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TOWARDS GLOBALIZATION IN THE 21ST CENTURY
(TREND ANALYSIS FOR CIVIL AVIATION)

SAEED A. F. AL-GHAMDI

A Thesis
in
The Special Individual Programme

Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Arts at
Concordia University
Montreal, Quebec, Canada

September 1993

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The time spent to conclude this work belongs to my wife, Hind and our beautiful children, Abdullah, Sarah and Ahmed. Thanks for your patience.
ABSTRACT

TOWARDS GLOBALIZATION IN THE 21ST CENTURY
(TREND ANALYSIS FOR CIVIL AVIATION)

SAEED AL-GHAMDI

The history of civil aviation shows a remarkable trend towards internationalization. During the past fifty years, this tendency has integrated many structures and functions of civil aviation which extend from nation state to regional organization. If this tendency persists it will bring about globalism in the sense of universally agreed upon strategic objectives and structures within the next fifty years. This thesis advances the case for regional bodies which will better serve the interests of nation states and enhance the process of decision-making at the global level. Such structures will make global solutions feasible and civil aviation issues more manageable. The improvement of the structures and harmonization of the functions of public policy in international civil aviation will accelerate this tendency of globalization.
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<td>African Civil Aviation Commission</td>
</tr>
<tr>
<td>ANC</td>
<td>Air Navigation Commission</td>
</tr>
<tr>
<td>ATC</td>
<td>Air Transport Committee</td>
</tr>
<tr>
<td>ATM</td>
<td>Air Transport Management</td>
</tr>
<tr>
<td>CITEJA</td>
<td>Comité International Technique d'Experts Juridique Aériens</td>
</tr>
<tr>
<td>CNS</td>
<td>Communication, Navigation and Surveillance</td>
</tr>
<tr>
<td>CP</td>
<td>Canadian Pacific Air</td>
</tr>
<tr>
<td>CRS</td>
<td>Computer Reservation System</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
</tr>
<tr>
<td>ECAC</td>
<td>European Civil Aviation Commission</td>
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<tr>
<td>EEC</td>
<td>European Economic Community</td>
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<td>EWA</td>
<td>Edward Warner Award</td>
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<td>FIR</td>
<td>Flight Information Region</td>
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<td>GUT</td>
<td>Grand Unified Theory</td>
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<td>IATA</td>
<td>International Air Transport Association</td>
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<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<tr>
<td>IGO</td>
<td>International Government Organization</td>
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<td>ITU</td>
<td>International Telecommunication Union</td>
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<td>JSC</td>
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<td>Scandinavian Air System</td>
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<td>TCC</td>
<td>Technical Co-operation Committee</td>
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<td>Unlawful Interference Committee</td>
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<td>UK</td>
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<td>UN</td>
<td>United Nations</td>
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CHAPTER 1

THEORY

1.1 INTRODUCTION

The air transport industry has evolved over the last 50 years from national utility to global necessity. Today the increased importance and wide acceptance of this mode of transport testify to the viability of travel by air. Recognizing such a degree of importance the world community has given due attention to the institutionalization of civil aviation at all levels.

Starting at the international level, the International Civil Aviation Organization (ICAO) was established in 1944, when 52 States responded to an invitation from the USA to convene in the city of Chicago where what became widely known as the Chicago Convention on International Civil Aviation Organization was born.* The primary objectives of the Convention were to promote peace and understanding among the nations and people of the world, and to provide for safe, efficient and regular air transport.

The concept of international air transport is built on the basis of equal opportunity for all states party to the Chicago Convention. The provisions were articulated with a world-view and long-term objectives in mind. The Convention

* All material related to international civil aviation used in the text of this study has been taken from Chicago Convention on International Civil Aviation Doc. 7000/3, 6th Edition 1980 and Memorandum of ICAO, 14th Edition 1990 (Montreal, Canada).
anticipated the importance of and the visible role for an industry which had gained valuable experience during World War II and projected the promise for a peaceful and prosperous world. The contribution stands unique among mankind's achievements.

When compared with other modes of transport, air transport is the safest, most economical and certainly the fastest. At present, a person can travel around the globe in one day. Facilitations for mass movements in holy seasons, when millions of people converge on holy shrines like Mecca, or the seasonal exodus of tourists from the northern hemisphere to the warmth of the south are frequent around the year. Neither the turbulent world economy nor geopolitical conflicts stop airplanes from flying or close airports for arrivals and departures. During natural disasters, civil airplanes stand ready to help in every possible way with the full cooperation of the world community. Regulations are designed to cater for such unfortunate occasions and to ensure adequate response in difficult times.

The common interest and its realization can, it is argued, best be enhanced within a regional framework. The experience of regions like the European Community (EC) is a clear indication of what can be accomplished through the collective approach which takes into consideration the interests of all its members when formulating regional or inter-regional policies. Sharing of boundaries and the mutual
exchange of benefits in every respect cannot but reduce the difficulties and increase the endowments for greater use by a larger number of people without the red tape of bureaucracy and any unnecessary formalities. The field of civil aviation is an ideal choice for intensive regional interaction and interdependency. The consensus over many areas, such as regulations, standards, uniform training, synergetic operational procedures and a common approach to safety, security and environmental regulations, depicts the ideal model for internationalism, cooperation and understanding. The evolution of these facts over the last fifty years bears witness to this.

Unlike other disciplines civil aviation has been and will continue to be the subject of wider and more profound acceptance by all the contracting states party to the Chicago Convention, its annexes and all other related international treaties. The reason for such acceptance is due to the nature of the services provided by this mode of transport. Safety is a key element in its operations. Users, providers and regulators have common interests in maintaining high safety standards. Development of standards and recommended practices (SARPs) in the safety areas are usually a matter of consensus. No country, operator or user would argue against the proliferation of sound safety standards. Accident investigation findings are immediately publicized with the prime objective of preventing the recurrence of such incidents. In the area
of unlawful interference, unanimity is taken for granted. Defects in design which result in loss of life or materials are of main concern to the manufacturers and the regulators alike. The question is not who is to blame, but how can the problem be solved to prevent recurrence?

Technically, there is hardly any area in the activities of humankind where caution and coordination are more crucial than in civil aviation. The cohesiveness of the people who work in the different fields of civil aviation is the key to these great achievements. From the first moment anyone becomes acquainted with the work in civil aviation, the dogmas of safety and security are ingrained in the mind and continuous emphasis makes them a fact of life. Safety means preventing malfunctions which might result in loss of lives and damage to materials. Henceforth the argument is how to optimize safe conduct, safe operations and, ultimately, safe journeys for passengers and crews. There is no room for chances to be taken: if one is not sure, one should ask until one has found the right answer. Sometimes, one must exercise judgement, but the people in these critical positions are well trained to do so. Pilot training is universally uniform and standardized. Equipment designs are extensively tested and authoritatively verified to ensure resilience under extreme environmental conditions. Thorough checks and clearly developed procedures are fundamental to all those who have to apply them, from pilot to flight attendant and, finally, to
ground staff who have to work in any safety-related job. These are all aspects of a consensus accepted worldwide. The reasons are obvious: safety means the same thing everywhere, especially in the air and in particular in the cockpit. This is why flight simulators were developed to ensure response capability through intensive simulation programs designed to eliminate the possibility of mistakes occurring where no alternative is available and the cost might have to be paid for in the most expensive currency (human life).

1.1.1 Thesis

Given the extensive nature of the complex of civil aviation and its primary involvement in human civilization, well-being, and quality of life, the present thesis explores civil aviation's background in the history and structure of the field of international aviation and applies a model for describing, explaining, and predicting the levels of inter-action and transition in the movement from nation state, through regional, to global interests and activities. Throughout the study, the functioning structure and planning capacities of the International Civil Aviation Organization (ICAO) are referred to as a concrete example.

The history of civil aviation shows a remarkable trend towards internationalization. During the past 50 years, this tendency has integrated many structures and functions of civil aviation which extend from nation state to regional organization. If this tendency persists it will bring about
globalism within the next 50 years. It is the thesis of this study that such development best serves the interest of humankind and should therefore be encouraged. Hence, the improvement of the structures and harmonization of the functions of international civil aviation public policy will accelerate this tendency of globalization.

1.1.2 Purpose

The purpose of this study is to assist as reference material for:

- Civil aviation authorities in planning and formulating policies.

- Specialized agencies and other institutions which may be concerned with policy formulations, strategic management, and development of air transport industry.

- Academic institutions which deal with air transport issues.

- Governmental and international technical institutions when establishing training, and assisting in upgrading new generations of civil aviation cadres.

1.1.3 Methodology

The study will proceed by first looking at the literature on intergovernmental organizations (IGO's) and civil aviation. On that basis the most suitable model will be selected to serve as a theoretical foundation for this study.
The main body of the thesis will apply the model through a systematic analysis of civil aviation dynamics, showing how the globalization trend proceeds from the national to the regional contexts.

An analytic model will be used to describe the present conditions, explain their historical antecedents and predict their probable outcome in relation to the thesis.

Finally, a policy evaluation and prescription will be suggested in order to promote the globalization trend of civil aviation.

1.1.4 Terminology

In this thesis, certain key terms are used with distinct and quite specific meanings. "Nationalism" refers to the dominance in the modern world of certain specific forms of state identity and governance based on the ideals of the European Enlightenment and exemplified by the definition of John Locke. "Regionalism," on the other hand, designates at once the older cultural and ethnic identity of neighbouring geographical areas and the contemporary awareness that an appeal to regional interests can often mitigate competition and antagonism among the nation states that make up a region. Regionalism thus stands in contrast to internationalism. As a description of policy planning and implementation sectors in the field of civil aviation, this thesis distinguishes between two overlapping kinds of regionalism: existing regionalism, consisting of the historically determined areas of the globe
and represented by the present seven regional offices of ICAO, on the one hand, and, on the other, emergent regionalism, representing the potential for developing stronger and more effective regional identities as a means towards coordinating the policies and practices within a region and between regions and the global organization. The concrete embodiments of these latter aspects of emergent regionalism are called here "regional bodies"; these have yet to come into being in the ideal sense this thesis calls for, but the regional offices of ICAO provide a good beginning or focal point for them. Finally, "globalism" refers to the ideal situation in which all the policies and activities of civil aviation are consensually agreed upon by the national and regional parties and effected through resolutions by the worldwide representational process. The very ideal of globalism itself should assure that decisions and procedures operate at the universal level and that particular divergences have been reconciled in the process. "Globalization" is the actual, historical tendency towards the ideal of globalism, just as the terms "nationalization" and "regionalization" can be used in a dynamic sense.
1.2 LITERATURE REVIEW

The intent of the following literature review is to map a number of ideas and models from social science literature and academic writing on international organization, generally, and civil aviation in particular. Some of the authors' ideas and models will be used as reference material. The literature is grouped under three sections. Section One deals with social science concepts and strategic management. Section Two deals with the literature on international organization ("The UN System"). Section Three deals with international civil aviation. At the end of this chapter, a conclusion will summarize the review in relation to the subject of the thesis and prepare for the following analytic chapter.

1.2.1 Social and Management Science

1.2.1.1 Paris J. Arnopoulos proposes in Sociophysics: Fundamentals of Macropolitics (Montreal 1991) a "Grand Unified Theory" which will overcome the fragmentation among disciplines. The triadic structures of his work are founded upon the hypothesis that "the principles of science are the same for all systems: human, social and natural" (Arnopoulos 1991:11). The dialectic-synergetic methodology Arnopoulos employs is useful in any structure which falls naturally into three levels. Since in the present study a number of tripartite divisions have been noted in the area of civil aviation and the ways in which they can be accommodated in future to a
global perspective, I have found Arropoulos' analysis to be especially cogent. In the light of Arropoulos' concern with the ethical implications of macropolitics, the movement towards globalization in the area of civil aviation is a positive analogue to Arropoulos' preoccupation with the development of "a world polity or cosmopolis" which will be able to save humanity from global catastrophe (Arropoulos 1991:276).

Fig. (1.1) represents, on the most general level, the structure of Arropoulos' methodology. In the Trialistic Model, humankind (Anthropos) is engaged in mutual reaction and interchange with nature (Physis) and culture (Polis). Every action of human beings upon nature affects both individual persons and civilization, just as natural catastrophes can impede and sometimes destroy centuries of human achievements. Shaped by nature and culture, human beings in turn shape nature and direct culture to their own ends, both collective and individual. The three-way cycle continues. The imbrication of Society and Humanity within nature, as well as the outward flow of effects from Humanity through Society to Nature, can be depicted as a series of concentric circles. In systemic terms, the movement here is from Egosystem through Sociosystem to Ecosystem; or, as we shall develop this scheme later, from national through regional to global perspectives.
ANTHROPOCENTRIC SPHERICAL PERSPECTIVE

TRIALISTIC MODEL

Fig. (1.1)

Adapted from Sociophysics by Aronowitz 1991: 7.
1.2.1.2 Particularizing Arnopulos' general scheme, we may turn to George S. Yip's *Total Global Strategy* (1992) which poses the following question in relation to global strategy in business: how global is industry and how global should its business be? This question is particularly applicable to civil aviation. Civil aviation as an international mode of transport has the basic ingredient for globalization. If it is international, therefore, it can be interregional. If it is interregional, then it has also the tendency for globalization. If it has the tendency for globalization, then it must possess global structures and global functions. When it is a global industry and a global institution, then it contributes to the global order. This rationale supports my thesis.

Yip also argues for four groups of "industry globalization drivers" - market, cost, governments and competition - which represent the industry conditions that determine the potential and need for competing, using a global strategy\(^{[11]}\).

Yip further argues that some industries have more globalization potential than others, while the potential changes as well. A common group of changes, increasing the globalization potential of many industries, is spurring the interest of managers in global strategy.

A global strategy takes an integrated approach across countries and regions.
Use of global strategy can achieve one or more of four major categories of potential globalization benefits (Tay 1992: 19-21).

- cost reduction
- improved quality of products
- enhanced customer preference
- increased competitive leverage

In terms of regional strategy as an intermediary means towards globalization, the agents and factors depicted in Fig. (1.2) should all be taken into account.

![Diagram](image)

**Actors and Institutional Factors Affecting Regional Strategy.**

**Fig. (1.2)**
Institutional Structure comprises the political institutions and their relationship between different functions of government (legislative, executive and judiciary).

Political Process comprises the activities, such as the three functions of government (legislative, executive and judiciary) policy planning.

People comprises the human resources, society including the political leadership.

Culture comprises the values and rules that guide behaviour in society.

The progressive co-ordination of these factors in nation states and negotiation and consensus formation at the regional level can facilitate the movement towards globalization.

1.2.2 International Organizations

1.2.2.1 On the other hand, John G. Stoessinger in The Might of Nations (1990) reflects a) the building-block theory of regionalism and b) the contention that regional arrangements are necessarily antithetical to the principles of the United Nations Charter.

