Seminarios

A Modernizacao do Transporte Aero

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Modernizing Aviation Rules

- A case study

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Summary

The International Business Aviation Council (IBAC) was invited to make a presentation to the Brazilian Seminar on Modernizing

Air Transport, held in Sao Paulo on March 16, 2000.

This Paper presents the personal views of the author and describes two case studies applicable to the modernization of aviation safety rules.

The Paper advocates a partnership between all sectors of the aviation community in the development of both a modern process for keeping aviation rules current and describes how this process can be used to restructure the rules. The Paper makes a case for the similarities between Brazil and Canada in support of the Canadian case studies.

Introduction

Good afternoon ladies and gentlemen.

I would like to thank the seminar organizers for taking the very important initiative of bringing together the partners in Brazil's program to modernize the air transport system. Partnership is key to what I will say over the next few minutes. The aviation community must work together - in a partnership - to build a successful, modern transportation system. The aviation community consists of all participants – be they government regulators, public or private service providers, airlines, business aviation, recreational aviation, manufacturers, repair shops, training establishments, and many others, in this broad complex aviation system of ours.

I am a strong believer in the very significant importance of getting everyone together, to clearly identify and discuss openly the issues, and to then develop together the broad strategies for

designing the future system. Sessions such as this should lead to the development of a strategic plan, a blueprint for work to be done in the partnership.

You have an impressive program. It clearly highlights the substantial interest in modernizing the Brazilian air transport system.

Now - what can I offer to assist you? Hopefully, I can give you some food for thought. I will present some personal views as well as a couple of actual case studies. Since the examples come from my native country, I will try to link the Canadian aviation environment to Brazil's, as there are many compelling similarities. I believe it is very important to make this comparison, as I strongly believe that the concepts I have to propose are not for every country. Not all nations have aviation systems sufficiently mature for a democratic, open, rulemaking process as the one I will propose in the next few minutes.

The two case studies are:

1.   consultation in rulemaking; and

2.   modernizing aviation rules.

Before I divulge these two experiences, I will present a foundation that hopefully will make the cases more real for you.

The purpose of my presentation is to assist you in your conceptual thinking for the development of a strategic plan for a modern air transportation system. Clearly, the system in Brazil must be developed by Brazilians; however, the experiences of others can assist in formulating your ideas.
Deregulating in an Aviation Environment

My first point pertains to the broad concept of deregulation.

In an air transport environment there are two primary types of regulation: economic and safety.

Economic regulation is established for many diverse socio-economic reasons, such as:

q   ensuring transport access to remote areas;

q   protecting a developing industry;

q   encouraging or discouraging competition;

q   fostering growth in the economy and the air transport system;

q   etc..

In general, most countries establish economic regulation when industries are young and in need of support. However, as the system matures, economic regulation is usually phased out – thus opening the door to the marketplace.

For example, in Canada, deregulation of the air transport industry occurred in the middle 1980's. The only economic regulations left in place were those requiring insurance and those limiting foreign ownership. Recently, new regulations were promulgated to ensure new companies have sufficient operating capital to be self-sustaining for their first three months of operation.

Alternatively, safety rules are here to stay. Safety cannot be deregulated. The public will not allow it. However, there is a place for modernizing safety rules. In fact, economic deregulation demands modernization of the safety rules.

Aviation is one of the most heavily regulated of industries. This is not likely to change, and if anything, the degree of regulation will likely increase. However, we must find a way to regulate intelligently. Bad safety rules can be hazardous.

Most of what I have to say this afternoon pertains to developing good safety rules. I am assuming that economic rules will be gradually phased out in a mature air transport environment.

Foundation of Experience

Before I present the two case studies, I would like to build a small foundation, so you will understand better the basis for my presentation.

