A Hundred Years of Canadian Military Communications and Electronics

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The Communications and Electronics Branch in the Canadian Forces has several founding members: the Royal Canadian Corps of Signals, the Royal Canadian Air Force Telecommunications Branch, the Royal Canadian Navy Communications Research Branch, and some elements of the Royal Canadian Electrical and Mechanical Engineers.

Following the South African War (1899-1902) the importance of signalling was recognized, and its place in the Canadian Army was assured by the appointment at Ottawa of Captain Bruce Carruthers as Assistant Adjutant-General for Signalling. He conceived the idea of a separate Corps to develop signalling in the Canadian Army. The original Corps shared communications responsibilities with the Royal Canadian Corps of Engineers until 1919. In 1921, the prefix Royal, was approved for the permanent force element of the Corps. This honour followed for the reserve component in 1936. The central figure of the Canadian Signal Corps badge was the Roman God Mercury, symbolic of speed. This symbol continues to be central to the present Communications and Electronics badge.

The First World War saw the development of spark wireless, buried telephone cable and message rockets, in addition to motorcyclist dispatch riders, messenger dogs, carrier pigeons, and the old reliable lamp and flags. Canada has Lieutenant-Colonel (later Colonel) Forde to thank that the Corps was continued after the First World War. By his ardent persuasion, the General Staff was convinced that the need existed for a Signals Corps in peacetime. A few vacancies were made available from the Instructional Cadre to form a Permanent Force Signal Corps. The young Corps secured a precarious foothold in the vastly reduced post-war army with the authorization of a scant five officers and fifteen other ranks. With gradually added responsibilities, the Corps grew slowly in size and importance. In the early twenties, a Signal Depot was opened at Camp Borden, Ontario, for centralized signal training.

In 1923, the opening of radio stations at the Yukon mining communities of Mayo Landing and Dawson City heralded the beginning of the Northwest Territories and Yukon Radio System. This system eventually grew to 28 stations, ranging in size from three men at Fort Chipewyan, to 19 men at Norman Wells. It became a vital link in the development of our country's rich northern frontier, providing reliable radio communications for mining companies, aircraft, trading posts, and prospectors. Regular weather reports from these systems formed the basis for national forecasts from the Dominion Observatory.

When airmail was introduced to the Canadian public in 1927, the Royal Canadian Corps of Signals was given responsibility for a nationwide system of radio beacons, required to guide the mail planes. The Corps also supplied communications for the first transatlantic air mail from a radio station at Red Bay, Labrador, to mail ships at sea and aircraft of the RCAF. In 1934, most of these responsibilities were handed over to the Royal Canadian Air Force and became the responsibility of its Signal Service. Despite these civilian-type duties, the main effort of the Permanent Force Signal Corps in those days was to supervise the signal training program of the Non-Permanent Active Militia, forerunner of the present-day Reserve Force. In 1937 the Corps School moved to its newly constructed permanent home, Vimy Barracks, Kingston, Ontario.

The Second World War, with its unprecedented requirement for communications befitting large-scale mobile fighting, saw a tremendous increase in the size and scope of operations of the Royal Canadian Corps of Signals. Each of Canada's five fighting divisions was furnished with a divisional signal unit of nearly a thousand men. The Corps also supplied a regimental sized unit for each of the two Corps Headquarters, and another for Headquarters' First Canadian Army. Hundreds of trained signalmen served in base signal units and many more served in North Africa, Hong Kong, Australia, and Burma.

The war also brought tremendous advances in equipment and in the techniques used in military communications. The Corps contributed significantly to the development of more effective and efficient communications equipment through the efforts of the Canadian Signals Research and Development Establishment, located on the outskirts of Ottawa. When mobilization came in 1939, Canada found itself well served by the foresight in the training of the force of part-time soldiers; the Non-Permanent Active Militia; and by the small Permanent Force. The vast numbers of loyal Canadians who had made a hobby of military signaling played a large part in the organization and manning of the huge Signals Force of the Second World War. In the re-organized post-war Canadian Army, Signals played a dominant part in both the Reserve and Active Forces.

The Corps was represented in Korea by a brigade signal squadron and by men serving in infantry and artillery regiments. Some six years after the war, the Corps was back in Germany to provide a brigade signal squadron to Canada's Army NATO force. This force remained in Europe in various forms until its withdrawal in 1994. Within Canada, the Corps continued to grow and prosper. It was now operating the Army component of the National Defence Communications System, a countrywide teletype system. In 1957, the Corps commenced turning over all 28 stations of the Northwest Territories and Yukon Radio System to the Federal Department of Transport. By 1965, the system including its headquarters in Edmonton, had closed, and thus ended an era in which the Royal Canadian Corps of Signals played a very significant role in opening Canada's north.

The advent of United Nations Peacekeeping Operations has had a significant impact on the Corps both in personnel and equipment. In virtually all of those operations, the Corps has been represented in strength, ranging from one or two radio detachments, to a full signal regiment. While providing excellent training and experience, these commitments placed a heavy toll on unit manning. In additions to all these demanding tasks, the Army field force in Canada placed continuous demands on the Corps, which true to its traditions and its high standard of training, it met with both energy and success. Major technical support for Army signal equipment was provided by elements of the Royal Canadian Electrical and Mechanical Engineers. The Royal Canadian Air Force Signals Branch, later to evolve into the Royal Canadian Air Force Telecommunications Branch, was formally established in 1935. Its mission was the provision of the telecommunication needs of an ever-growing Air Force. From a simple beginning in 1927, which saw a small number of Royal Canadian Corps of Signals personnel attached for signal duties, the Royal Canadian Air Force Telecommunications Branch grew to be a highly technical and efficient organization. They supported the operations of the Air Force, both in Canada and overseas during the Second World War.

The pre-war Air Force made its contribution to national development by operating mail services, weather stations, and conducting high arctic reconnaissance, all supported by an ever-growing communication system. During the Second World War there was a large expansion of the Air Force's telecommunications and radar operations. RCAF Station Clinton trained more than 6,000 radar personnel for service in Canada's Coastal Defence, the United Kingdom's Home Radar Chain, and many other areas of Allied operations. At the beginning of the "Cold War," North American Air Defence (NORAD) became a permanent feature of our defence policy. The school, which handled the resultant expansion, was at Clinton, Ontario. The Royal Canadian Navy operated the Supplementary Radio System with some 800 sailors, who worked in high-frequency radio direction finding and communications research, primarily in the North. Their headquarters and school were in HMCS Gloucester, on the outskirts of Ottawa.

The Canadian Forces Reorganization Act in 1968 brought the communicators of the three services together, to form the Communications and Electronics Branch. All three services operated trans-Canadian message networks; the Air Force also had a ground to air communication system. These systems eventually came under one organization, the Canadian Forces Communications Command. There, they remained until the mid nineties when they became a direct responsibility of National Defence Headquarters on the closure of the Communications Command. The Navy's school in Ottawa and the Air Force school at Clinton had closed immediately after integration. Most professional training for the Branch was moved to the Canadian Forces School of Communications and Electronics at Kingston, Ontario, the old home of the Royal Canadian Corps of Signals and now the home of the Communications and Electronics Branch. Personnel of the Communications and Electronics Branch, one of the Canadian Forces largest, carry out their duties all across Canada and around the world in support of the United Nations, NATO and humanitarian missions. They operate and maintain some of the most sophisticated and complex communications equipment found today.

The members of the Branch pride themselves in being ever swift, accurate, and watchful in meeting the communication needs of the modern Canadian Forces. These military communicators, having a history so closely intertwined with the development of Canada, are second to none.