He concludes that the evidence shows that on many occasions the UN has been a second line of defence for regionalism and that sometimes regional arrangements have served as backstops for the world organization. Current events show, however, that there is ample room for both types of political order-building on the international scene.
1.2.2.2 As opposed to a potentially conflictual model, Bruce Russett and Harvey Starr in *World Politics: The Menu for Choice* (1992) set forth the hierarchy of their model of world politics. It consists of five levels in the following sequence from the bottom upwards: individual, government, society, international relations, and world system. By analysing the advantages and disadvantages at every level, the conclusion one can draw from the detailed analysis is that the ideal objective is a secure world system. Such a system should be based on the conscious collective thread of evolution running from the individual perspective to the global panorama.

The evidence presented by these two authors, in its entirety, supports the validity of arguments in favour of globalism. Globalism is difficult to achieve without a regional building-block to speed up the process and make the outcome manageable. The model depicts the hierarchy from the individual directly up to the world system (global structure). My proposed thesis starts from the nation state, moves to regionalism, and then to globalism.

This structure is more feasible in the air transport field, which is already characterized as a global phenomenon. The insights provided by the two authors' model in *World Politics* are useful material to strengthen one's appreciation of the dependence, independence and interdependence relationships which are the dominant features of modern societies.
This arrangement is due to communications, telecommunications and air transport which bring the world closer to the realization of the concept that "the world is a global village."

1.2.2.3 Ernst B. Haas in *When Knowledge is Power* (1990) presents three models of change in international organizations. The models are aimed at international organizations, but the theory is valid for adaptation for regional bodies, which are a form of international organization. The model of the core stages of organizational action or process is suitable for adaptation in the development of the theory of regionalism.

This model is based on the following criteria:

1) Demands are formulated by member states.

2) Demands are then filtered through an organization in three stages: a) agenda setting, b) bargaining, c) programming.

3) Organizational output.

The core stages are (1) demands, (2) agenda formation, (3) program, (4) output, and (5) experience with the results of the output, or outcome (Figure 1.3).
Haas also argues for the learning effected by continued epistemic communities which has always been struggling to break set habits. Habits, he argues, are neither totally banished nor impervious to new ways. But given the culturally heterogeneous world in which we live, how can we expect meanings and symbols to be shared sufficiently widely among nations so as to allow learning based on consensual knowledge to occur? He further argues that shared meanings do not and cannot sidestep the interests and values of political actors. Yet, values change in response to influences imposed by one culture on another, as during colonialism.

Haas also suggests that the assimilation of scientific data into social knowledge occurs in a transcultural manner. He proposes that assimilation can be seen as a way to sidestep the difficult process of changing organizational
routines, a way of weakening the prevalence of motivated error in decision-making. That is why it makes sense to look at international organizations as a forum for sharing thoughts and encouraging learning. Since those organizations are usually a component of regimes, any judgment of change or evolution must consider the vexing issue of when the clock starts. This is particularly important when we wish to distinguish between patterns of change that feature learning and patterns characterized by adaptation.

1.2.2.4 K.J. Holsti in the *Framework of Analysis for International Politics* (1992) argues that we have a global system because all political and social units of the world are interconnected. This assertion is more apparent in the air transport industry's structures, operations and policy formulations than elsewhere. Holsti's assertion supports the thesis that regionalism will bring about global structures which are more responsive to the needs of the world community, and other more sustainable developments with the increasing limitations of resources. Thus, Holsti shows the importance of the intergovernmental organizations (IGO's).

Today, there are 344 formal intergovernmental organizations (*Holsti* 1992: 58). With the offshoots of these groupings, as well as some organizational blending of intergovernmental and transnational characteristics, the number is more than 1100; their growth since 1940 is more than 94%. Regionalism will lead to consolidation of bilateral
agreements and reduce the burden of maintenance of these agreements by each state. This would stand in place of the single national approach and be similar to what the EC has been contemplating, since January 1993, in the field of air transport. Reduction in the number of the principal actors in global policies results in decrease in relationship, which makes consensus more attainable.

1.2.2.5 By surveying some fairly elementary theories of international relations, we can gain a sense of the kinds of complication that will be necessary in a progressive globalization model based upon emergent consensus. Daniel S. Papp in *Contemporary International Relations* (1991) states that the terms "state", "nation", and "nation state" are usually used interchangeably in discussions of international relations. Technically, however, these terms have different meanings. A state is a geographically bounded entity governed by a sovereign authority that has the ability to make laws, rules, and decisions, and to enforce those laws, rules, and decisions within its boundaries. A state is also a legal entity, recognized under international law as the fundamental decision-making unit of the international legal system. A nation is, on the other hand, as much a psychological fixation as anything else. Groupings of people who consider themselves to be ethnically, culturally, or linguistically related may thus be considered a nation(1.2.2.5 1991:26-27).

A nation state is an ethnic entity that defines its own interests and determines how to achieve them.
interests are called the national interest, and the methods and action it employs to attempt to achieve its national interests are called national policy.) Although national interest is variously defined, the collective advantages to a nation state are classified as national interest (Papp 1991: 36). Any policy that enhances a state's position is seen to be in the national interest. Improving a country's balance of trade, strengthening a country's industrial base, or guaranteeing a country's access to oil, natural gas, or other energy or nonfuel mineral resources may all be considered to be in its national interest.

Guaranteeing safe, efficient, regular air transport is in the interest of any nation state and in the global interest as well.

The augmentation of power is another method of defining national interest. Power is defined by Hans Morgenthau as anything that allows one state to establish and maintain influence over another. Any policy that enhances a state's power is therefore in its national interest (Papp 1991: 39).

1.2.2.6 Theodore A. Couloumbis and James H. Wolfe in Introduction to International Relations: Power and Justice (1990) pose two fundamental questions in regard to IGO's. National governments regulate the relations of their subjects and seek, ideally, to protect the integrity of each citizen. Nonetheless, through institutions and laws they tend to serve the needs and interests of the more powerful groups and individuals in the society. Similarly, international
organizations try to protect the integrity of their members by attempting to regulate their relations and to prevent them from engaging in armed conflict. Here, too, one could argue that powerful nation states probably serve their needs and interests through international institutions and laws better than weaker nation states do (Couloumbis & Wolfe 1990: 272).

Couloumbis and Wolfe argue that the most insightful critics of the security/conflict conception of international politics have been referred to as functionalists. Functionalism has been presented as an operative philosophy that would gradually lead to a peaceful, unified, and cooperative world. The functionalists begin their argument with the assumption that wars are the product of a crudely organized international system. This system, they maintain, is founded on suspicion and anarchy and considers war an accepted means of settling thorny international disputes (Couloumbis & Wolfe 1990: 297).

International organizations have generally been established in order to accomplish all or some of the following purposes:

1) Regulation of international relations primarily through techniques of peaceful settlement of disputes among nation states.

2) Minimizations or, at the least, control of international conflict and war.

3) Promotion of cooperative, developmental activities among nation states for the social and economic
benefit of certain regions or of humankind in general.


ICAO fits the definition of two of the above: general membership and limited purposes organization. It is a functional organization devoted specifically to the field of civil aviation and air transport.

As Morgenthau points out:

The concept of national interest is similar in two respects to the "great generalities" of the [American] Constitution, such as the general welfare and due process. It contains a residual meaning which is inherent in the concept itself, but beyond these minimum requirements its content can run the whole gamut of meanings that are logically compatible with it. That content is determined by the political traditions and the total cultural context within which a nation formulates its foreign policy (Coulombis & Wolfe 1990:103).

If a selection is to be made among social and economic sectors which fits Morgenthau's definition of national interest, air transport will rank on the top of the list.

It should be clear to us by now that decisions about the national interest are not a purely scientific or mathematical formulation that result in optimal advantages for a nation state. On the contrary, national-interest decisions appear to be products of conflicting wills, ambitions, motivations, needs and demands.

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The authors argue that concern with global interests will probably continue at the level of private national and international organizations and among well-meaning academic and business people, who are at times dismissed unfairly as utopians, do-gooders, and eggheads. Throughout history, necessity has been the mother of invention. Global problems such as nuclear war, ecological imbalance, depletion of resources, environmental pollution, and population growth call for the development of new institutions with global rather than national orientations.

1.2.2.7 Conclusions

The literature on international organizations which has been surveyed stresses the importance and validity of their existence. Since the beginning of the twentieth century the existence of international platforms of this nature under the umbrella of the UN has helped to develop and enhance communications and the exchange of data at all levels of human activities. The prospect for the future no doubt is forward looking, solidified by access to the advantages offered by new technologies and the means of propagation. Three prominent examples of IGO's with global features are ICAO, ITU, and UNESCO. ICAO deals with international air routes in civil aviation, through the use of computer reservation systems (CRS) to facilitate movements of passengers and goods. ITU is responsible for the full range of telecommunications data from voice transmission to image display. The interconnection
among academic libraries and cultural centres within the
framework of UNESCO transcends the civic boundaries of cities,
states, and countries to communicate with regions worldwide.
These IGO's all have great potential to advance globalism.

In the model which this thesis proposes, regionalism
serves as an intermediary between internationalism, taken as
the potentially conflictual situation resulting from the
balancing of power among nation states, on the one hand, and
a pre-emptive globalism which would merely be an interna-
tionalism in disguise, on the other. In this dialectically
motivated scheme, regional bodies would act as buffers
preserving the positive elements of the identity of their
constituent nation states while mitigating from the wider
perspective the negative aspects of nationalistic self-
interest and power struggle. The co-ordinated regional bodies
would then serve as clearing houses for global challenges.

1.2.3  Civil Aviation

1.2.3.1 Thomas Buergenthal in Law-Making in the Inter-
national Civil Aviation Organization (1969) calls attention to
the single most important conclusion that has emerged from his
study: "ICAO's unusual capacity for adapting its constitutive
instrument to the demands which have been made on it over the
two decades of its existence" (223).

ICAO's experience indicates that the charter of an
international organization is potentially no less capable of
evolution than is a national constitution. This evolution,
whether it occurs on the domestic or international plane, presupposes a level of institutional maturity whose basic ingredient is the existence of a broad consensus regarding the ultimate aims or functions of the particular constitutional system. By cultivating this consensus ICAO has attained a high degree of institutional stability. It would be difficult for ICAO not to adopt or evolve legal rules in a manner that is calculated to advance the long-range goals of the Organization.

The transformation which the Convention has undergone has been achieved by a gradual process in which formal legal rulings have been rare. This is not to say that constitutional objections are not accorded the hearing they deserve, or that considerations of legality have not influenced the resolution of legal problems. The contrary is probably true, because ICAO's institutional stability is sustained in large measure by the confidence that the Contracting States have in the manner in which the Organization exercises its powers. The Organization has therefore taken great care to explore and to take account of the legal and constitutional ramifications of a given problem before deciding on how to resolve it. (See Appendix I.)

ICAO avoids formal legal rulings, probably because they could force decisions that might be unacceptable to some states for political or economic reasons. Since the decision-making process of ICAO, and consequently its law-making
process, is generally based on obtaining compromise solutions, law is used primarily as an instrument to legitimate action or to encourage compromise. If law were used to compel action not acceptable to many states, it would lose much of its legitimizing and persuasive influence. When an international organization succeeds, as ICAO has done, in developing a decision-making process in which law does perform an important function, it has in effect created a viable constitutional framework for the accommodation of competing economic or political claims.

ICAO has demonstrated considerable genius for preserving and evolving a legal order which is particularly well-suited for an organization whose tasks are many and complex, but whose powers are extremely limited. The relative success of its law-making techniques demonstrates that it is by no means impossible for an organization of 180 states to make considerable progress in regulating the conduct of governments.

Based on my personal observations over the last five years as a member of the council of ICAO, I believe the above assessment is still valid after nearly 50 years of ICAO existence (1944-1993).

1.2.3.2 Jesse J. Friedman in *A New Air Transport Policy for the North Atlantic* (1976) emphasizes the importance of meeting the unavoidable political realities of the situation, of blending control and competition in a practical regulatory
design, and of accommodating the proper interests of the scheduled and the supplemental segments of the industry and of the general public. Stressing above all the importance of focusing on the right objectives: more efficient use of airline resources and an economic level and structure of fares, he continues by arguing that the most glaring defect of the system of regulation now governing air transport in the North Atlantic is that it is not geared to the great changes which have transformed the market and the industry over the past ten to fifteen years (1960-1976).

The economic problems of air transport in the North Atlantic arise from forces which cut across the entire market and affect all segments of the industry. Only an all-encompassing regulatory approach can cope with such problems. Capacity and price, as every economist knows, are in continual interaction with each other, and a total attack upon the economic ills of the industry must therefore comprehend both (Friedman 1976: 135).

Capacity, in turn, cannot be only partially controlled. Controlling scheduled capacity would save resources and reduce costs, but it cannot be effective if charter capacity, with which it competes, is permitted to proliferate without restraint. On the other hand, controlling scheduled capacity requires measures to assure that the capacity released is not used in a way that contributes to capacity excess in charter service. Regulation permitting the
consolidation of scheduled and charter services on scheduled flights in order to put otherwise wasted capacity to efficient use demands concomitant regulation to make sure that the charter market is not swamped by this added source of charter capacity. Regardless of where the circle begins, it must be followed completely around the problems it seeks to cure.

Similarly with respect to price, remedial measures, to be effective, must deal with the whole syndrome of problems which need attention. Rules of efficient pricing call for the scheduled airlines to respond to consumer demand and to competitive charter service by offering discount-promotional fares at any margin above incremental cost, but the requirements of healthy competition necessitate a further rule that such fares shall be no lower than necessary to meet the charter competition at a point of equilibrium. An analogous differential may well be in order between fares for charter passengers when carried on scheduled flights and fares for charter passengers moving on regular charter flights. As for the inconsistency which now prevails with regard to regulation of rates for scheduled and charter services, it would be no less valid to control charter fares and ignore discount-promotional fares than to do the reverse, as in the present regulatory scheme. So long as low-price scheduled and charter services are in direct competition, both types of fares must be controlled, and in a way that gives supplemental as well as scheduled carriers a voice in the establishment of both.
Present regulatory policies do not come to grips with the real, basic causes of the economic plight of the industry. The choice in the North Atlantic is not between regulation or no regulation, but the need for adequate essential regulations. For reasons discussed elsewhere in this study, abandonment of regulation there, or in international air transport generally, is politically out of the question. The only choice is between effective and ineffective regulation.

Regulatory policy is generally the prerogative of governments rather than of airlines. Governments have the ultimate authority as well as the ultimate responsibility for leadership in the implementation of the relevant rules and regulations. But the airlines also have an obligation to advise, initiate, and press for changes in regulatory policy which can revitalize North Atlantic air transportation in a manner which would serve the public and is beneficial to both scheduled and supplemental sectors of the industry.

The North Atlantic system lies at the crucial centre of world air transport. Almost one-third of all international air travel is covered by that system. The economic ills to which international air transport is particularly susceptible take their most virulent form in the North Atlantic. But many of the same debilitating factors which have made the North Atlantic an economic disaster area are already at work in other major areas. The measures proposed in this study can
serve to restore the sick North Atlantic system to economic vitality; and in doing so, it might help to prevent the repetition of the North Atlantic experience elsewhere (Friedman 1976: 147).