For example, you may well ask why an individual representing the international interests of business aviation would be here, talking about partnership in rulemaking. The answer is twofold:

1.   First –I am speaking on behalf of business aviation, as a representative of the community. The Brazilian Association of General Aviation (ABAG) is one of IBAC's members and is keenly interested in participating in the development of Brazil's future system. The ideas I have to present appear to be in harmony with ABAG's concepts for the future.

2.   Secondly - most of what I have to say derives from my previous experiences before I took on my present role in business aviation.

The partnership concepts I will present are personal ideas; however, they were actually put to practical application in Canada. As mentioned my background is not only related to business aviation management; I have experience:

q   as an operational transport pilot;

q   an evaluation and training pilot;

q   manager of various systems studies and programs;

q   manager in the air navigation services environment;

q   manager of a large fleet of aircraft with an Air Operator Certificate;

q   regulator [as DGCA in Canada]; and

q   adviser to ICAO on the safety oversight audit program.

Management of change is made easier if you fully understand the problems and the need to change. Furthermore, it is much-much easier if you have a vision of the system you would like to see at the end of your journey. The project management steps are necessary. These are the steps that must be taken to systematically work through the myriad of detail. Nevertheless, these steps are useless if you are going the wrong way.

The case studies that I will outline are based on a number of years of experience as both a regulated person, manager of a regulated organization, and as a regulator. However, the vision of one person is not enough. The vision must be in step with the needs of the community. It is up to you to decide if the ideas fit the Brazilian reality.

Canadian/Brazilian comparison

Next - I would like to explain why I am making a link between the Canadian experience and your proposals in Brazil.

There are a number of compelling comparisons:

Both countries have vast geographic areas. Both countries have many remote communities in sparsely populated areas. Both countries were early aviation pioneers. Aviation in both countries was instrumental in economic development. Both countries rely heavily on air transport. The proportion of aircraft to population is high in both countries. Both countries have an aviation manufacturing industry. Both governments have embarked on privatization strategies. Both countries have leading high-technology foundations.

In summary, aviation is critically important to both, more so than most countries in the world. I can think of very few countries for which a national aviation strategy is more important than in Canada and Brazil.

Consultation in Rulemaking

The next point I would like to make before I describe the two case studies is to emphasize the critical importance of establishing an effective rulemaking process.

By rules, I mean the legislation, regulations, incorporated standards, orders and directives, all of which make up an aeronautical code.

Bad rules will be compromised. The aviation community will find ways around them, and safety will be compromised. Furthermore, bad rules almost always create economic hardship for the industry. They require compliance with unrealistic demands, resulting in duplication, bureaucratic delays and other hardships. Bad rules also result in barriers between the industry and the safety regulator. Bad rules foster poor communication, again compromising aviation safety.

Aviation is an extremely complex industry. It is an interdependent industry, in that each part relies on the other parts to ensure efficient and effective operation of the whole.

A responsible rulemaking process recognizes that both the civil aviation authority and the aviation industry are responsible and knowledgeable in the aviation disciplines. A mature, safety conscious public holds both accountable.

The features of a good rulemaking process are:

1.   A well-documented, consistent and systematic process for rule making.

2.   Cooperative, in that the process is a joint venture between government and the community.

3.   A completely open and accessible process (the door is always open).

4.   Consensus is the ultimate objective.

5.   The process should ensure 'problem identification' and resolution, with rule making being only one of the solutions (others being training, etc.).   Costs of all options should be calculated.

6.   Detailed discussion should be delegated to committees or work groups, designed to parallel the regulation structure and make-up of the industry.

7.   Rules should not be drafted until the problem is fully assessed.

8.   The process must be all-inclusive (no rule created without submission to the rigorous system).

9.   The government must retain decision–making authority, specifically when consensus is not achieved.

This process recognizes a partnership between the government and the community. It is a joint venture. It is a cooperative, responsible arrangement that recognizes the community as capable and conscientious. It is an open forum to which the aviation community and public are welcome.

