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# AIR ADMINISTRATION IN CANADA

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# AIR ADMINISTRATION IN CANADA SHOULD GET OFF TO CLEAN START

This Country Has No Mistakes of a Wartime Air Board to Rectify Before Settling Down to Its Future.

### INDIVIDUAL INTEREST TO DECIDE PROGRESS

Policy of Leaving Everything to Official Leadership and Encouragement Will Not Be Best For Development of Aviation.

Approved by the Hon. A. L. Sifton, Chairman of the Air Board of Canada, for publication.

The situation with regard to aviation is a curious one. It was only in 1909 that Blériot made the first flight across the English Channel, and in the five years that intervened before the commencement of the war, flying hardly developed beyond the experimental stage. During

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the war it underwent enormous development and expansion, all, however, from a special point of view, namely, war efficiency. Machines were built solely for war purposes; personnel was trained solely for war duty. Granted increased military strength, money was practically no object, and little, if any, consideration was given to prime or operating costs. The air situation is rather more extraordinary than would be the position of motor transport if, for fifteen years of peace, the automobile had been developed solely for, say, the purpose of the game of polo, and personnel in tens of thousands had become engaged in developing it and its connected industries with the sole object of winning matches. If then motor polo was suddenly prohibited, to adapt automobiles to the thousand and one useful purposes for which they are now employed would involve a completely new orientation by the individuals engaged in their design and manufacture and a seeking out of new uses by them and all others interested.

# Used by Governments Only.

With regard to air, the difficulty is even greater, since for purposes of war the belligerent Governments have been the sole possible purchasers of aircraft, and almost the sole employers of air personnel. There is, consequently, an inclination on the part of many people to look to the Government to continue to bear the whole burden and a disinclination to individual effort. The problem is, consequently, twofold. It is essential not only that the thinking of all flying and manufacturing personnel and of the public should be directed to the use of aircraft for the purposes of peace, but also that they should realize that an attempt by the Government to do everything must necessarily involve stagnation. A Government department must be prepared to convince Parliament of the soundness of its proposals before money can be obtained, and Parliament—as well on account of the number of its members as for other reasons—is a much more difficult body to convince than a Board of Directors. In so experimental a field as civil flying an attempt on the part of the Government to restrict all other activities except its own would inevitably mean the arrest of progress. The rapidity of advance in any science is generally in proportion to the number of minds independently engaged upon the solution of its problems.

Commercial flying is important as well from the military as from the civil point of view. No country can, in peace, afford indefinitely to maintain a large air force

exclusively devoted to military duties. Either the expense of the maintenance of such a force would be enormous or its strength would be so small that its effect in war would be unimportant. War strength in the air must necessarily depend upon commercial air strength. Upon a commercial air personnel, and upon aircraft used for commercial purposes every country must principally depend for its flying officers and airmen and for its military aircraft. The encouragement and development of commercial aviation is, consequently, the most obvious and important duty of an administration which hopes to have available, in the event of foreign attack, an air force to assist in resisting it.

### The Position of Canada.

In this respect Canada is probably in a better position than any other of the belligerent countries. It alone, of all the belligerents, came out of the war without a developed military air organization, and the adoption at the last session of Parliament of the Air Board Act places Canada in a most favourable position in regard to the development of all strength, both civil and military. That Act constitutes a board of seven members, headed by one of the Ministers of the Crown, and having upon it one person appointed by

the Minister of Militia and Defence to represent the land forces, and one appointed by the Minister of Naval Forces to represent the naval forces. The present remaining four members have been selected from among the personnel of some of the departments of Government interested, but they may be replaced, as the organization develops, by individuals with wide air experience. To this board is entrated every governmental activity in relation to air, including not only the widest powers (under the Governor-General in Council) of regulating commercial air traffic of all kinds, but also of providing for the constitution, discipline, pay and all matters connected with the organization of a military air force.

# Making "Rules of the Air."

Acting upon the general principles above indicated, the first care of the board will be the preparation of regulations governing air traffic generally. In so doing, it will have the benefit of the convention relating to air navigation which was drawn in Paris during the Peace Conference, and also of the English Air Navigation regulations published at the end of April last, and prepared with a knowledge of what the International Commission in Paris was likely to report.

The convention has not yet been ratified, but its value as a guide, even if not ratified, is very great, indeed, since it goes into somewhat minute detail. It provides against any contracting State permitting the flight within its territories of an aircraft which is not registered, and confers upon each state the right to fly with its registered aircraft over the territory of all other contracting States. It lays down elaborate rules with regard to lights and signals, customs regulations, maps and meteorological reports, provides for the issue of certificates by each contracting State to some or all of the pilots, engineers and navigators engaging in an aerial traffic, and lays down a minimum standard for such certificates.

Carrying out the principles of the convention the English regulations require every pilot of an aircraft to obtain a Government certificate before he goes into the air except for training purposes. and distinguishes between certificates to pilots of private aircraft and pilots of freight and passenger aircraft. It is only for aircraft of the latter categories that certificates are required for navigators and engineers. The regulations further require certificates in the case of those ground engineers who must, on every day before the flight of a passenger or freight aircraft, go over it and certify to its fitness on that day for flying.

