

POLAR WINDS: A CENTURY OF FLYING THE NORTH. By DANIELLE METCALFE-CHENAIL. Toronto, Ontario: Dundurn Press, 2014. ISBN 978-1-4597-2379-5. 224 p., colour and b&w illus., glossary, notes, selected bib., index. Softbound. Cdn\$28.99. Also available as an eBook.

Author Danielle Metcalfe-Chenail introduces this encyclopedic history of a century of flying in Canada's North by stating that, "This book is not an exhaustive history but a representative one" (p. 15). She has accomplished her mandate, and more. *Polar Winds* covers inaugural flights in Canada's North, from balloons to fabric-covered bi-wings, and flights of First World War leftovers piloted by returning wartime aviators exhibiting their barnstorming aerobatics skills. It describes basic bush flying, transporting passengers and supplies to mining claims; flights servicing mapping, medevacs, missionaries, and corporate-funded research expeditions; and up through the century, to include aerospace defence systems and modern airlines.

From the first chapter, aptly titled "Gold, Glory and Spectacle," the reader is treated to a series of fascinating stories describing inaugural northern flights in balloons, dirigibles, and flying boats. The Klondike goldfields brought thousands of fortune-seekers to Canada's North, enduring bitter cold and rough terrain on their overland scramble for riches. But the entrepreneurial classes were soon able to employ a new system for getting to their mines—by air.

To orient readers, the initial chapters of *Polar Winds* are augmented by a full-scale map of Canada and its northern territories, Alaska, and Greenland; numerous photographs depicting these first aviation efforts; and a colour poster of a New York stage show ("The Air Ship") dramatizing a winter airship expedition to the Klondike and Dawson City.

By 1920, intrepid aviators were flying into the uncharted northern wilderness from American bases from Seattle to New York, and in Canada from Quebec and Ontario. Here began stories of engineers and pilots whose names have become part of aviation lore, who survived and triumphed from myriad setbacks during these explorative flights. Innovative "bush repairs" to damaged aircraft were often made in wilderness conditions; for example, air engineer William J. Hill and Hudson's Bay Company boat engineer Walter Johnson spent two weeks at Fort Simpson fashioning a new prop out of sleigh boards and moose glue (p. 41–42).

Polar Winds rapidly brings readers into the exploration and development arena for mines and minerals, which quickly broadened the usage of aviation to reach across Canada's northernmost territories and provinces. The author frequently notes contributions of Native Northerners, who, when asked by wise explorers, provided advice regarding food and clothing suitable for extreme climates, as well as directional guidance and weather warnings, which saved many lives. These corporate-funded expeditions were augmented by topographical surveying and mapping of northern sites by the Canadian Coast Guard, Royal Canadian Air Force, and aviation and mining companies,

and the establishment of far-flung Royal Canadian Mounted Police posts gave the North an essential Canadian residency.

It was not easy flying. In 1929, the head of Domex, Colonel Cyril D.H. MacAlpine, with pilots Stan McMillan and Major G.A. "Tommy" Thompson, their mechanics and passengers, became lost on what famously became known as "The MacAlpine Expedition." The search for the missing two aircraft and their occupants "became the most famous aerial undertaking of the decade—and the largest ongoing aviation search in Canadian history" (p. 48).

No matter how arduous, such explorative flights paved the way for the establishment of air mail routes and scheduled runs, cargo hauls and medevacs, all deemed important and necessary to residents of northern Canada. Andy and Esme Cruickshank bravely established Yukon Airways and Exploration Company in 1927 and set up the first scheduled airmail and passenger route in the North, encouraging others to take up the challenge. In 1929, "Punch" Dickins made several flights north from Edmonton with mail, significantly arriving in Aklavik on July 1st. The author notes, "That trip he logged thirty-nine hours flying time over eleven days and about 6,500 kilometres—a trip that Dickins estimated would have taken two years by boat, canoe and dog team." Dickens perceptively commented, "It was then that I knew that the airplane was going to change the entire way of life of the people of the North" (p. 57).

The saga of the "Mad Trapper of Rat River" brought aviation into a new field, aiding the police and ground-bound vigilantes to spot and track a criminal. In 1932, engineer Jack Bowen and "Wop" May, a First World War pilot now employed by Canadian Airways Limited, were called in the dead of winter to fly the company's Bellanca (CF-AKI) to track an elusive culprit, Albert Johnson. The success of this venture brought further fame for these daring aviators and for aviation in general. Equipped with skis, wheels, or floats, aircraft could go almost anywhere.

The Second World War presented aviation industry workers with an amazing variety of tasks in building the Alaska (Al-Can) Highway in 1942 (Dawson Creek, BC to Delta Junction, AK), and the Canol [Canadian-American Norman Oil Line] pipeline project in 1943 (ostensibly to carry oil from Norman Wells, Northwest Territories, to Whitehorse, Yukon, and on to Alaska). The author points out, however, that while these projects created employment for Northerners, the influx of thousands of people exposed them to new diseases, short-term reliance on wages, and also had a deleterious effect on wildlife and the environment. Another such example was the Eldorado radium mine at Great Slave Lake, Northwest Territories. When the mine reopened in the 1940s as a Crown corporation, the Canadian and American governments secretly began extracting uranium that ultimately was used in warfare, shipping the materials by barge and then by air. The effect on those exposed to radioactive materials and dust caused "the Dene community near the mine to become known as the 'village of widows' because so many of the men died from cancer" (p. 89).