The above comments were made before the "Deregulation Act of 1978" and the "Liberalization" practices by the EC and others. Surprisingly, the same arguments are still valid after nearly two decades (1976 - 1993).

1.2.3.3 Stephen Wheatcroft in his book on Air Transport Policy (1964) states: "The concept of sovereign rights in the airspace above the territory of each state is as old as air transport and was enshrined in international air law when the Paris Convention was signed in 1919. Article I of the Chicago Convention likewise recognises 'that every State has complete and exclusive sovereignty over the airspace above its territory.' In our new space-age it has become a subject of fascinating disputation amongst lawyers to question how far upwards airspace extends" (Wheatcroft 1964, 62).

This statement is still valid today.

1.2.3.4 Conclusions

From the previous Literature Review one may identify the factors which have been contributing to the phenomenon of globalization, particularly in the field of civil aviation during the last fifty years. These factors are summarized as follows.
A. **Social and Management Science**

The universality and interdependence of world dominant issues, such as economy, population growth and depletion of natural resources, necessitate closer cooperation to optimize the use of resources and minimize conflicts of interests. National development and standard-of-living parameters of one nation depend on what takes place in another. The call is for a global management approach to modern societies' problems. Strategies have to be designed on a global basis to effect change and produce viable results.

B. **International Organizations**

With the UN at the helm of IGO's one can say that such structures have indeed enhanced the state of the world by promoting peace and closer cooperation among people and nations. They exist to provide for the needs of world communities, each specializing in a certain sector of human endeavour and, moreover, they encourage developments, provide assistance and harmonize standard practices.

The ability of IGOs to approach, analyse, and propose solutions to problems and issues that transcend national boundaries is in most cases unequalled by any other international actor. Indeed, in the eyes of many, it is unfortunate that IGO's do not have more resources at their disposal so that they may better cope with the problems and issues that they face.

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As in so many aspects of international affairs, then, the answer to the question of whether IGO's are a force for improvement in the global community is open to debate. What is not open to debate is that IGO's, although more powerful, influential, and numerous today than they have been in the past, are still subordinate to nation states as actors in the international arena.

The success of IGO's since the Second World War stems from the fact that although they served as a forum aimed at moving from the national to the supernaternal context, they have been careful to emphasize the importance of the sovereignty of their members. Article I of the Chicago Convention is vividly clear on this issue, "The contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory". 

C. Civil Aviation

Keyword searches have revealed that academic studies in international civil aviation are very limited, although the air transport industry has established itself as one of the pillars of modern society. The focus has been on the legal aspects, where numerous academic studies have been made (see Appendix I). However, the dynamics of this discipline of human endeavour have not gone unnoticed by economic and policy analysts, but unfortunately very little has been done in the context of the social sciences. My thesis will be an addition to the academic literature on international civil aviation.
The study will be a modest contribution to the academic analysis, with a future-oriented projection to advance strategic management and policy formulation in the field of international civil aviation. It will also focus on the issue of air space sovereignty in light of new satellite technologies and their application to future air navigation systems.
1.3 MODEL

Based on the conclusions of the survey of the literature, this section utilizes the information and knowledge obtained to build the theoretical model which will be applied in this study.

1.3.1 Conceptual Framework

Introduction: The theme of this study is globalization in international civil aviation and how it can be achieved through regional structures or bodies (institutions). Globalization is the tendency towards universal co-ordination and implementation when used in the context of international civil aviation. It takes an integrated approach across countries and regions. It involves organizational structures, management processes, human resources and cultural behaviour. These are fundamental elements in the field of civil aviation, and the process of globalization is built around the interplay of these elements. States are the global partners: airlines, airport authorities and telecommunications entities are the global providers; the citizens of the world are the global users. The collective, integrated interaction of politics, economies and societies defines the parameters of globalization.

The literature review from the social sciences has centred on the role of IGO's in international relations. The evolution of structures and functions of civil aviation in the last fifty years has been one of the fundamental means of
relations between states and regions. The Chicago Convention is the cornerstone of the legal regulation of international civil aviation, as well as the basic constitutional instrument by which an international governmental organization functions.

This leads to the core of our thesis, the purpose of which is to exploit the globalization tendency to enhance the cooperative and mutual interests of nation states. The literature reviewed provides some evidence to support the thesis through the models available in the work of other authors. Although all the models and methods of analysis reviewed provide useful insights to support the thesis, none of them provides the perfect answer. The model I am developing will be based on GST (general systems theory). Accordingly the world is seen as a system composed of various actors and their interrelationships. Its structure consists of three levels: 1) national, 2) regional, and 3) global. (See "Terminology" 1.1.4, pp. 7-8, and Fig. 1.4.)

These levels on the geographic dimension correspond to three functional aspects: economic, social and political. Both geographic levels and functional aspects subsist within historical time - past, present, and future - and may hence be subjected to a related method of analysis that is here called diagnosis (present), anagnosis (past), prognosis (future). For purposes of the present study, the focus will be on the civil aviation sector of present day nation states.
SYSTEMIC MODEL

Fig. (1.4)

3 Dimensions

Geographic : 1) Levels : National - Regional - Global
* Focus : Civil Aviation Sector

Functional : 2) Aspects : Economic - Social - Political

Historical : 3) Time : Past - Present - Future

Method : 4) Analysis : Diagnosis-Anagnosis-Prognosis

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The social analysis will adopt a composite model to benefit from the available literature and narrow the focus on civil aviation (air transport) because of its importance in shaping the world economy, social and political affairs.

The globalism hypothesis will be developed using social science models and empirical methodology. The focus will be on constructing a regional model to support the thesis. Globalism is an expression used to project the tendency that one day the world will be interconnected and integrated. The actualization of such a concept will not be achieved by a single policy decision or number of policy statements undertaken by an international organization or a group of states or regional arrangements in a political forum. It is a complex concept which has never been fully experienced by humankind. There is no institutional framework which can be applied to it or legal codification in which it can be realized. Globalism will require a MACRO approach encompassing many endeavours with concrete strategies to define philosophies, mission statements, and vigorous plans for implementation.

Under UN auspices numerous international institutions have been created. The creation of specialized UN agencies: UNESCO, IMU, WHO, ITU (IGO), IO, etc., and the recognition of the regional bodies demonstrate the need and the willingness of the world community for closer cooperation. However, there are some reservations on the part of some
states about an actual global structure, as in North/South conflicts. The existing institutions address themselves to promoting cooperation and understanding between the world communities. They exist specifically to regulate and harmonize the exchanges of benefits, through extensive coordinated efforts and diplomatic negotiations within the framework of international treaties and established principles. The second half of the 20th century has witnessed significant developments toward globalization, thus making the attainment of such a concept more feasible. However, apart from occasional references in political literature or rhetorical statements, the focus on globalism as world doctrine to be achieved has not been grasped. Perhaps politicians and academics await the collective maturity of mankind through the political processes of the UN, IGO's, regional bodies and other international organizations. Such maturity, of course, is a gradual evolutionary realization with no temporal or physical limits.

1.3.2 Structural Model

The world system model as it concerns the civil aviation structure may be pictured as a pyramid of three levels. The analysis starts with individuals and proceeds upward through certain steps to world system. It considers governmental decision-makers who in turn constantly try, insofar as possible, to shape and control the environments.
The model used by Bruce Russet and Harvey Starr distinguishes among various levels of analysis in search for explanations and understanding. The MACRO approach tells one story, explaining the influence of the outside factors, the MICRO approach accentuates understanding the significance of events from the point of view of people within the units (Russett & Starr 1992: 3-23).

Fig. (1.5) STRUCTURAL MODEL

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In conjunction with the model in Fig. (1.4), the model in Fig. (1.5) considers its basic unit as the nation state, which by definition is a geographically bounded entity governed by a central authority able to make and enforce laws, rules, and decisions within its boundaries. Groupings of people who consider themselves to be ethically, culturally, or linguistically related may thus be considered a nation.

In the model of Fig. (1.5) [see 2.1.2], the nation state becomes our MICRO unit of analysis, and regionalism becomes the MESO level since it exerts external influences over nation states. If we accept that relations between individuals based on their role in government and society are becoming increasingly interrelated and interdependent, this is the stage where the MICRO level takes the individual as its starting point (unit). Relationships between states in a region have also become increasingly interconnected and interdependent, with the nation state considered as its unit. As far as nation states are concerned, regional interaction is MACRO because it is an outside influence. But as far as the region is concerned the interactions are MESO, i.e., similar to the status of individuals within nation states (the unit is bigger). We must also recognize that some nation states are larger in critical mass than some regional groups put together (China, India, USA, CIS, Pakistan and Indonesia).
1.3.3 Systematic Algorithm

Paris J. Arnopoulos in Mediterranean 2000, Volume I (Athens 1992) presents a systematic study of the regional prospects in a global perspective. Arnopoulos argues that: "In order to systematize the study of the future, we must place it within the scope of scientific methodology." The outline presents the procedural aspects of the model showing the conversion process from theory to practice. The development of general systems theory and social methods promotes a better understanding of the structures and functions of society, as a result of which one can improve policy-making and ultimately take more effective action. Such a "transition from thinking to doing today can be rationalized by following a certain logical process. The process begins with a particular theory or paradigm on the basis of which some policy or plan of action is conceived and ends with a praxis or purposive action."

Arnopoulos uses the diagram on page 43 (Fig. [1.6]) to illustrate the layout and the mechanism of his model which will be the basis of analysis in Chapter 2 of this thesis. Arnopoulos's algorithm is designed to facilitate a "systematic study program" for any kind of analysis. While the ideal goal of complete "gnosis" (knowledge) is no doubt unattainable, the procedures illustrated in the diagram provide a way of systematically approaching and relating a number of complex phenomena along the temporal axis of past, present, and
future. Problems are first approached in their present situation, where they are symptomatically noted, observed, and described. This is the stage of "Diagnosis". Next, the stage of "Anagnosis" provides an aetiology and historical narrative that would account for the present situation. There the factors, values, and theories that have shaped the past and our understanding of it provide the tools for analytic scrutiny (rather as in the case of psychoanalysis). Likewise, propositions, values, and theories, whether inherited from the past or formulated in the present, can initiate and establish "trends" that point towards future developments which, depending upon the situation and eventuality, can be used to reject, ignore, or reform evolving structures. The "projection and extrapolation of future trends" is what Arnonpolous calls "Prognosis." All three aspects of the process of knowing flesh out the details of the phenomena to be investigated and coordinate the procedures of investigation.

This methodology is applicable to the field of civil aviation. We can clearly apply it to diagnose the present activities and analyze the past with the aid of the accumulated historical data. Based on our findings, we can prognose future prophecies and feasible projections to advance the case for globalization.
SYSTEMATIC STUDY PROGRAM

Fig. (1.6)

The structure of the diagram in Fig (1.6) will be applied to tackle the analysis in the three sections of Chapter 2 of our study, and this will, we hope, inspire a useful proposal in the concluding chapter and lead to the realization of our thesis.
CHAPTER 2

ANALYSIS

2.1 REGIONALISM: The Present Situation: Diagnosis

2.1.1 Introduction

The purpose of this chapter is to apply the framework model of Chapter 1 to the field of civil aviation. Structures and functions will be described to meet the needs of our three-stage theoretical model. The realization of such a model for each region of the world will produce the consolidated components of a manageable world system in a viable discipline, civil aviation, which has the capacity to demonstrate the feasibility of a global structure. By this we can achieve the transition from micro state authority components to a meso regional body component while preserving the interest of our basic decision-making units. This way we move from the particular to the general while maintaining the characteristics of the former in the framework of the latter.

The issue of regionalism is not a new one. Before the formation of the United Nations in 1945, it was recognized that regional bodies are stepping-stones to the world organization's successful functioning and further development. ICAO has always encouraged the formation of regional bodies. Furthermore, it has provided help to maintain the existence of those bodies with limited assistance. The formal organization of effective regional bodies, i.e. coordinating
fora that represent their constituents to global organizations and in turn mediate the directives of the latter to their members, remains at present somewhat inchoate and at the emergent stage. Regional policy should be built on the division of labour in international relations in the field of air transport between the regional bodies and ICAO.

2.1.2 Structural Model: Civil Aviation

"International civil aviation is a complex technical and economic activity which creates a wide spectrum of social relations transcending the jurisdictional field of many States. ... aviation employs the most advanced high technology and the planned future air navigation systems contemplate space-based satellite systems for aeronautical communications, navigation and surveillance. This complex activity requires effective international co-operation and an effective regulatory system safeguarding worldwide uniformity of rules, practices and procedures..."

The level of analysis will be in accordance with Fig. (1.5) which depicts a structural model of civil aviation. The hierarchy begins with the UN, ICAO, IGO's and IATA at the global level. At the regional level there are seven ICAO regional offices: Bangkok, Cairo, Dakar, Lima, Mexico City, Nairobi and Paris. It is the proposal of this thesis that extending out from these seven offices and organized as managerial entities there should be seven regional bodies capable of handling civil aviation affairs in a way similar to the European Community model of civil aviation. It is also important to note that the regional offices are directly linked to ICAO at the global level.

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ICAO from the beginning structured itself on the basis of the regional concept. There are regional plans to maintain rational management of air navigation facilities. Through regional offices and in accordance with regional plans, ICAO can claim credit for significant progress in the development of all the regions of the world as delineated by those plans. Perhaps more than with any other organization of the UN, this is one of the features which makes air transport unique and ICAO special. The benefits of regional bodies were recognized even before the creation of the UN. But their influence in solving world problems has been limited. In the field of air transport, differences can be greatly reduced through closer cooperation within a regional framework.

The third and last level of the model shows the actors involved at the national level. At this level, both domestic and international affairs are processed. States are accredited to the regional offices and are members of ICAO. It is also prudent for national airlines to become members of IATA. The regulation of the conduct of international affairs flows in a circuit from the national to the regional to the global level and vice versa.

2.1.3 Symptoms of the Present State of Civil Aviation.

Given the structure described in the above pyramidal model, it should be apparent that there are two crucial areas in communication and decision-making: at the macro level ICAO and at the meso level the regional offices. Since the latter
serve at present chiefly as a means of channelling information and instructions between the nation states that make up individual regions and the world headquarters of ICAO, we shall in this section examine briefly the administrative structure of ICAO.

2.1.3.1 The Structure of ICAO*

The International Civil Aviation Organization is made up of a general Assembly comprising all the contracting states (181 in 1993). Responsible to the Assembly and elected by it is a governing Council composed of 33 of the contracting states. The Council elects its own President. Advisory to the Council and providing most of its substantive work are 9 committees:

The Air Navigation Commission: Composed of 15 members appointed by the Council from nominations received from Contracting States.

The Air Transport Committee: Composed of members appointed by the Council from representatives of Council member states.

The Legal Committee: Established pursuant to Assembly Resolution A1-46 and open to membership by all Contracting States.