The objective is consensus. All positions and concerns are presented and alternative solutions, with their positive and negative implications, are assessed. It recognizes that responsible people will do the right thing, particularly in a group environment. Responsible people will jointly find a responsible solution; this may be in the form of a regulation or it may be in the form of an education program. Sometimes there may be agreement that no problem exists.

Government will loose the trust of the community if rules are drafted before a need is clearly identified. Therefore, drafting should commence only when the need has been identified by consensus. The government will usually do the drafting, although this could be done by the industry in some circumstances. The draft should then be tabled with the responsible committee or work group to determine if it satisfies the identified need.

The reality is that consensus may not be possible, although if a responsible rule making process is used I feel it can be reached in over 95% of issues. When consensus cannot be reached a "decision maker" is required; this must be the responsible official in government. Aeronautical legislation in each country places the decision-making authority with different levels (i.e. Cabinet, Minister, Secretary, Administrator, Director General or Director). When consensus does not exist, the decision-maker must have on hand all of the alternative positions and a responsible decision made based on a review of all facts and positions.
Case Study in Consultative Rulemaking

The two cases that I would like to outline are from my Canadian experiences.

The first involves a change made to the rulemaking process. The second was the product of the new process –a complete restructuring and renewal of the Canadian Aviation Regulations.

In past years, the Canadian system for establishing rules was very formal.   Although there was consultation, this was done with each sector of the community separately. The industry did not know the positions of the other sectors and hence could not develop a full understanding of each other's pressures and constraints.

Rules were usually developed in isolation and then exposed to the industry in a draft form. It was then very difficult for the government to change its position, largely due to the considerable variation of interests and constraints.

Often these rules resulted from some isolated incident where emotion took over from practicality and sound judgment.

There were many other faults with the Canadian system, but this is the capsule view. It was not a good system. Since it was not a good system, there was mistrust both inside government and outside. It took, on average, approximately five years to produce a regulation. This is not acceptable.

When I developed a proposal to resolve the problem, I was shocked at the level of immediate support. Almost overnight, the Departments of Transport, Justice and our federal Cabinet Secretariat agreed to the proposed solution, and committed resources to implementation.

The solution was the Canadian Aviation Regulation Advisory Council (CARAC).

The purpose of CARAC was to establish a system to ensure all participants in Canada's aviation programme had the opportunity to fully participate in rulemaking. The system was designed to be completely open. There was to be no secrets.

CARAC was established with a Council that met once per year. The Council, consisting of both government and industry representatives, established the rules for CARAC operation. These were published in a CARAC Manual, which described the process and responsibilities. However, most work of CARAC was conducted through a number of technical committees. These committees were structured to correspond to the rule structure, so that sectors of the industry need only attend the committees of interests to themselves.

These technical committees met on an as-required basis, which generally were three to four sessions per year. The technical committees made recommendations to an executive decision-making committee, chaired by the Director General of Civil Aviation. The DGCA committed to the industry that if there was unanimous agreement at the technical committee, he would accept the recommendations.

However, if there was a split, and dissenting views were evident, the DGCA would impose a decision.

Therefore, there was a compelling reason for the community to compromise so that a unanimous position could be established.

The agenda, administration and recording for the technical committees were provided by a Secretariat. One of the principles of CARAC is that the rules cannot be introduced on an ad hoc basis. The first step must always be problem definition. When there is agreement that a problem in fact really exists, only then will solutions be sought. The solutions may be training, education, information dissemination - or a regulation. If it were agreed that a safety regulation is the optimum solution, there are would then be agreement on what it should contain before the lawyers start drafting.

The community was therefore fully involved. The community understood the need for the rules and participated in their development.

As a result, the industry accepted the rule, making the job easier for the regulator. The community was committed because it was part of the process.

Although there is increased workload in administering this process, the results are impressive. The time required to produce rules is considerably reduced, as there is no longer continuous argument, redrafting and challenge. The government fairness watchdogs are satisfied because of the community participation. No one can claim that they were not involved as the door to discussions in the technical committee is always open. If someone is not a party, it is because they have chosen themselves to not participate –there are no excuses.