In 1941, under a Lend-Lease Act agreement among the USA, Britain, and the USSR, aircraft were flown from the USA through Canada and on to Alaska, via a northwest staging route. Metcalfe-Chenail describes the potential for tragedy, as these aircraft were flown by pilots totally unfamiliar with northern climates. On 15 January 1942, three Martin B-26 Marauder bombers experienced forced landings in the wilderness southeast of Watson Lake, BC, near the Smith River. Luckily all personnel escaped harm, and the site became famously called “Million Dollar Valley” for the estimated value of these lost planes. An error is noted, however, where the author states that the downed aircraft were never removed (p. 82). In fact, in 1971 David Tallichet of California sent a team in to the crash site and retrieved the wreckage. (For updated information on the three aircraft, Numbers 40-1459; 40-1464; and 40-1501, see www.warbirdsresourcegroup.org).

Chapter 5, aptly titled “Arctic Threats,” outlines the turbulent decade of the 1950s: dissolution of relationships between the United States and the Soviet Union, the Korean War, and the Cuban Missile Crisis—all involving aviation in one way or another. Communications systems LORAN and SHORAN underwent testing, and northern stations were erected, requiring airlifting of tons of material, personnel, and supplies. Distant Early Warning (DEW) Line sites were installed across the North, likewise calling on aviation transport, as were ongoing supply missions for RCAF transport squadrons. Again, the author points to some downsides resulting from this ingress: new restrictive game laws and offers of jobs brought heretofore independently living people in areas such as Frobisher Bay and Resolute into a short-term, wage-earning lifestyle, as they clustered in villages to be near jobs and supplies. Disease became problematic, especially tuberculosis, and this devastation is heartbreakingly chronicled under a subheading entitled “The White Plague.” As the author notes, many such initiatives had “good intentions with bad outcomes” (p. 103).

However, such increased activity offered new opportunities for skilled job training for both men and women and to Aboriginal residents, cracking the white male industry dominance. An example is found in the author’s interviews with the Metis family of Fred Carmichael, who went from driving dog-teams in his home territory of Aklavik to being the first indigenous person in the North to acquire his pilot’s licence. Fred and a partner formed Reindeer Aviation, applying for a charter licence out of Aklavik and then to the more industrious locale of Inuvik, NT.

Canadian-born Cedric Mah also became a pilot, and before flying in Canada’s North for Gateway Aviation, he spent time flying over the dreaded Burma Hump for the USAAF China National Aviation Corporation (CNAC) Transport Group. Author Metcalfe-Chenail’s photo notes of Mah (p. 110) state, incorrectly, that “Mah was famous for dumping forty million USD over the Himalayan Mountains during the Second World War to avoid crashing. The money was never found and the US Internal Revenue

Agency continued to keep a close eye on the popular bush pilot’s spending until his death in 2011.” In fact, to lighten the load in his Curtiss Commando—at that time the largest twin-engine transport in the world—Mah offloaded \$866 000 000 worth of Chinese paper money, which he acknowledged would have little value after the war (Mathe-son, 1999).

Women’s roles are acknowledged in many aviation business endeavors: Fran and Weldy Phipps’ year-round residence in Resolute required a determination to share trials as well as tributes. Female pilots often partnered with their husbands and became legendary for their knowledge, skill, and dexterity. Some examples cited are Molly and Jack Reilly, Dawn and Ron Connelly, Dawn and second husband Gordon Bartsch, and Lorna and Dick deBlicquy. All had personal stories of derring-do and determination and became sources of encouragement to those who were considering “life in the air,” particularly in the North.

Polar Winds misses nothing in the multifaceted field of aviation, from mysterious disappearances to miraculous discoveries and lifesaving medevacs. The stories hop through a chronology of events, deftly dealing with newly changed names of places and indigenous terms for languages and cultures. Many tales entice readers to search out the full stories of persons involved, the eventual history of a particular aircraft, or the development of areas once hot with progress. Some names connected with aviation adventures and misadventures (e.g., Jim and Chuck McAvoy, Bob Gauchie, Edward Hadkiss, Helen Klaben and Ralph Flores, Marten Hartwell) are more widely known than others, but all are remembered for their part in northern sagas.

The North has always retained a mystique for southern dwellers: what is it really like up there? The concluding chapters in *Polar Winds* chronicle photographic tours made for *National Geographic*, high-altitude research trips by the Arctic Institute of North America, and transportation of equipment and people to base camps in preparation for mountain-climbing and North Pole expeditions.

Polar Winds doesn’t pull any punches, exposing negatives as well as positives regarding our aviation history, thus allowing readers to absorb the wide range of elements that led to the present-day industry. The book is kick-started by quotes from 50-year iconic pilot and owner/operator of Buffalo Airways, Joe McBryan, whose vintage aircraft and resolute, hardworking staff members have recently found themselves the darlings of the popular *Ice Pilots* television series. It’s a good choice, for McBryan is “one of them.” He has always been a Northerner, whose often grouchy demeanor masks a deep love for the place and the planes. “I get to do what I want to do,” McBryan is quoted in the concluding statement to this voluminous history of northern flying, “and I’d like to do it all over again.” (p. 180).

As a reviewer and avid reader and writer of aviation history, I take my hat off to Danielle Metcalfe-Chenail for her work in containing this massive history to 224 pages, including a glossary of abbreviations and acronyms, chapter notes, a selected bibliography, and detailed index.

Numerous photographs (many in colour) enhance the stories. The appearance of the book is pleasing from cover to cover, and the print easy to read. (I wondered why the title was *Polar Winds* rather than *Polar Wings*, but perhaps that title was already taken.) Small glitches are barely noted (e.g., in the copy I was given to review the page numbers from 210 to—supposedly—224 slide off the page in a faulty printing cut). A couple of minor factual errors noted above do not detract from the overall enormity of the research and writing involved in this work. This book has earned its place in the collection of every reader who not only enjoys aviation history but also wishes to learn more about the history of our country and its people. Bravo!

REFERENCE

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