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* This information is adapted from HEARINGS ON ICAO Montreal, 1996.
The Committee on Joint Support of Air Navigation Services: Composed of not more than 11 and not fewer than 9 members elected by the Council from representatives of Council member states.

The Personnel Committee: Composed of not more than 15 and not fewer than 13 members elected by the Council from representatives of Council member states.

The Finance Committee: Composed of not more than 13 and not fewer than 9 members elected by the Council from representatives of Council member states.

The Committee on Unlawful Interference: Composed of 15 members elected by the Council from representatives of Council member states.

The Technical Co-operation Committee (TCC): Composed of 15 members elected by the Council from representatives of Council member states.

The Edward Warner Award Committee: Elected by the Council from representatives of Council member states.

As can be seen from this breakdown, there is, as might be expected, a concentration of interest on air navigation and transport. With the exception of the Legal and Unlawful Interference Committees, the other committees perform a largely bureaucratic or honorific function. (On the special status of ICAO in relation to international law, see Appendix I. Diagrams illustrating the structure of the Organization are on the following pages.)
FIG. (2.2) REPRESENTATIVE BODIES OF ICAO ORGANIZATIONAL CHART

ASSEMBLY
of all
Contracting States

COUNCIL
PRESIDENT
elected by Council

AIR NAVIGATION COMMISSION

AIR TRANSPORT COMMITTEE

LEGAL COMMITTEE

FINANCE COMMITTEE

TECHNICAL CO-OPERATION COMMITTEE

COMMITTEE ON JOINT SUPPORT OF AIR NAVIGATION SERVICES

COMMITTEE ON INTERNATIONAL INTERESTS

PERSONNEL COMMITTEE

EDWARD WARBURTON AWARD COMMITTEE

Source: Memorandum on ICAO, November 1951
FIG. (2.2) ICAO SECRETARIAT ORGANIZATIONAL CHART

SECRETARY GENERAL
appointed by the Council

AIR NAVIGATION BUREAU
TECHNICAL CO-OPERATION BUREAU
AIR TRANSPORT BUREAU
LEGAL BUREAU
BUREAU OF ADMINISTRATION AND SERVICES

Source: Memorandum on ICAO. Montreal, 1990
From this brief analysis it can be inferred that the concerns of ICAO and, to a certain extent, its structure are similar to those of its parent organization, the United Nations. It therefore possesses a rather large degree of international influence. On the other hand, as is the case in all IGO's, the upward flow of bureaucratic functions, i.e. the way in which power must always be directed to the top, and the consequent inefficiency, lack of self-direction, and hesitancy in relation to decision-making at the intermediate level (the regional offices) impede the global advantages that could be derived from concerted action. In a sense then, our pyramid is top-heavy. The development of self-defined regional bodies to advise the seven regional offices of ICAO is one way to remedy this imbalance.

2.1.4 The Concept of Regionalism

In the following paragraphs, the idea of regionalism will be discussed and analysed. Regionalism may be defined as a grouping of two or more states whose goal is the formation of a distinct political and/or negotiating entity. A regional arrangement is a voluntary association of sovereign states that have developed fairly elaborate organizational tools to forge between them bonds of unity.

Regionalism is based on the assumption that universalism is still premature and too ambitious while nationalism is outdated and dangerous. Since the time is not yet ripe for order-building on a global scale, regionalism is
useful as an essential stepping-stone. What is envisaged is the development of political unity within delimited geographic areas, which then could be used as building blocks in the construction of a future, worldwide political order. The classic statement of this idea, according to Stoessinger (1990: 305), was that of Clarence K. Streit, who, in his Union Now, proposed the unification of democratic states in order to form the nucleus for a future world government. Streit conceived of regionalism as a vital intermediate stage in an organic evolution toward the more ambitious goal of globalism. Other proponents of regionalism, however, have felt that in view of the continuing heterogeneity of the world, it makes little sense to speak of a world-wide political order. They insist that a universal framework of values and a global sense of community must be developed. The transitional stage of regionalism has been proposed as the most effective means to this end.

Regionalist thinkers have differed not only on goals but also on methods. Some have preferred the federal approach to order-building (Rueschemeyer and Stephens 1992, Rohter and Flanagan 1991). This approach has emphasized the necessity for participating states to yield parts of their sovereignty to a "supranational" body. The latter would have some of the powers of a new state and, therefore, its decisions would be binding on the member states. The federal approach has tended to concentrate especially on the legal instruments of order-building, such as
constitutions. Still other regionalists have advocated the functional method and pointed out the necessity for economic, social, and cultural cooperation as a prerequisite for political integration. The functionalists have tended to shy away from the formation of "supranational" organs and, instead, have encouraged the development of as many forms of intergovernmental collaboration as possible (Stoessinger 1960: 305).

The objective of globalism is to bring about an institutionalized world order. Since power alone is no reliable guide through the landscape of international politics in the quest for order, the concept of regionalism as a building block is a positive way forward (Stoessinger 1960: 406).

The tug-of-war between regionalists and globalists also has relevance to our thesis. Typically, regionalist thinkers conceive of globalism as either premature or altogether unworkable. Internationalists, on the other hand, have developed an image of regional arrangements as harmful roadblocks on the path to world order. Neither perception leaves room for what the record demonstrates: that frequently globalism has served as a second line of defence for regionalism and that regional arrangements have served as backstops for the world organization. Certainly, there is ample room for both types of political order-building on the world scene.

When regionalism is functionally and structurally institutionalized on the basis of the interest of the nation states which comprise it, it becomes more cohesive.
principles of the concept of regionalism as a building-block for a global structure are accepted, then some efforts should be made to implement it. Hence the call for strategies to achieve globalism requires the identification of a philosophy and the establishment of objectives with a plan for implementation.

The philosophy is to encourage and promote world closeness in order to contain problems, control excessive waste of resources, limit undesirable growth, such as energy consumption and other waste of natural resources, and share the means to optimize their use and cost-effectiveness. The mission is to build structures, design functions, mobilize resources and set plans to be executed. Hence, when all the above are decided, the next phase will be the implementation of the strategies. If the policy is properly made and the resources are mobilized, implementation will be effected. Continued evolution to ensure validity of the process and to learn and grasp the essence of what has been achieved is the evolutionary phase of the strategy.

The realization of regionalism with sustainable existence should lead to acceleration of a globalism comprising all the regions of the world. In this way sustainability will be more achievable.

2.1.5 Projections of Regionalism

Regionalism brings together a pool of knowledge, skills and desires to serve a common purpose in the interest
of all. The advantages and disadvantages of issues can be debated and analysed. Solutions agreed upon by consensus or majority vote are more likely to be in the best interests of the common cause. The essence of such arrangements is that the benefits of the outcome cover more territory by lending themselves to reflect the spirit and desires of the states of a region and should respond more adequately to the needs of the people. The intra-regional knowledge and skill will produce better results when they are put to work together. The sum of these factors gives greater meaning to the issues than the individual effort. The cost of developing an individual approach in the end will be more than the portion of a state's contribution to the regional budget. This is true in any situation when modular plans and standardized methods and procedures can be tailored for wider use.

In some regions, this can be achieved more quickly and easily when differences in language, religion, culture, history and economic disparity are either non-existent or extremely limited. In the EC every member with the exception of the UK and Ireland speaks a different language. The great advantage is that they are all Europeans and their economic and technological standards are fairly close.

The Middle East region consisting of the Arab countries has unique similarities which do not exist in any other region. Religion, language, history and technological developments are the same. Economic conditions in some ways
are different, but that should be one of the driving forces behind a sound regional framework to share resources and accelerate integration and development.

Asia has great potential for a better future within a collective regional approach instead of the present situation. In all cases, alliances with partners outside the region have limitations and consequences at the expense of regional harmony and good neighbourhood.

2.1.6 Analysis of the Air Transport Future Model

The following analysis focuses on the process of the air transport industry. Elements of the air transport industry consist of three major components, as shown in Fig. (2.1).
Fig. (2.1) FLOW MODEL OF AIR TRANSPORT INDUSTRY
Within the air transport industry as a whole, there are three large areas in which the input-output flows are determinative. These are, in the order of Fig. (2.1), People, both personnel and passengers, who contribute to the field of operations; Materials and Energy, which make up supplies; and Informatics, which governs the area of controls. The direction of the flow of operators is constant insofar as there is a steady stream of passengers and aviation personnel. In the area of Materials and Energy, however, there is waste of fuel and consumption of supplies that must be reflected back into operational outlay and expenditure on goods. Likewise, in the third area, of controls, Informatics systems constantly engender the need for state policies and service regulations and in turn feed back into the demand for information organization and control. This progressively complicated flow from departure to destination and back again creates the increasingly complex, yet strategically manageable situation in the present day air transport industry.

The Triadic elements of the model in Fig. (2.1) have three significant characteristics, each of which is also a characteristic of systems and subsystems configurations of Alnopoulous' Policy Preparing Process model, as is illustrated in the following summary.

a. Dynamic. If the components are taken either individually or together, they meet the basic definition of thermodynamics or the matter-energy transformation
process... They take from the environment, process the input, produce an output and provide a feedback to the input to rejuvenate the system. This is true not only for the parent Triad, but also for the subsystem Triadic elements where the process flow is gradually completed.

b. **Informatic.** This is a function which provides data upon which the system interacts. The message is carried from the environment to the system where processing takes place. The internal environment acts collectively in accordance with a specific program designed to perform multi-function processing and produce the desirable, or other, results. Thus, processing information becomes increasingly critical and highly influential in the quality control of the systems. In today's informatic age, informationalization is viewed with great interest in the safety and security oriented environment of civil aviation.

c. **Cybernetic.** This is the normative process of the system through which various standards of performance are systematically maintained and precisely controlled. The control is achieved through a systematic process at every level of the system operations and service forwarding. One can say without reservation that the cybernetic concept is more closely observed and practised in the air transport industry than in any other mode of transport, and indeed it might not be too far from the truth to say, more than in any other civilian endeavour. Systemswise "fly-by-wire" aircraft
are a reality: this is an excellent example of cybernetic concept implementation.

Computer Reservation System (CRS) is becoming a global network connecting airlines, travel agents, CEOs' offices, the cockpits of aircraft, and personnel modems all over the world. In the future monitoring of all aircrafts traversing airways to and from continents around the globe will be a physical reality of air transport operations. It is no longer a question of the content of a message; rather, efficiency and orderly flow of information have become the name of the game. The future will be more challenging and even more rewarding to the creative intellect of mankind.

This is how the Triadic model in Fig. (2.1) is being qualitatively tested. In future studies, the intention is to expand the qualitative analysis and to include some quantitative treatment of the interactions between the actors, in an attempt to correlate the relationship.

In addition, the universality of standard and operational conduct of air transport is a complex quantum of action and reaction. The economical impact and cultural interaction of modern societies can only be viewed in the context of global macro-politics.

a. The regulators are those who establish policies, standards and procedures and oversee their implementation.

b. The providers are those who provide the services, e.g., airlines, airport authorities and air navigation entities
c. The consumers, i.e., individuals, groups of people, corporate and government entities, are those who use the industry to communicate and transport their persons and products.

Therefore, Arnopoulos' Policy Preparing Process model illustrated above is closely related in its functioning to the concept of the first Triadic model shown in Figure (2.1).

2.1.7

At the international level, the activities of air transport are conducted within a multilateral forum, through ICAO and other regional bodies (ECAC, AFCAC, LACAC, etc.). The flow of events is interdependent and interrelated in a socio-political-economic context. The foundation of the policy process of such a multilateral international organization (ICAO) is generated within the framework of the Chicago Convention of 1944. These then are the main diagnostic symptoms of the present stage of civil aviation.
2.2 NATIONALISM: The Historical Perspective: Anagnosis

2.2.1 Introduction

Every nation state requires an air transport utility as part of its community means for conducting movements of people and goods. As a consequence of such a requirement, civil aviation becomes one of its institutions for providing regulations, establishing national standards, building air navigation facilities, such as airports and communications centres, and acquiring air carriers. Airports and air carriers are fundamental infrastructures for any nation. The following sections will explain the historical background for civil aviation and its basic native components.

2.2.2 Factors: The Chicago Convention.

The present reality of air transport is a result of circumstances which have occurred over the last fifty years. Before the end of the Second World War the USA, UK and other nations foresaw the importance of air travel. Owing to experience in crossing the North Atlantic, as well as to the huge investment in the air industry to support the war effort, the infrastructure which had been established had to be made use of after the end of the war. Many airports and air navigation facilities had been built. Communication links, radar installations, and navigational aids were installed to serve key air routes which had been used near the end of the war to transport men and materials to the fronts. Air power had made significant gains in the last two years of the conflict.
These are some of the factors which laid the foundation of the present air transport industry.

In 1944, the representatives of 52 states met in Chicago on the invitation of President Franklin Delano Roosevelt. They drafted one of the most important legal instruments in the history of international treaties, the "Chicago Convention on International Civil Aviation". The convention focused attention on the understanding of air space sovereignty and equal opportunity for all participants. A permanent council to be elected every three years was created; it would be served by a permanent secretariat in Montreal. From then on, civil aviation began to evolve with unprecedented speed, taking as its cue the metaphor "The sky's the limit"; indeed, the skies became unlimited limits where human beings found yet another playground to exercise their imagination and satisfy their curiosity. Such ventures led to man's landing on the moon, and who knows what might follow, perhaps even the discovery of life on other planets. Such are the by-products of air exploration and human creativity.

2.2.3 Subsequent History

The foundation of the present air transport industry was successfully put in place during the Chicago Convention in 1944. The result was an international legal framework which became widely adhered to and highly respected. This is reflected by the rate of growth in membership of the International Civil Aviation Organization (ICAO), the expansion of
the aviation industry, the increased volume of air traffic and the impact on the world economy (see graphs at end of chapter). Although basic principles were clearly stipulated in the provisions of the Chicago Convention, the industry evolved through a gradual process shaped by various international trends that have occurred over the last 50 years. The trends have been influenced by many factors, e.g., social interactions and socio-economic, geopolitical, and technological developments. On the basis of the past and present realities surrounding the air transport industry, this thesis proposes some ideas for consideration in the planning of a global strategy for the air transport industry in the next 50 years. The industry has become, through its contribution to world affairs, a global phenomenon, and will continue to be so.

The most significant outcomes of the Chicago Convention were:

First, there was the creation of ICAO: what is now a 180 member multilateral forum respecting the protection of the principle of the absolute sovereignty of each state in its airspace, including total control of air operations to and from it.

Second, there was the consensus agreement on the technical characteristics of civil aviation parameters. The consensus survived the turbulent decades following World War II and became a legend in its own right. The world community
has accepted the fundamental premises of the Chicago Convention and continued to build on them in a rational way. Perhaps this is due to the clarity of the issues involved and the fewer political implications related to them. The evolution of technology and the healthy environment made available by the air transport industry to experiment and, finally, to put into practice avant-garde innovations contributed to growth and operational efficiency. The visibility of civil aviation worldwide further enhanced the image and promoted wider acceptance and adaptation by states. The concept of universality prevailed from the beginning in the technological area. This of course may be attributed to the rational methodology associated with science-oriented disciplines. The social impact also took precedent over economic elements in the overall context of aviation evolution. This is why a common agreement exists among analysts that the aviation industry stands unique among mankind's significant achievements.