## Room for Private Enterprise.

Canadian regulations along these lines are now under consideration by the Air Board and their issue should not be long delayed, although the number of difficulties to be met is numerous. It is important to impose no handicap on the development of air navigation which, consistently with the observance of existing laws and the safety of the public, it is not absolutely essential to impose. The problem presented, therefore, is to find means of providing those very necessary safeguards, while at the same time avoiding anything in the nature of unreasonable obstacles or burdensome restrictions. In this regard the action taken in other countries is not altogether helpful. each of them air navigation is still more or less dominated by the military organization created during the war. These organizations do not, perhaps, yet fully realize that their respective countries are now at peace, and that future war strength depends primarily upon the efficiency of the civil air administration and the development of commercial air navigation. Their influence, consequently, tends in the direction of air activities which are capable of being performed by military organizations, rather than towards developing the commercial possibilities of the air.

At least military ideas are apt to colour the Governmental attitude toward air navigation. In Canada, on the other hand, we have no existing military organization. Attention can be primarily devoted to commercial flying, and to giving it every encouragement, which circumstances and prospects justify. The Air Board is not, however, likely to suggest that Parliament should provide the money, equipment and facilities necessary to do the pioneer commercial work. It is unlikely, for example, to present machines to companies which propose to operate them for commercial purposes, or by the promotion of exhibitions or races to direct attention to aviation in its most dangerous and least useful form. It is also improbable that the Air Board will find it advisable to acquire many more airdromes than are required for actual Government duty, and this number is likely to be exceedingly small. It would be practically impossible to provide airdromes on the same basis as wharfs and harbour facilities. There are comparatively few places, even among those situate on the water, which require wharf or dock accommodation, or are capable of development, as harbours. On the other hand, every city and town, inland and coastal, and, indeed, every village throughout the country, is a possible terminal or way-port for aerial traffic. An attempt on the part of the Government to assume the responsibility for the general provision of aerodromes would, in view of the comparatively small amount of money which must necessarily be available, result (by the discouragement of local initiative) in the retardation of the development of air navigation, which, to a degree still little understood, depends upon ground organizations, rather than upon mere flying capacity. The only possible avenue for Government intervention in regard to the acquisition of aerodromes is in the direction of the provision of emergency landing grounds on recognized air routes, upon which facilities have been provided by the municipalities, but these are separated by such distances that intervening landing-grounds are necessary to the safety of aircraft on the route. Terminal landing-grounds for every urban area must necessarily be provided by the inhabitants in that area. An urban municipality without an aerodrome will not be on the air man.

# Threefold Activity.

Apart from the provision of intermediate emergency landing-grounds, the activities of the air administration will be threefold.

In the first place, commercial air traffic must be wisely regulated. It must be carried on by certificated officers who can be depended upon to make it (as it can doubtless be made) as safe as traffic by railway. The essentials of good aerodromes under our conditions must be determined and municipalities advised as to the selection and upkeep of grounds; the establishment of air routes must be considered and the selected routes mapped and defined: meteorological inquiries must be pursued in co-operation with the meteorological service and the results distributed and compared; methods of marking air-harbours and of signalling must be studied and improved. In short, everything possible must be done to increase the safety of air navigation to make its development as easy and as rapid as the economics of that navigation permit.

Secondly, distinctively Government duties, such, for example, as surveying and forest protection must be undertaken, if, as is expected, their performance by air is likely to yield more satisfactory, and, from a national point of view and in the widest sense, more economical results. Experiments must be undertaken to ascertain whether Canada's great northland is capable of development by air. It can certainly be so explored with

a rapidity and thoroughness possible in no other way. The preservation of the forests on the public domain can probably be ensured by air patrols, and other avenues of activity will doubtless be opened up as the field is intensively studied.

Finally such a system must be worked out as will provide the country with an air force available for duty if a threat to the country is made. The creation of such a force involves some difficult problems. It takes very much longer to train an air fighter than it does to train a fighter on land. The degree of skill required is of the highest, and the equipment made use of is not only enormously expensive, but, unlike ordnance, it very quickly becomes obsolete. In proportion to its population. Canada has to-day an air personnel probably larger than any other country, and it will be one of the first duties of the Air Board to consider how that personnel can be organized and how wastage from it can be replaced. It seems clear that it is financially impossible that that organization should take the form of a large professional air force. Means must be found to create an effective organization, most of the members of which are primarily civilians and are yet trained and ready for war.

If the Air Board intelligently regulates commercial aviation, carefully investigates the possibility of performing Government services more efficiently by air than by present methods, efficiently carries out such Government services as are undertaken, and so lays the foundation for a Canadian Air Force that the organization built up without undue expense in peace may be depended upon in war, it will have difficulties enough to overcome and problems enough to solve without attempting to monopolize the air. That, like the sea, must remain free to those who desire to use it on "their lawful occasions."

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