARLY, R.,                   The Planning Process, Working Paper #5. School of Environment Studies: University College, London, March, 1972.
38. SCHIMPELLER, C. & GRECCO, W.,                   Systems Evaluation: An Approach Based on Community Structure & Values. Highways Research Record, #238; 1968.
39. SEALY, K.,                   Airport Planning and Strategy. Oxford University Press; 1976.
40. TORONTO AREA AIRPORTS PROJECT,                   New Toronto International Airport: Pickering Written Summary. Ministry of Transport: May, 1973.
41. TERNETTE, N.,                   "Rags to Riches"! Inland; Vol. I, No. 4, November, 1973.
42. UMA GROUP,                   "Building Sites A Prime Component of Housing", Winnipeg, November, 1973.
43. UNIVERSITY OF BRITISH COLUMBIA                   Airports Systems in the Lower Mainland Region; School of Community Regional Planning; May, 1971.
44. WICHERN, P.,                   "Winnipeg Unicity After Two Years" Dept. of Political Science, University of Manitoba, St. Paul's College; April, 1974.
45. WARD, C.,                   "It Won't Work Without Dweller Control" Town and Country Planning, June, 1974, V. 40.
46. WINNIPEG AREA AIRPORT SYSTEM STUDY,                   Study Design/Project Work Plan; Winnipeg, Manitoba, March, 1975.