Third, there is the commercial side of the air transport industry. Here the Chicago Convention did not succeed in establishing a clear framework of reference. This was due to the way in which the main actors, namely, the USA and its European partner the UK, and later the European Economic Community (EEC), anticipated the importance of the air transport industry and its impact on socio-economic and geopolitical affairs. The USA tried to influence the outcome
of the Chicago Convention in its own favour. Britain and Canada, however, were adamant that the equal opportunity philosophy must be one of the pillars of what later became one of the post-WWII success stories: the air transport industry.

Recent studies testify that some 80% of the products used in air transport (airborne and ground facilities) come from the USA or from its corporate affiliates worldwide. Such studies clearly indicate the leading role of the USA in this area as well as its overwhelming dominance.

2.2.4 Significant Trends

In the late 50's and early 60's, the introduction of jet engines, the improvement in avionics, the launching of Sputnik 1957, the events leading to the establishment of the Outer Space Treaty, and the development of ICAO's technical annexes were the prominent issues. These affected the speed and range at which airplanes can fly non-stop, as well as their passenger capacity. The USA, of course, had the technological edge in such developments. The 70's, however, began with the outbreak of a most unfortunate phenomenon: terrorism, which resulted in worldwide precautions affecting air operations and their efficiency. Terrorist acts and their consequences were politically motivated as a result of injustices prevailing in many parts of the world. When a plane leaves the ground, it becomes an autonomous microcountry or political unit. While it is in the air, the captain is king of the country, the crew his lieutenants and the
passengers his subjects, whose lives depend on his skill and their obedience to his orders. Simply by using a threat, the skyjacker brings about a coup d'état, putting himself in the position of authority and controlling the outside forces he feels have put him down all his life. He in fact becomes king, the passengers and his crew his fearful subjects. Again, the visibility of civil aviation made it an attractive target to draw the attention of the world to grievances felt by certain political groups (St. John 1951).

The response of the international community to unlawful acts against international civil aviation resulted in serious attempts to combat such acts. The codification and development of international air law dealing with acts of terrorism was worked out by the ICAO Legal Committee in a series of conventions, chief among which were the 1963 Tokyo Convention, the 1970 Hague Convention, the 1971 Montreal Declaration and 1988 Montreal Protocol, all were adopted under the auspices of ICAO. (See Appendix I:126-136.) On 1 March 1991, the Diplomatic Conference on Air Law under the auspices of ICAO met at Montreal and adopted a Convention on the marking of plastic explosives for the purpose of detection. These conventions demonstrate the political will of the international community to safeguard people and property through an international collective approach.

Through ICAO, in close cooperation with the nation states, great successes have been achieved at preventing
disturbances of normal civil aviation operations and at assuring innocent travellers' safety.

The 80's were dominated by the Deregulation Act of the US Congress. According to Welch Fogue, although lower fares were always the overriding issue for the deregulators, in fact they were only a relatively minor matter compared to the huge investment which gave a reliable airline system the following ensemble of characteristics: "1) Good service; 2) Legal fares that were related to costs; 3) Rebates and all forms of discriminations made illegal; 4) Unfair competitive practices made subject to regulation; 5) Assured financial soundness of airlines, so that none would be tempted to skimp on maintenance; and 6) Knowledge that the government stood behind the airlines as it [had] done for 40 years." All these characteristics together were more important than having cheap fares for a short span. The economic fallacy behind the lower-fares view was that "unregulated competition would be self-policing and would, thus, insure the continuance of free competition in an open field." Fogue thinks that nothing could be further from the truth.

This is a symptom of the market economy which put into question the validity of uncontrolled competition. After one and half decades of deregulation, the USA has established a commission to explore the possibility of reintroducing quasi-regulations. Ironically, it is members of the same Democratic Party that introduced deregulation in 1978 under
the Carter administration who are currently studying some kind of regulations under the Clinton administration.

The struggle between two aviation powers (UK and USA) since 1944 when the Chicago Convention was created indicates regional differences over air transport influence and control in Europe for the last 50 years. The USA has been striving to penetrate and dominate the market while the UK insists on equal partnership. Within the EC, the UK's position has been strengthened, but the USA still attempts to penetrate by offering attractive benefits to some members of the EC outside the context of the EC policy approach. The open skies agreement with the Netherlands is a case in point.

Starting with Chicago in 1944 and passing through Bermuda 1, 2, (1946-1976) to the present debate over the US deregulation act in quest of open-market access and the EC's unified bilateral policy (in waiting), air transport continues to pay the price. But growth is on the rise, and public confidence is solid in the ability to meet public demand. This demonstrates the importance of air transport as one of modern society's imperatives.

The nature of the industry, coupled with the universality of its use and the consensus on technical standards and operational procedures in an interdependent and liberalized environment of market practice, reflects the urgent need for regions to adopt a collective approach. When this takes place the economic health of the industry and the
services it provides can be enhanced significantly and most assuredly. Hence, confidence of the public in safety and regularity can also be assured. The demand can be met under cost-effective conditions and the contribution to other sectors of the society and the economies will be in line with the overall global objectives of efficient use of resources to make the world a better place to live in.

2.2.5 International Civil Aviation at Present

If we turn to the concrete situation of civil aviation within the last generation, we are immediately confronted with one of the world's fastest growing industrial and commercial complexes, rivaled only by high technology and telecommunications, with both of which it is closely involved.

The following tables illustrate the basic aspects of this phenomenal growth. Table I shows that the increase in world passenger traffic between 1945 and 1991 in terms of RPK's was approximately 1,750 billion excluding the Russian Federation and nearer to 1,900 billion if the latter is included. The world gross domestic product between 1960 and 1991 rose from 5 trillion dollars U.S. to just over 14 trillion dollars U.S. (Table II). On the other hand, the index of world yields for the same period has fallen constantly, except for a certain fluctuation between 1970 and 1980, from 100 to 54.50 (Table III. For a detailed summary of Tables I - III, see Table IV.) In relation to scheduled freight traffic for the ICAO Contracting States there was in
the decade 1980-1990 a 7.3% average annual growth rate for
tonne-kilometres (8.6 international; 3.5 domestic) and 5.1% for
Tonnes carried (7.3 international; 3.5 domestic). A
decrease to 6.5 and 4.5% respectively has been projected for
the year 2001 (Table V). Insofar as regional shares of
international traffic between 1980 and 1990 are concerned,
there has been for both passenger and freight-tonne kilometres
a marked increase for Asia and the Pacific, while Europe has
decreased slightly, though still occupying the largest share.
For North America there has been a fair increase from 21.2 to
24.6% in passenger-kilometres and a less substantial decrease
in freight tonne-kilometres from 18.7 to 17.6%. Latin America
has decreased by about 2% in both areas, while the Middle East
has increased by about the same percent. Though always
maintaining the smallest share, the countries of Africa have
decreased from 4.8% to 3.7% for passenger-kilometres and from
3.6% to 2.3% for freight tonne-kilometres. (For graphs of
regional shares 1980-1990, see Table VI.)

The foregoing statistical overview reveals not only
the vast and increasing commercial value of civil aviation,
but also its concentration in Europe and North America,
largely owing to historical economic causes. What bears
watching is the growing importance of the Asian and Pacific
Rim countries. Furthermore, a matter for serious concern is
the status of what have heretofore been called the Third World
Countries, especially those of Latin America and Africa.
2.2.6 The Critical Perspective

One of the advantages of developing a more viable form of regionalism than that at present in effect would be to ensure a greater balancing out and, perhaps, even distribution of wealth, influence, and services. Regionalism as an active means toward globalism with a human face appeals to the basic insights of universalism, peace, and mutual cooperation for which the United Nations and its affiliated organizations stand.

On the negative side, in the present upheaval in the aftermath of the Deregulation Act by the USA in 1978 are those who expected an avalanche that would bury what is left of the economic regulation of civil aviation. They argue that the benefits of complete liberalization outweigh the disadvantages. Thus the law of supply and demand will prevent dominance and create realistic competition. Unfortunately for them, the results of the last decade and a half do not support their claim. Bankruptcies, unemployment, colossal losses, excessive capacities and oligopoly are the prevailing terms used to describe the state of the air transport industry.

Their argument can be made against the trend of globalism analysed in this thesis. The debate will continue, but positions have to be clarified and supported by strong theories derived from the social sciences and political economy and shaped within a legal framework. For those who believe in a future global order, specific steps have to be
taken to put in place structures, institutions, and agencies which will further the case for globalism. (For specific proposals, see Chapter 3.2.) One should not be so naive as to argue that the experience of the past or the current practices are promising indications to that effect, but this is an aspiration to be pursued vigorously and one which would support the concept of equal opportunity called for in the Chicago Convention.
WORLD PASSENGER TRAFFIC, 1945 - 1991
Scheduled Passenger-kilometres performed

WORLD GDP IN REAL TERMS, 1960 - 1991

1985 U.S. $ (billions)

Source: OECD, "Main Economic Indicators"
## Table IV. Data Used to Construct Graphs

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<th>Year</th>
<th>10M</th>
<th>50M</th>
<th>100M</th>
<th>150M</th>
<th>200M</th>
<th>250M</th>
<th>300M</th>
<th>350M</th>
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Note: Insert data entries as needed.
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<th></th>
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<th>Average annual growth rate</th>
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<td>Scheduled services</td>
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<td>58.869</td>
<td>67.9</td>
<td>118.410</td>
<td>7.3</td>
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<tr>
<td>International</td>
<td>29.251</td>
<td>46.393</td>
<td>45.1</td>
<td>100.9</td>
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<tr>
<td>Domestic</td>
<td>8.862</td>
<td>12.476</td>
<td>12.0</td>
<td>17.5</td>
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<tr>
<td>Freight tonnes carried (thousand)</td>
<td>11 (100)</td>
<td>18.288</td>
<td>17.310</td>
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<td>8.944</td>
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- Rounded to the nearest 0.1 percentage point.

Source: ICAO Digest of Statistics 1991
2.3 GLOBALISM: Future Prospects: Prognosis

2.3.1 Introduction

It is forecast that the future of the air transport industry will continue to grow annually by ± 6%. Such growth is due to the increasing worldwide demands by the public on the use of this mode of transport. The purpose of air transport is twofold: first, to enhance communication by moving people faster from one place to another; second, to expedite movements of goods from the source of manufacturing to the user, i.e., from supplier to consumer. Growth in population, trade, standard of living and advanced communications result in increasing demands which must be met. Such factors determine our unit of forecast. With a reasonably accurate forecast, we can proceed to plan to meet our demands using the Policy Preparing Process model [15].

The aim of this section is to survey some of the future possibilities implicated in the concept of globalism. Since our study takes into consideration globalization tendencies in the hope of accelerating the processes of cooperation and mutual understanding of the world, we have projected the concept of regionalism as a transitional state for the achievement of the global perspective. The prevailing trends speak of global strategies, global economies, and the global order. Since we argue in this study that civil aviation is increasingly becoming a global necessity, it
follows that future civil aviation policy formulation and strategies should be structured on a universal basis involving the cooperation and input, in consensual form, of all the present and future members of ICAO. Such orientation of future policies is the only choice for future challenges. If every region in the world were to achieve the formation of a regional body to oversee civil aviation affairs, then those bodies would serve as basic components of the envisaged global structure. Instead of 180 different opinions, as at present, there would be, for example, seven representatives for any issues that might arise. This will further the objectives of the Chicago Convention and enhance ICAO's standing and efforts. Furthermore, it will facilitate significant developments toward universalism.

2.3.2 Privatization and Multinational Ownership

A very important and interesting question which has been addressed by the International Air Transport Association (IATA) is whether or not the air transport industry is moving towards a structure of global airlines with multi-national ownership. Here again, the eventual outcome is a matter for speculation, but there are several significant indications that the structure of the airline industry worldwide is in the process of a profound long-term change.

The privatization of airlines is an important factor in this process. This is not to say that privatization policies have been motivated by visions of a multinational
future. The motives for privatization and multinationalization have been highly diverse. They range from purely ideological political aspirations in the move away from state ownership to a more pragmatic desire to reduce the burden on national subsidies of large capital requirements for new aircraft. The extent of the moves towards airline privatization throughout the world in recent years has been quite remarkable. It does not automatically follow, however, that private ownership reduces the extent or nature of national interest in airline operations. There are many countries, including the US, going to great lengths to protect their own airlines, even when they are privately owned. In the long term, it seems a reasonable proposition that aviation nationalism will be diminished by the abolition of state ownership. And it is clearly true that the company structure of private ownership makes it easier to introduce foreign investment into an airline than if it were state owned.

This leads to the second factor in the changing status of the industry: a move towards acceptance of foreign investments in national airlines. The extent of this development is as remarkable as that of privatization. In fact, there exist several cases in many countries in which foreign investments in airlines have been accepted or are under consideration. Even as this is being written, many world carriers are eagerly rushing to buy equities in foreign carriers to gain advantage for future positioning in the
This raises the whole question of "substantial ownership and effective control", both in national licensing policies and in bilateral agreements. In many countries a licence to operate an air service is only granted to an airline which is substantially owned, and effectively controlled by nationals of the country. This requirement may sometimes be waived, as it has been in the UK for airlines like Monarch and Britannia or was, in the past, for CP Air in Canada, but in general it is still the ruling policy. So also is the requirement in bilateral agreements that designated airlines should be owned and controlled by nationals of the country designating them. It is true, however, that the "substantial ownership and effective control" clauses of bilateral agreements are normally permissive and not mandatory, i.e., a country may refuse to accept the designation of an airline on these grounds, not that it must. Nevertheless, past practices have been for most countries to insist on the ownership and control conditions. For example, a valid concern of the British government when faced with the possibility of a substantial Scandinavian Air System (SAS) ownership of British Caledonian, was that foreign governments might refuse to accept a BCAL designation under these ownership situations.

In many circumstances, bilateral bargaining will decide the issue. If, for example, airlines of country X became substantially foreign-owned, another state would face
the alternative of accepting the designation of such an airline, or losing the rights of its own airline to operate to country X.

Another situation is developing in the European Community. The Dutch government has already decided to register as a Dutch company any airline in which 75 percent of the shares are owned by nationals of the Community. This is the forerunner of a Community ownership clause which may well become the normal practice in bilateral agreements of EEC member states and third countries, in the next decade. Cross-frontier investments are likely to become more common from now on in Europe, and multinational airline ownership will probably develop more rapidly in the Community than in other parts of the world.

