

physiology of organisms. Natural scientists elsewhere had given up much of their field activities "in favour of the laboratory, the microscope, and the experiment." (p. 9) Macoun went against this trend; his reputation was that of a collector, and it was a reputation which he personally took great pleasure in endorsing.

Interestingly, Macoun would not even classify his own specimens. Such tasks he handed to scientists in the United Kingdom and the United States. As Waiser points out, this practice meant that foreign scientists were organizing Canadian flora and fauna, despite the fact that the Geological Survey of Canada had a full-time botanist on staff. Although Macoun's interests may have been very limited, his fieldwork was exactly the kind of science which federal politicians of the day understood.

Waiser's critique is most effective when assessing the impact of Macoun's career on late nineteenth-century Canada. Perhaps more than any single individual, Macoun was responsible for creating the false impression that Canada's frontiers could be settled with relative ease. As a "self-righteous, outspoken, abstinent Conservative and an ardent imperialist" (p. 63), Macoun was sensitive to the federal government's aspirations in western Canada. It was easy for him to recognize that "Ottawa expected positive, practical information of immediate economic value. . ." (p. 204). He thought nothing of using his knowledge of Canada's natural life in order to portray Western Canada as a Garden of Eden. "He was convinced that the natural flora of a district indicated the character of the soil and climate and hence the suitability of the region for cultivation purposes" (p. 12) and was always more than willing to make pronouncements on the agricultural potential of an area, based solely on his own botanical surveys. Interestingly, these pronouncements were always very optimistic. For example, in one ten-year period, from 1872 to 1881, he made five expeditions through the Northwest Territories, and each time Macoun returned entirely convinced of the untold potential of the region. Whereas others warned of summer frost and insufficient moisture, Macoun saw gardens of plenty. He felt that it was his patriotic duty to reveal the country's potential. Of course, if his optimistic assessments of the nation brought attention and further funding for his work, so much the better. One cannot help but question many of Macoun's motives. He was a staunch Conservative and wanted to serve the best interests of his government, but expected rewards in return. A significant part of *The Field Naturalist* is devoted to showing how Macoun manipulated "the system" to ensure his own security.

The Field Naturalist is definitely a success. The book is an excellent companion to other discussions concerning Canadian perceptions of the Northwest, such as Owsram's *Promise of Eden* and Warkentin's *Western Interior of Canada*. It is also a worthwhile addition to the small but growing body of studies which examine the complex interplay between political nationalism, economic development, and scientific inquiry.

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Canada and International Civil Aviation, 1932-1948. DAVID MACKENZIE. Toronto: University of Toronto Press, 1989. x, 314 p. ISBN 0-8020-5828-0.

That transportation forms a large component of nearly all aspects of Canadian history has become a near-platitude, and, like most platitudes, it is a basic truth. Strangely

enough, the uniquely twentieth-century transportation mode of aviation has received little scholarly attention in Canada, and popular writing tends to travel the well-worn channels of bush flying and narrative coverage of highlights. It is therefore pleasant to see a work such as David MacKenzie's which presents a competent overview of the evolution of international aviation during the most significant years of its development, as a background to a detailed examination of Canada's role in the process.

The three-dimensional nature of air travel meant that there were no precedents for resolving the complexities of international civil aviation after the First World War. This fact was especially evident in the case of transoceanic routes in which both technical progress and geographic location were major factors. Canada came late on the scene because of a deliberate postwar concentration on internal and "new frontier" aviation, but the course of events and the prodding of a few farsighted individuals eventually had their effect. From that point, a number of the well-worn but valid themes which dominate Canadian history of the era appear at intervals: the ambivalent attitude toward the "Empire Connection;" the insistence on a special relationship with the United States; the much-fancied role of the honest broker or mediator between the United Kingdom and United States; and the growing effort to play a real and independent part on the international scene. The fact that the subject seems to serve as a case study of Canadian national development betokens no lack of imagination on MacKenzie's part, but rather a working out, in an entirely new field, of political and national forces observable elsewhere.

Essentially, the years mentioned in the book's title consist of two main periods, separated by a partial hiatus during the Second World War, and illuminated (from the book's point of view at least) by continual conferences, negotiating sessions, and wheelings and dealings. In 1932, the Canadian government had things on its mind other than international civil aviation, but was gradually awakened to the fact that the world would, almost literally, pass the nation by if some action were not taken. The next few years, marked by negotiations concerning eventual trans-Atlantic commercial aviation, saw Canada handicapped by the lack of a "chosen instrument," that is, a national airline, and with no definite policy except a pathetic insistence that the traditional St. Lawrence route with a Montreal terminus be used for any trans-Atlantic services. By the end of the decade, however, the country did have a firmer policy, a national airline, and a cross-country airway, plus a government department at least partially devoted to civil aviation. How international aviation would have evolved from this point will never be known. The Second World War intervened, resulting in a massive leap forward in aviation technology, a great reduction in normal civil flying, but an even greater increase in war-developed air routes and expertise. At war's end, there were new questions. Would the British Empire stand firm and prevent United States domination of air transport? To what degree would civil aviation be internationally regulated? Would multilateral or bilateral agreements be the norm? A newly confident Canada was heavily involved through the three post-war years which conclusively shaped the face of international civil aviation.

Despite the fact that much of the book is devoted to the subject of conferences and negotiations, MacKenzie's lucid style of writing ensures that interest does not flag. This strength is particularly valuable in light of the large quantity of detail which he obtained from research in both primary and secondary textual sources, and from interviews in the various countries involved. It is this depth of research which not only maintains interest

but adds to the significance of the work by showing “both sides of the hill.” His characterization of many of the main protagonists is excellent. This reviewer cannot fault MacKenzie in his perception and narration of the main events and their significance. The background which concerns the evolution of international air transport over the period, while generally adequate, has instances of incompleteness and superficiality as if it were not the author’s main interest. Nevertheless, this does not interfere with or detract from the main thrust of the book.

The bibliography is massive, although it is surprising not to see David Beaty’s *Water Jump*, likely the most evocative popular narrative of trans-Atlantic aviation. The notes and citations are copious and complete. There are two criticisms, although these are not directed specifically at MacKenzie but at the general run of historical authors and publishers. One is that archival sources (for example, record groups at the National Archives of Canada) are only referred to in the list of sources by number and title, without further breakdown. Surely, if it is possible to list over 140 publications, some presumably of minor significance, it would be possible to list the main files consulted, even if they were not cited. From the archival point of view, it is impossible to verify the completeness of this author’s research, and difficult for a future researcher to follow in his footsteps. There are, for example, many Transport Canada files on the subject, dating from 1932, which are not cited, although Record Group 12, the records of this federal department, appears in the list of sources. Did MacKenzie consult these files but feel that they essentially duplicated other sources — quite a legitimate viewpoint — or did he not? The other criticism is that file citations include the file number and document title but not the file title, surely the most vital part of the designation context.

The book itself is well produced, although the use of an illustration of a bush flying scene as the cover of a work on international flying defies understanding. More careful review would have caught some typographical errors and prevented the name of Woods Humphrey of Imperial Airways being consistently spelled as “Humphrey.” Illustrations are confined to a frontispiece and four pages at the front of the book; this half-hearted ritual genuflection towards the altar of publishing respectability should be beneath a press of University of Toronto’s stature. Either have a reasonable selection of appropriate half-tones inserted into the text at relevant positions (when, as in this case, no special paper stock is used for illustrations) or, if special stock is employed, have at least this same number of illustrations at one or more points within the text. If not, eschew illustrations altogether. These are minor objections. MacKenzie has turned out a book that deals with an important subject with both historical and literary competence.

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