Although there were initial start-up problems with CARAC, the system has worked well. Initially, some sectors of the community were not happy that they did not win every debate, but eventually they learned the art of listening and compromise. They learned to understand the problems of the other sectors and to work with each other to create an optimum solution.

In my next case study, I will describe how the Canadian Aviation Regulations were developed. I will describe how the old regulations and orders were thrown away and a completely new set of regulations developed through this consultative process - and it was all done in three years. Considering that it used to take, on average, five years for a single regulation, and that a complete new structure was put in place in three years, this is testimony to the effectiveness of CARAC.

Case Study 2 - the New Regulations

Now I would like to briefly describe the new safety regulations system established in Canada. As mentioned earlier, deregulation on the economic front was the first step. Essentially no economic regulations remained after the middle 1980's. However, we were left with an inadequate safety regulation system. Canadian legislation was changed in the early 1980s as part of economic deregulation, but the safety regulations and orders remained.

Like Brazil, Canada was an early aviation pioneer. Aircraft have been flying since early in the last century. The regulatory system was initially established in the early 1930s. Rules were added on an ad hoc basis for seven decades, to the point where the regulations were a confusing collection of regulations and air navigation orders, developed by adding levels of confusion on top of levels of confusion.

Problems included: extensive duplication; language written by lawyers hence very difficult for aviators to understand; outdated requirements; and most importantly, the government safety inspectors did not understand many of the requirements as they were outdated and therefore were in no position to effectively encourage compliance nor enforce the rules.

The solution in this case was the Canadian Aviation Regulations (CARS).

We realized that the existing hierarchy of regulations and orders was confusing and that there was no way to effectively fix the problem. We decided to throw it all away and start from the beginning.

We reviewed the ICAO Standards and Recommended Practices (SARPS), the U.S. FARS and the European JARS, but considered none of these to be suitable. After considerable review and discussion, we decided to build a complete new regulatory infrastructure. However, we did make an effort to harmonize as must as possible with international requirements, particularly where there was a reasonable degree of consistency.

The overall structure of the CARs was designed to parallel the makeup of the industry. We wanted as much as possible for each sector of the community to have a section of the CARs that they could call their own. Each sector helped us develop the rules governing their community. At the same time we tried as much as possible to parallel the general outline of the ICAO Annexes.

I won't describe in detail how we developed and promulgated the CARs in three years. However, one first step is worth describing.

Before we started on the detailed work, we formed a panel of very senior individuals from the aviation community. These were Chairman of the Board, from manufacturers, airlines, labour groups and associations. We reviewed every existing regulatory requirement with the panel, suggesting which requirements should be retained in the new CARs and which should be abolished.

We agreed that 20 percent of the old rules made no sense in the new world of aviation. Of the remaining, we modified 50 percent. The result was a very large change before the technical committees started their work. The broad principles established in panel discussions were also very helpful to the individuals working at the technical and operational level.

Many principles were established for the new rules. They were to be, as much as possible, in plain language. They must represent modern requirements. They must represent the norms of the good aviation operators. They must be practical and based on an evaluation of costs vs. benefits.

The new rules were promulgated approximately five years ago. The consultative process has been used since that time to ensure that the requirements kept pace with the changes in aviation technology and operational procedures.

The community has remained fully involved on an ongoing basis.

Summary

The experiences I have described resulted from particular problems and the solutions derived to fix the problems. I have presented these concepts and case studies in the hope that you will find them beneficial in your discussions regarding the modernization of air transportation in Brazil.

I am sure many of you have been exposed to management school case studies that clearly illustrate that the analysis and decision derived from the consensus of a group of people is much more accurate than analysis and decisions of one person. It is amazing how productive a cooperative partnership can be.

I wish you good luck and good management in your journey.

Thank you.