These developments in multinational ownership are of particular relevance when viewed in the context of marketing advantages of large airlines noted by some deregulation analysts such as Khan and Levine. These advantages have been widely recognized by many airlines of the world and are a prime motivation of the current interest in mergers and alliances. In the long term, transnational mergers and multinational ownership seem certain to emerge from these pressures to create larger airlines. In the immediate future many new forms of alliances are being developed to achieve some of the marketing advantages of large airlines without the ultimate step of merging. One of the most significant of such
alliances is that between Texas Air and SAS. In this case the marketing agreement has been cemented by SAS taking a ten percent shareholding in Texas Air. This may be analogous to the development in US domestic operations in which major airlines have found it desirable to become part or whole owners of feeder airlines in order to give long term stability to their operational cooperation. Although the future outcome of the foregoing developments is speculative, events in this field are profoundly important for the reshaping of the airline industry in a liberalized environment.

2.3.3 Future Scenarios

It is envisaged that future activities in the international civil aviation arena will be conducted within the framework of the following seven scenarios.

1) Regionalization

Airlines in every region of the world are trying to group together in one form or another so they will be able to control the market in their regions and negotiate as a group with other regions, pull their resources together to reduce unit cost, and exercise overall cost control. The following are some of the strategies that are being employed.

Carrier Approach Strategies. At present, the airlines are divided into three main groups - large, middle and small-size carriers.

a. Large-size carriers (Mega) American, Delta and United Airlines. These are all US carriers with strong
domestic market shares and strong government support for international liberalization of airline business. They are dominant at all levels: domestic, regional and international. Major world carriers are competing to form alliances with them to gain advantage for the future arrangements.

b. Middle-size carriers. The major European carriers like British Airways, Air France and Lufthansa are at the top of the list. In the Far East, Japan and Singapore Airlines come first. Major Far Eastern (Japan and Singapore) and European airlines are working very hard to make strong alliances with the mega carriers in the USA, for example as between Delta and Swissair and Singapore Air. Their survival will depend on the alliances they make and the routes they control in the international network. All those airlines with a regional fleet of 100 aircraft, a reasonable domestic market, and a good international route network are classified in the middle-size range. They are working on two fronts to solidify their regional position and to strengthen their bargaining capabilities with other regions.

c. Smaller-size carriers. These are the rest of the airlines in the world that are looking for opportunities in the market. They are comparable to the entrepreneurs of small businesses. Sometimes they are called the niche-seekers (hunters). Southwest Airlines in the USA is a good example.

2) Partner or Niche Strategy

This is one of the future strategies of airlines.
strong marketing techniques to find opportunities (a niche) and to exploit those opportunities in a successful way, it will be subjected to severe market pressures and may be unable to maintain its position. This is why this strategy is always in the mind of the air carrier executive.

3) Globalization

Regional and domestic markets are no longer enough for mega or middle-size carriers. The only alternative is to adopt a global strategy. Successful global strategy means that besides being strong domestically and regionally, airlines must be able to reach other regions and join with the advantages available in those markets to enhance their position. One of the most important elements of globalization is decentralization of some of the activities of the mega-carriers, e.g., maintenance centres, joint marketing approaches with partners in other regions, joint ticketing format and price structures. This will require stronger centres in every region of the world and an effective distribution network in every state of each region.

4) Informationalization

The introduction of computer information systems in air transport industry operations will be one of the key strategies in the coming years. The introduction of such systems at every contact point will reduce cost and increase efficiency.
a. **Airlines.** Computer reservation systems (CRS) already exist but their use is limited. Universal application with expansion of data format and profiles will result in great savings and increased efficiency for airlines and will be reflected in the cost to passengers.

b. **Airports.** At the airports informationalization will enhance the handling capabilities, reduce congestion and generate more revenue to cover the cost.

c. **Airplanes.** Informationalization will be directed at three major points: 1) the customer (leisure and business) for passengers on board; 2) the crews (pilots and flight attendants); 3) ground operations (maintenance, baggage handling and catering). The on-board information network is targeted at all three benefits: better cost and controls, better services, and new business opportunities.

Data capture on-board, for example, would eliminate overhead and inaccuracies from the verbal or paper methods currently used for crew payroll (flight times), fuelling, catering, passenger accounts, and so on. There are important operating efficiencies to be had from a "paper list aircraft"

5) **Continuation of Conflict**

If the present trends continue to progress in accordance with US liberalization policies, the industry will be dominated by oligopoly and uncertainty, as has been the case during the last decade. This is due to the gap between
the USA on one hand and the European Community (EC) and Japan on the other. Furthermore, there is also the position of the developing countries vis-à-vis the developed countries. The conflict with the developed countries (USA, EC and Japan) are due to market share allocations. The USA wants nothing short of total dominance in line with its deregulation policy projection. The EC and Japan insist on partnership on equal footing in a liberalized framework. Liberalization is a concept closely linked to the market economy and as such there is no contradiction between the market economy countries except in the market share appropriation. The conflict between the developing countries is of a different nature. Airlines are almost always 100% state-owned and other infrastructures like airports and air navigation facilities are also state-owned and cannot exist without government subsidies. There is little chance therefore of competing with advanced systems in developed countries, be it at the level of facilitation or at that involving prices and services. Civil aviation in developing countries is not highest on the list of priorities.

6) Dominance_of_the_North

If the EC and Japan can make a plan acceptable to the USA, taking into consideration the importance of the latter in civil aviation worldwide, in addition to its political influence, it will be in their interest to have a common understanding. The latter might be at the expense of
the developing countries, and in the final analysis, might not
serve the interest of mankind. The north/south gap will be
widened further, and resentment will escalate up to a level
where this very crucial industry with its international
characteristics might be harmed.

7) Global Order

It is hoped that a world order within the framework
of the Chicago Convention and its annexes will prevail. The
principles of the Chicago Convention focused on the promotion
of peace and understanding among the people and nations of the
world. This is one of the most important elements which civil
aviation brought to the world community. It has been a
vehicle of change for internationalism and a pioneer in many
aspects of human existence.

On this basis, the last few years of this decade
will be extremely crucial to the future of civil aviation.
ICAO will be celebrating its 50th anniversary in 1994. From
now to the beginning of the 21st century, the industry will
witness a transitional transformation in technology,
operational methodology and consequential training as a result
of the introduction of satellite technologies for ground and
airborne facilities. The informatie age in which we live is
best appreciated in its cybernetic nature by civil aviation
where global village ideals are no longer a myth but a
concrete reality.
2.3.4 Future Watch

The dominant potential for the future of the air transport industry will be in Asia and the Pacific. China, with a population of over 1.1 billion people, i.e. one-fifth of the world's population, and with a rapidly growing economy, will play a much larger role in the future of civil aviation, both domestically and internationally. Political changes will encourage increased travelling for business and touristic reasons. The country's great historical heritage, to which the rest of the world has had limited access in the past century, will be an incentive for travel to China. Chinese people, on the other hand, will be curious to see the rest of the world. Since civil aviation is still in its infancy in China, there is little doubt that the 21st century will witness its expansion and development at a faster pace and with greater magnitude than has heretofore been the case.

The second is the Indian subcontinent, with a population near to that of China, another one-fifth of the world's population, will no doubt play a significant role in the future of international civil aviation owing to the fact that they are at the initial stages of massive development. They are also pressing hard for a breakthrough in the technological field. Globalization in this part of the world will require intensive logistical supports to take advantage of the information outburst that will be created by this demand for technology.
The third most important area is the Pacific Rim where explosion in growth has already started. The uniqueness of circumstances in this area will be the focus of many international experts in the field of civil aviation. Discipline, controlled environment, and vast manpower resources are all important factors in productivity and unit cost control in this part of the world. Low unit costs, increasing consumption due to the improvement in the standard of living, and an increase in population, linked to a rigorous sense of discipline, are the major drivers in the Pacific Rim environment and will no doubt impact positively upon the international air transport industry.

It is ironic that there is no formal civil aviation body at the regional level for China, the Indian subcontinent or the Pacific Rim countries. It will be to the advantage of the international community to pay close attention to changes in the three areas mentioned above so that they will not become either isolated or dominant.

The next major component of the future is centered on developments in North America and Western Europe. North America, with NAFTA in place, will have a population of 350 million people, with the United States commanding the largest economy and the biggest aviation power in the world. Five hundred million of 1.2 billion world passengers are handled by the US air transport system alone. Recent developments in geo-politics have put a very great burden on the economy and
infrastructure of the US. Future decisions will require greater understanding of the world's problems in the field of civil aviation. Implementation of the proposals in our thesis will be influenced significantly by the American attitude.

Western Europe within the framework of the Treaty of Rome and the latest Maastricht agreement is progressing rapidly towards total unity. This will mean a unified approach to all their civil aviation problems. One cannot help but recognize the need for decentralizing the movement of traffic from the present convergence points, like London, Paris, and Frankfurt, to relieve the problems of congestion which are becoming extremely expensive for the domestic and international carriers, involving as they do a total waste of over 5 billion dollars per annum with no benefit to anyone. The Eurocontrol model is applicable to other parts of the world, and the implementation of new technology, satellite-based CNS/ATM will require emulation of such an arrangement in other regions.

Common characteristics shared by the EC and North America are high technology and a high standard of living, along with troubled economies, rising unemployment, and huge deficits. While globalization is emphasized at the higher echelons of the political hierarchies, there is a serious movement towards isolationism in these two areas, carrying with it all the negative aspects of nationalism. The existence of such a phenomenon, however, should not be allowed to affect progress towards globalization.
The third component of the future comprises Africa, the Middle East, and Latin America, as well as certain emerging countries like those in Eastern Europe and the Russian Federation. Concentration, focusing on a regional approach, in these areas is essential because of lack of high tech industry and the demand for capital investment in order to improve and expand the infrastructures. There is an urgent need in these areas for survival in the light of the pressures exerted by the two giants, the Pacific Rim and North America, and the revolutionary growth in air traffic taking place in the Pacific Rim.

This mapping of the world synthesizes the components of the theme in this study to support the thesis of the need of accelerating the tendency toward globalization with the ultimate objective of globalism in the field of civil aviation.

Half a century is a long time in an organization's life span. ICAO should be sensitive to changes in its evolutionary development and adapt its structures and functions to the requirements of the 21st century. Powerful vision, brilliant strategy and excellent management are imperatives for facing future global challenges. I hope that this study will be read as a modest contribution towards this end.

2.3.5 Conclusion

From the previous sections we can observe that certain trends have been established. There have been
continuous growth, increasing standards, unequalled safety records, a prominent public image, and consistent daily activities, which have solidified public dependence on this mode of transport and commitment to and full confidence in its products. Civil aviation has also been subjected to turbulences due to the lack of global agreement on concrete economic regulations. This makes its activities volatile to market pressures. Strong actors like the US and Europe press for dominance and improved gains while the rest of the world are striving to develop their capabilities and to catch up with the base dictated by the high-technological societies. The growth, flexibility, unit cost, and market potential of the Pacific Rim nations will be determinant factors in the first decade of the twenty-first century.

So what does the future hold for this field of human endeavour? Although the free-market forces will continue to promote their individual interests even at the expense of wider global benefits, the following projections are feasible. First, continuous success based on past experience and the formidable quest for new frontiers. Secondly, renewed impetus to accelerate the tendency for global structures. This will mean an active inspirational role based on the actualization of socio-political, economic, legal and technical practices in civil aviation. Thirdly, the technological advancements will make the science fiction of Isaac Asimov and Aldous Huxley matters of daily experience in air travel. Finally, as the metaphor goes, "the sky's the limit".

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This completes our limited application of the model to the field of international civil aviation and supports our thesis by evidence from the past and observations from the present along with our prognosis for the future.
CHAPTER 3

POLICY

3.1 INTRODUCTION

The present conditions in international civil aviation are far from perfect. The two previous chapters have shown the involvement of civil aviation in the global environment. The focus of this study has been on the globalization process. This has been envisaged as an ideal to be achieved. The continuation of present practices does not encourage the movement toward the ideal of globalism. Our models have pictured graphically how the structure of movement from nationalism to globalism occurs in hierarchically ordered stages. Civil aviation is basically conducted on the national level. Because of this efforts are fragmented and duplicated, resources are wasted and there is disparity in the quality of service in various areas. What is required are global solutions instead of piecemeal ways of dealing with problems. The nature of civil aviation is conducive to a collective approach which should be utilized more frequently. Although networking has constantly been remarked in the field of civil aviation, future requirements dictate that its use should be expanded.


In order to evaluate the present structure and process of policy planning in civil aviation, it is useful to
review the symptoms of the present situation and extrapolate some projections.

A. Air transport industry and its conceptual framework (civil aviation) are presently passing through a transitional period. Technology is forcing change from ground-based air navigation facilities to satellites. Such change is bringing a completely new philosophy into play in operational methodology at all levels (users, providers and regulators). Never before has air transport been confronted with such fundamental changes that put into question all the existing standards, procedural methods and processes.

B. The providers during the last decade have been struggling with the concept of restructuring. Behind this concept are the economic pressures driven by competition and cost-effectiveness demands. Investors want better returns on their investments and consumers press for better services with less cost. Regulating authorities maintain high vigilance for safe and secure operational environments. In addition, governments are determined to discontinue subsidies and impose higher charges in lieu of the services provided (landing charges, security, air navigation, taxation, etc.).

C. The debate on regulations reached its peak when the USA enacted deregulation in 1978. Since then the air transport industry has been subjected to turbulent changes. This will continue into the 21st century because of the gap between the developing countries which are struggling to
survive on many fronts, such as their requirements for food, medical supplies and other necessities. Meanwhile the developed countries are debating how best to cultivate the advantages offered by new technologies and further improve their standard of living.

D. The permanence of the air transport industry in the civic make-up of modern society is need driven. Society no longer questions its existence but demands its continuation. Reliability and efficiency have convinced the public of the viability of civil aviation. Safety records and speed of movement yield increasing importance.

3.1 2 Policy Formulation Proposals for Civil Aviation

The policy formulation of international civil aviation consists of several elements which have to be coordinated at the national and international levels. The process is a sequence of events or operations which evolves in a systematic way. At the international level of the policy establishment, ICAO is the multilateral framework wherein all states party to the Chicago Convention on International Civil Aviation (1944) get together to establish the lowest common denominator of regulations and procedures to govern the activities of the air transport industry. International policy reflects at large the interests and the needs of states in the world community. In this study, the context of industry activities is considered within the Triadic model shown below.
Fig. (3.1) SOCIAL SYSTEM SECTORS CONCEPT MODEL

Here, there is a three-way interactive interaction among economies, politics, and cultures. The national cultures and regional bodies inform the procedures and policies that impact on the level of international negotiations and multinational investments. The awareness of this produces a juster assessment of the cultural boundedness of the parties (e.g., the consciousness of Western post-colonialism, and of the need for compensations (e.g., in Third World countries)).

This model is applicable to both the national and international conduct of operations of the air transport industry. The dynamic nature of the air transport industry is characterized by advanced technology, universal application and the progressively high demand and fast movement that are essential components of the structure of modern society.
States utilize air transport internally to move people and goods from one place to another in accordance with needs, urgency and cost/benefits. Externally, the use has wider implications, extending the frontiers to symbolize both the sovereignty and prestige of the nation on the world stage. The national flag carrier projects the state's identity and its de facto existence among the family of nations.

For the purpose of this study the following steps will explain the structure of policy formulation in the field of air transport at both the national and international levels.

Beginning at the national level, the policy process is driven largely by self-interest. It can be divided into three: A) national, B) regional and C) international stages.

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**Fig. (3.2) POLICY INTERNATIONAL MODEL**
A. NATIONAL

The internal operation is tailored to meet the domestic requirements. This aspect depends on the size of territory, population and economy. Other kinds of transport modes, i.e., land and sea, can affect the policy, so that a small country with a good network of motorways, railroads and waterways (through rivers and canals) can usually utilize these modes as viable alternatives to transport by air. The lack of such alternatives increases the demand for air transport. The size of population and the volume of the economy are always determinant factors in the nations' policy in all fields of transport, and in particular transport by air. A country like the USA, commanding the largest economy in the world, with over 250 million people and a large geographical area, in addition to its international political influence, requires a strong and large infrastructure to meet its domestic needs and to promote its international interests.

To achieve the domestic objectives of air transport, states must therefore consider all the elements required structurally and operationally to fulfil the standards established for and by the industry.

To some extent the domestic policy structure is size-driven in terms of economy, population and territory. Strategically, however, the policy is objective-driven towards implementing the states' internal policies. Economically, the cost of implementation and the values of the return ultimately
account for the overall benefits. Creative cultures in some states generate high demands which result in complex activities politically and in multi-purpose economic transactions. The dynamic of events yields evolution and systematic growth. This is in line with the P.P.P. systems policy model which is applicable to the overall national policy (Arzepolicas 1992:167-182).

B. REGIONAL

The regional policy process is the culmination of what takes place in the domestic environment of every region in the world. Regulatory aspects are very closely related owing to the nature of operations which dictate close coordination and cooperation to ensure safety and security of movement between states in the region. Standards and procedures are usually consistent with both domestic and international laws which govern the civil aviation industry. Although flight information region (FIR) boundaries are closely identified and strict observation is adhered to, real time coordination is an imperative necessity around the clock.

The best example for regional policy development is currently taking place in the European Community (EC). The upper space is controlled by one authority, the Eurocontrol Centre in Belgium. This centre handles all flights above certain altitudes and coordinates all the local flights within the community. The overflying charges are collected by one authority and each state gets its share according to the ratio
of its contribution to the service provided. The EC is preparing now for common bilateral negotiations with other trading partners. This approach will have a serious impact on the relations between European Community and other regions of the world.

The regional carrier concept has been tested in Europe (SAS) and will be one of the future strategies worldwide. The EC is an excellent example for the dynamic, informatic and cybernetic model (1989). The policy activities are conducted according to the social context model Fig. (3.1).
Fig. (3.3) DYNAMIC MODEL
In the dynamic model Fig.(3.3), regional consideration is needed to complete the link between states and other regions of the world. The policy of states must take into consideration the regional implications, and the regional policies must take into account states' interests. In international relations, the regional approach is more effective than individual efforts by states.

This model will reduce the cost to states of implementing ICAO air navigation plans, increase efficiency and reduce the congestion of traffic. The structures of air routes and their realignment will be enhanced because of reductions in political tensions and the removal of some restricted segments of air space usually allocated for military use. The regional common approach will also lead to improved communication, navigation and surveillance (CNS) coverage required for air traffic handling. All this will result in improve ATM/ASM in the region and will help traffic flow to and from adjacent regions.

Friction between states due to sharp differences at the national level will diminish in a regional framework where inputs will be rationalized on the basis of agreed criteria reflecting regional rather than individual state interest.

C. INTERNATIONAL

The international requirements are dependent on the internal readiness of states to support and facilitate the kind of international air transport they wish to have.
Communication with neighbouring countries and the magnitude of goods determine the size of involvements. Naturally, states with a large population and strong international trade require large infrastructures (airports, air navigations facilities, technical training institutions) and big aircraft fleets to enable them to conduct their communication and trade with their neighbours, and with trading partners in other regions, in a convenient and efficient way.

Furthermore, civil aviation is an integral component of national trading activities. It is one of the methods used to achieve national objectives, thereby becoming part of the national strategy of any State. The stronger the domestic base, the higher the potential for strong regional and international participation.

Globalism will undoubtedly enhance the global aspirations toward quicker solutions for world problems. "Global problems such as nuclear war, ecological unbalance, depletion of resources, environmental pollution and population growth call for development of new institutions with global rather than national orientations" (Colclasure & Kose 1990: 113).

The culture of air transport industry is universal and conducive to globalism. The technical standards are the same in all civil aviation environments. Training and operational procedures at every level in the industry are standardized and the only difference is in the application process. There is, however, a certain limit which one cannot
go beyond, because the result will be catastrophic, especially in the safety and security areas. A Boeing 747 captain working for United Airlines, with the very minimum or no briefing at all, can pilot a Boeing 747 for Air India, Tanzania or Mexican Airlines. The Air Traffic Control Lexicon is almost the same everywhere in the world. This shows how close standardization is in civil aviation — thanks to the Chicago Convention and its 18 annexes which are applicable in every aviation environment in the world.

To simplify the policy process and operations of the civil aviation activities (national, regional and international) to meet efficient, orderly and cost benefit air transport, one can say that the overall structure is resource and requirement driven; the strategy is method and objective driven; and the benefit is cost and value driven. Application starts at the national or domestic level, then it extends to the regional and international levels with a feedback loop to the national level Fig. (3.3). This is how the structure of policy formulation in air transport can be described.

3.1.3 Strategic Objectives

International civil aviation can continue to be a catalyst for world prosperity, peace and understanding by building on the achievement of the past. This can best be effected in our view by implementing the following strategic objectives.
First, globalism is to be promoted by adopting policies which will accelerate the global tendency, for example, through consensus development, global implementation of navigational requirements and closer association between regional bodies and ICAO structures. These matters are discussed in 3.2 below.

Secondly, ICAO should orient its future focus on regions which are behind in the development of air transport in order to narrow the gap between the developed and the underdeveloped regions. Special emphasis here should be placed on infrastructures.

Thirdly, globalization depends on the availability of information and the means of disseminating it. ICAO as a centralized world body should seek to enhance its capability in collecting information and using the logistic techniques of modern technologies to convey these data to regions and contracting states.

Fourthly, ICAO should become a "superconducting" organization in Davis and Davidson's terms. This would limit the deleterious effects of bureaucracy through effective management. (Davis & Davidson 1991: 261-01).

Fifthly, technical cooperation activities (technical assistance) should be integrated into the regular program budget.

Sixthly, outside commercial forces which might aspire to marginalize ICAO's role should be guarded against.
The proposals developed in the next section are intended to address the strategic objectives outlined above. It is hoped that the implementation of these proposals will bring the aviation community nearer to the realization of these objectives.

3.2 PROPOSALS

The gap between perception and reality has sometimes led to unnecessary friction between the two schools of thought and thus slowed down the advance toward political order. The relationship between perception and reality has also affected the international struggle for order (Steele, 1961: 411-414).

In politics there is a difference between perception and reality, although unusual congruence exists between perception and reality in economics, as in the EC case. This corresponds to our thesis about the field of international civil aviation (with special reference to the air transport industry) because of the transparency between perception and reality. Internationally, civil aviation is perceived as an efficient and safe mode of transportation. Furthermore, it is essential for the economic and social activities both externally and domestically. Its objectives are to promote peace and understanding among nations and people of the world, and to provide for safe, efficient and regular international travel. It is an excellent vehicle for diplomatic movements to conduct negotiation and convey opinions from one head of state to another. The overall contribution is generally perceived as
a positive one. There is no doubt that this perception reflects the reality. This is clearly demonstrated by the importance modern society attributes to travelling by air and also by the support of governments for infrastructural developments and functional facilitations. The relevant regulations are gradually integrated into national laws. International civil aviation is an excellent catalyst for the success of regionalism because of the compatibility of values and expectations among the participating units (regulatory bodies). Congruent functionalities are a fact in the air transport industry and foster strong economic ties, hence enhancing efforts for regionalism.

3.2.1 **Consensus in Decision-Making**

General consensus in a regional framework is more effective in developing global consensus on an international critical issue. Consensual philosophy is essential in an interdependent world. The policy under such conditions will gain more support in that it includes everybody in the process and makes them all winners, everyone from his own perspective. This is significantly recognized in the air transport industry; standards are being developed and endorsed on the basis of their consensus. Regulations and treaties are extremely sensitive to consensus building; this is why in many cases treaties have to be ratified by 2/3 of the parties before they become effective. Like definitions of space, time, measurement, etc., which societies and individuals
consensually agree upon, certain factors, such as transport, economy, environment, communications, etc., are also worthy of global consensus. There might be differences in quantification, but certainly not in the desirability, need, or the essence of their existence.

A coherent consensus must be based on a sound strategic management approach. Strategic management stands on the two pillars of strategy formulation and implementation.

The formulation depends on the definition of the philosophy guiding the policies to be formulated and the mission statement to be developed. These are essential to any organizational structure. Clarity and specificity in articulating them is fundamental to the success of the set-up, whether it be regional or global (Ibrahim & Argheyd 1992).

Implementation depends on environment, resources, leadership structures and controls. These are the basic elements for policies to be strategically realized and efficiently executed. To manage the execution, reasonable resources, both human and material, have to be available. Timing and commitment are key factors in strategic management. The leadership task is to assess the right appropriation of different environments and exercise adequate controls over the use of resources. Results will determine ability of the leadership, which in turn will account for their survival.

3.2.2 Regional Bodies vis-à-vis ICAO Regional Offices

There is a need to link the emergent regional bodies with ICAO regional offices. The reasons for doing this are to:
• unify the support services and reduce costs
• effect close cooperation and improve the implementation process of civil aviation regional plans
• reduce conflicts between states in the region which might affect the safety regularities and efficiency of air transport
• expedite regional studies in the civil aviation field in favour of future developments and ensure generic reflection on the regional reality
• bring about realistic forecasts that take into consideration the economic projections for civil aviation in a region
• expand regional planning activities to cover all the regional requirements rather than just the bare minimum.

As well, the four following considerations should be taken into account.

• Flight inspection units which are responsible for checking the air navigation facilities' parameters to ensure compliance with ICAO SARPs should be a regional project. Every state must either have such units or rely on outside help, depending on the size of civil aviation activities within states and the number of their facilities. This is an ideal case for regional activities rather than the individual state approach.
- Incident investigation board to find the causes and make recommendations to prevent the recurrence of incidents.

- Training institutes which have been promoted by ICAO in several regions of the world. Instead of each authority or air carrier having an independent technical institute or pilot training school, a regional set-up will provide the required facilities with less cost.

- Central upper FIR regional air traffic centre similar to Eurocontrol. This is an excellent model to be emulated for the benefits of the users, providers and regulators. Above all, the cost will no doubt be less; safety and efficiency will be improved.

At the air carrier level CRS, forecast, tariffs, baggage handling, travel agents' organization and control should be enhanced. Bilateral agreements within the region should disappear. Regular exchange of information on many aspects, such as securities, safety matters and violations, will result in smoother operations, efficient service and satisfied consumers.

Such linkages will result in more rapid collective actions to and from ICAO headquarters. The coordination between regions will benefit in this arrangement.
3.2.3 Global CNS/ATM Implementation

The past 50 years have witnessed a fragmented approach to the implementation of air navigation facilities. This situation has been acceptable because ground-based systems met operational requirements. The transition to satellite-based systems will necessitate a global approach to actualize the advantages offered by new technologies.

It is proposed that the triad of components of the communication, navigation and surveillance (CNS) system be provided by one network of satellites entirely dedicated to international civil aviation within the aeronautical frequency spectrum, in suitable and secure orbital planes, to perform all three functions of CNS. This will facilitate easier operations and management and will be more cost-effective. The technological advances provide the aviation community with a golden opportunity to introduce a global system capable of transcending national boundaries and one which would be truly international, operated and managed by ICAO on behalf of all 181 states party to the Chicago Convention. Thus, ICAO will spare the world community the potential conflict over the sensitive issue of national airspace sovereignty and provide for a smooth transition into the new aviation order.

3.2.4 User Charge Mechanism

Based on traffic growth of approximately 5% per annum projected by the International Air Transport Association (IATA), passenger traffic from 1995 to 2000 will average about
1.5 billion passengers per year. If the international community were to agree to finance implementation of the CNS/ATM systems through a user charge of $1 per passenger, $7.5 billion could be raised by the year 2000. If the fee were to be extended over an additional five years (2000-2005) it would yield about $15 billion. The CNS/ATM systems could be fully operational by the year 2010, providing full coverage for international civil aviation anywhere on our planet. The user charge will make implementation of the CNS/ATM systems concept possible and will also generate surplus funds to support further development of the global system and enhancement of ground facilities.

The chief advantage of this proposition is that it is easy to implement and entails no economic penalty to the state treasuries and no significant cost to the passengers who may in the long run gain airfare reductions. It will also spare states the burden of individual implementation and enhance the confidence required to phase out their ground-based air navigation systems. Furthermore, it will facilitate the transition to dependency on a global system under a multilateral treaty in which every state has a say and in which the members' rights will be protected by International Law. The alternative would be a free-market oriented venture where states have no real control, or the fragmentations of the past.
3.3 CONCLUSION

The purpose of this thesis is to advance the case for regional bodies which will then better serve the interests of nation states and enhance the process of decision-making at the global level. The thesis consists of three parts. Part One dealt with the available literature on IGO's, international civil aviation, and global management. The literature reviewed enabled us to understand the existing dominant theories in the three fields which constitute the parameters of this interdisciplinary research. It also formed the theoretical foundation for the formulation of the practical solutions to accelerate the tendency of globalization.

In Part Two the models of three concepts — regionalism, nationalism, and globalism — were analysed. In the course of our analysis, some models were adapted to the orientation of civil aviation following the general pattern of Armpoulos's Systematic Study Program model (Fig. 1.6). The pyramidal structural model in Fig. 1.5 illustrates the overall picture of the hierarchical arrangement that can be viewed from the micro, meso, and macro perspectives, or vice versa. The focus of this thesis is to construct a meso level based on the micro components. The ultimate objective is to achieve a macro structure consisting of a number of meso components and forming a globally viable structure. The path of information flows in both directions and gives a constant feedback to all components of the system.

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Part Three consists of a number of proposals which should be viewed as a contribution towards the solution of current difficulties that hinder progress in civil aviation. The implementation of these proposals will promote better understanding and wider application of the global mission of the air transport industry in the context of the established principles of the Chicago Convention.

The concept of regional bodies discussed in this study is intended to be structured on the basis of the institutions and laws obtaining in each region. Without appearing to duplicate the work of ICAO, which addresses the aviation concerns of the Contracting States, the administrative structures of regional bodies should use the ICAO model as a guide for their organization. When an issue of international character is discussed in the process of formulating a policy position, it is ideal that coordination with adjacent regions will take place to ensure minimum disagreement at the global level. Such structures will make global solutions feasible and the related issues more manageable. These structures will also yield time and energy to be expended for other projects in the interest of the wider world community.

The present study and the prevailing realities over the last fifty years justify the claim of ICAO for enhancement of its authority. International civil aviation has been recognized as an agent of change and its performance is a clear testimony to ICAO's aspirations. This is why it:
activities are viewed as a chain. For as long as the components remain interlocked the system's integrity stays intact. Once a link is severed the system's wholeness is violated and the performance is degraded. The influence of such factors is very visible in the safety and security areas.

In International Law, air-space sovereignty has been a sacred principle governing international civil aviation. Belonging to a cooperative or multilateral framework tends to impose constraints on sovereignty as a result of the obligations and conditions. The Contracting States party to the Chicago Convention enhanced their understanding of the concept of sovereignty through daily experience of the virtual control of their air space. Since future technologies will be based on satellite utilities, the flight information region (FIR) boundaries will be seamless. The consequences of this situation could lead to conflicts. The efficacy of the concept of air space sovereignty in the context of national politics and the global system will be put to the test when the CNS/ATM concept is realized through satellite technologies. This is due to the nature and structure of the system. If the implementation of the future systems is pursued individually by States, it will be necessary to redefine more specifically the meaning of air-space sovereignty and the limits of its application from the internal and external perspectives, taking into consideration the established principles of International Law. For these
reasons, future projects will require the consent of all Contracting States under the auspices of ICAO. With this consensual approach, conflicts over certain issues, such as those proposed in Part Three, will be minimized and benefits will be widely reaped.

The overall strategy of air transport is to continue its role as an essential component of modern society through which human beings facilitate communication and transportation of people and goods.

The dynamic nature of air transport lends itself to continuous changes in response to the overall evolution of humankind's way of life. Since it became a concrete reality after World War II, detailed planning at every level has been part of its daily activities. Management techniques and the methodology of implementation have benefitted from the global advancement in management theory, organizational behaviour, new technologies and the collective impact of all these on the social interactions of societies. Assured steady growth, coupled with the everlasting desire of human beings to excel and improve efficiency in the context of better service with increased economical yield, as well as the demand for advanced planning and a focused vision, require clear and viable strategies. "The implications are profound. Life itself is a mechanism that actively feeds back on to its environments in ways that are far more significant than we have supposed." (Hymans 1990:12).
The ideal structure of globalism can only be realized through a frame of mind and heart that constantly seeks mutual benefits in all human interactions. From its inception civil aviation has been an important actor in global affairs. The cybernetic characteristics of civil aviation structures and operations promote societal superconductivity which yields better use of resources for the common good. Like all other public utilities civilian air transport is subject to the pressures of the times. Nevertheless, it is an arena where the fusion of ingenuity and aspirations have been purposively cultivated. It is also prudent to project that growth in its use and the expansion of its facilities will have no serious adverse effects on the world's natural resources. On the contrary, it can be argued that such aspects will have a positive impact on the sustainable future of our planet. Available research on ozone depletion, which has emerged in recent decades as a serious global concern, shows that the contribution of air transport to the pollution of the environment constitutes less than three percent of the entire transport industry (IATA, "Annual Report", 1992:13).

The current search for a regulatory remedy for the economic difficulties which have besieged the air transport industry since the US Congress enacted the Deregulation Act of 1978 should lead to a regime aimed at reconciling the need to restructure the industry with the necessity of creating a viable economic environment. The different levels of
development in the different parts of the world must be taken into consideration. Restructuring should focus on operational cost-effectiveness and waste elimination in both lateral and vertical directions of the management hierarchy and infrastructural configuration. The regional and global propositions put forward in this thesis will lessen the burden of excessive capacity and spread the unit cost over a wider reach with the minimum overlapping consequences. Since air transport contributes significantly to the social, political and economic fields, its role will continue and its importance will increase.


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APPENDIX I

THE ROLE OF ICAO IN THE DEVELOPMENT OF INTERNATIONAL LAW

by Michael Milde (1991)

The International Civil Aviation Organization (ICAO) was created by the Convention on International Civil Aviation signed at Chicago on 7 December 1944. Today - forty-five years later - there are 180 States parties to the Convention and members of ICAO, and the Convention is for all practical purposes universal.

The Chicago Convention is the cornerstone of the legal regulation of international civil aviation, as well as the basic constitutional instrument under which ICAO as an intergovernmental organization and a specialized agency of the United Nations system has been created and is functioning.

The Convention itself is a true charter of international air law codifying and developing public international law governing the relations of sovereign States with respect to international civil aviation.

International civil aviation is a complex technical and economic activity which creates a wide spectrum of social relations transcending the jurisdictional field of many States; in 1987 for the first time the number of passengers carried by air worldwide exceeded one billion and the projection is that this number will double by the year 2000;
aviation employs the most advanced high technology and the planned future air navigation systems contemplate space-based satellite systems for aeronautical communications, navigation and surveillance. This complex activity requires effective international co-operation and an effective regulatory system safeguarding worldwide uniformity of rules, practices and procedures; thus the legal regulation is a tool and an indispensable element in the process of international management of civil aviation in all its aspects.

ICAO is only a forum and a chosen instrument of its 130 contracting States for international co-operation in the technical, economic, legal and technical assistance fields of civil aviation. ICAO does not have an independent existence at a mandate to exercise regulatory jurisdiction over its member States; its functions and the success or failure of its work only reflect the measure of the political will of States to find an acceptable international solution which would maintain a balance of their possible conflicting interests.

It is a unique feature of ICAO among other specialized agencies of the United Nations system that its executive body - the Council of ICAO composed of 33 states - is vested with a quasi-legislative function. Under Article 54(1) of the Chicago Convention, read in the context of Articles 37 and 90, the Council of ICAO has a mandatory function to adopt international standards and recommended practices safeguarding worldwide uniformity in regulations,
standards, procedures and organization in relation to aircraft, personnel, airways and all other matters in which such uniformity will facilitate and improve air navigation. Without such standardization and uniformity modern international aviation would be unthinkable; over the years the Council adopted standards ranging from personnel licensing, rules of the air, operation of the aircraft, aeronautical communications, air traffic control, search and rescue, accident investigation to new problems connected with aviation security and regulation of the carriage of dangerous goods. Worldwide uniformity of such standards and procedures is a safeguard of safety and efficiency of international civil aviation.

The standards and recommended practices, adopted by the Council by a two-thirds vote of its members, are grouped in 18 Annexes to the Chicago Convention; this, however, does not mean that these Annexes are an integral part of the Convention itself; they do not possess the same legal force as the Convention and the designation as "Annexes" is explicitly done "for convenience" [Article 54(1) of the Convention]. Under the terms of Article 38 of the Convention, States have the right, if they find it impracticable to comply in all respects with any such international standard, to file a difference by notifying the Council of ICAO. States are thus permitted to "opt-out" from the provisions of the standards. Does that mean that the standards adopted by the Council are
devoid of any legal significance? The answer must be strongly negative; under Article 37 of the Convention, the contracting States have accepted a legal obligation to collaborate in securing the highest practicable degree of uniformity in regulations, standards and procedures. The practical experience of ICAO indicates an extremely high degree of compliance with the standards, even by States which at a particular time were not yet parties to the Chicago Convention and members of the Organization; the realities of international co-operation in the aviation field make it practically indispensable to comply with the international standards or to curtail aeronautical operations altogether; in this sense, the observance of the standards is often becoming a necessity comparable with the observance of the law of gravity.

In one unique aspect the Council of ICAO possesses an absolute legislative power on a worldwide basis and no State can file a difference against such particular standards: by virtue of Article 12 of the Chicago Convention, the rules of the air over the high seas apply without any exception whatsoever. This is an example, unprecedented in any other international organization, that the executive body of an international organization can, by a vote of two-thirds of its members, create binding legal rules on a global basis.

Apart from the quasi-legislative function of the Council, the Organization has become since 1947 an efficient
forum for the development of international air law and for its codification. It is a somewhat surprising development since the basic constitutional charter of the Organization - the Chicago Convention on International Civil Aviation - does not foresee any function of the Organization in that field.

In the period from 1926 until 1947 it was the Comité International Technique d'Experts Juridiques Aériens (CITEJA) created by the Paris Conference in 1925 which carried out the work of international codification of private air law. The Chicago Convention held from 1 November to 7 December 1944 recommended in a resolution in the Final Act of the Conference that "the various governments represented at this International Civil Aviation Conference give consideration to the desirability of bringing about the resumption at the earliest possible date of the CITEJA sessions which where suspended because of the outbreak of war ...(and that) consideration also be given by the various government to the desirability of coordinating the activities of CITEJA with those of ... the International Civil Aviation Organization established pursuant to the Convention on International Civil Aviation drawn up at Chicago on December 7, 1944." The post-war sessions of CITEJA were held in Paris and Cairo in 1946 and it was there decided to entrust the future work in the field of codification of international air law to the newly established international body created within the scope of ICAO. CITEJA held its last
session in May 1947 at Montreal and decided on its dissolution. At the same time, the first session of the ICAO Assembly adopted Resolution A1-46: The Constitution of the Legal Committee of ICAO and Resolution A1-48: Procedure for the Approval of Draft Conventions; the current text of these Assembly resolutions will be found in Assembly Resolution A7-5 (Constitution of the Legal Committee) and A7-6 (Procedure for Approval of Draft Conventions) adopted at the Seventh Session of the Assembly held in Brighton in June-July 1953.

According to its Constitution, the Legal Committee of ICAO is a permanent committee of the Organization, constituted by the Assembly and responsible to the Council. The duties and functions of the Committee are, inter alia, to study problems relating to private air law affecting international civil aviation and to prepare drafts of international air law conventions and to submit reports and recommendations thereon. The committee is open to membership by all contracting States of ICAO and is composed of legal experts.

The typical procedure for the adoption of an international agreement includes the following steps:

a) inclusion of the subject into the General Work Programme of the legal Committee;

b) a rapporteur is appointed by the Committee or by the Chairman of the Committee to carry out a special study of the subject;
c) a sub-committee of the Legal Committee studies the problem, the report of the sub-committee should include an assessment of the measure of agreement reached and capable of being reached between States upon the problem under consideration, together with an expression of opinion whether the subject is ripe for study by the Legal Committee;

d) study by the Legal Committee; any draft convention which the Legal Committee considers as ready for presentation to States as a final draft shall be then transmitted to the Council together with a report thereon;

e) the Council takes an action on such a draft including the circulation of the draft to the contracting States for comments; in circulating the draft convention, the Council may add comments;

f) such draft convention is thereafter considered, with a view to its approval, by a conference of plenipotentiaries; the opening date of the conference must not be less than six months after the date of transmission to the States of the draft convention;

g) an international conference of plenipotentiaries (a diplomatic conference) is then convened by the Council, adopts the text and opens it for signature and ratification.

The procedure described above appears to be complicated, cumbersome and time-consuming. However, if there is a united and strong political will of the States concerned to adopt an international instrument, the procedure can be
extremely efficient and fast. An example of such a fast procedure may be found in the preparation of an instrument for the suppression of unlawful acts of violence at airports serving international civil aviation: The initiative to prepare such an instrument was presented to the 25th Session of the Assembly by the Delegation of Canada in October 1986; the Assembly adopted Resolution A26-4 urging the Council to expedite the work in the legal field for the preparation of such an instrument; by December 1986 - some three months after the adoption of the Resolution- the Secretariat completed the necessary studies and the rapporteur presented his report; in January 1987 a sub-committee of the Legal Committee prepared a draft; the 26th Session of the Legal Committee met at Montreal in April-May 1987 and finalized the text of the draft instrument; the Council circulated that instrument to States in June 1987 a diplomatic conference convened by the Council of ICAO adopted by unanimous consensus a Protocol and opened it for signature on 24 February 1988; the Protocol entered into force on 6 August 1989 upon ratification by ten States. In the history of international law-making this is an unprecedented example that within a period of less than three years from the first initiative an international instrument for the development and codification of international law was prepared, adopted and entered into force. This experience proves that the ICAO law-making mechanism can be fast and efficient.

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Other examples of the codification and development of international air law resulting from the work of the ICAO Legal Committee are the following:

- Convention on the International Recognition of Rights in Aircraft, signed at Geneva on 19 June 1948 (57 parties);

- Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, signed at Rome on 7 October 1962 (38 parties);

- Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air Signed at Warsaw on 12 October 1929, done at The Hague on 28 September 1955 (110 parties);

- Convention, Supplementary to the Warsaw Convention, for the Unification of Certain Rules Relating to International Carriage by Air Performed by a Person Other than the Contracting Carrier, signed at Guadalajara on 13 September 1961 (67 parties);

- Convention of Offences and Certain Other Acts Committed on Board Aircraft, signed at Tokyo on 14 September 1963 (145 parties);

- Convention for the Suppression of Unlawful Seizure of Aircraft, signed at The Hague on 16 December 1970 (143 parties);

- Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air
signed at Warsaw on 12 October 1929 as Amended by the Protocol
Done at The Hague on 28 September 1955, signed at Guatemala
City on 8 March 1971 (11 parties, not yet in force);

- Convention for the Suppression of Unlawful Acts
  Against the Safety of Civil Aviation, signed at Montreal on 23
  September 1971 (149 parties);

- Additional Protocol No. 1 to Amend the Convention
  for the Unification of Certain Rules Relating to International
  Carriage by Air signed at Warsaw on 12 October 1929, signed at
  Montreal on 25 September 1975 (25 parties, not yet in force);

- Additional Protocol No. 2 to Amend the Convention
  for the Unification of Certain Rules Relating to International
  Carriage by Air signed at Warsaw on 12 October 1929 as Amended
  by the Protocol done at The Hague on 28 September 1955, signed
  at Montreal on 25 September 1975 (25 parties, not yet in force);

- Additional Protocol No. 3 to Amend the Convention
  for the Unification of Certain Rules Relating to International
  Carriage by Air signed at Warsaw on 12 October 1929 as Amended
  by the Protocol done at The Hague on 28 September 1955 and at
  Guatemala City on 8 March 1971, signed at Montreal on 25
  September 1975 (19 parties, not yet in force);

- Montreal Protocol No. 4 to Amend the Convention for
  The Unification of Certain Rules Relating to International
  Carriage by Air signed at Warsaw on 12 October 1929 as Amended
  by the Protocol done at The Hague, signed at Montreal on 25
  September 1975 (21 parties, not yet in force);
- Protocol to Amend the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface signed at Rome on 7 October 1952, signed at Montreal on 23 September 1978 (3 parties, not yet in force); and


The most successful among these instruments are those which address aviation security against criminal acts: The Tokyo Convention of 1963, The Hague Convention of 1970 and The Montreal Convention of 1971. In these instruments the international community responded efficiently to the growing threat to the safety of international civil aviation and these instruments now belong to the most widely accepted instruments of codified international law; there are 136 parties to The Tokyo Convention, 142 parties to The Hague Convention and 141 parties to The Montreal Convention, and the Conventions are for all practical purposes universally adopted and form a part of general international law.

The experience of the last more than forty years proves that ICAO has established an efficient mechanism for the codification of international air law and for its development.