Grenfell and the Labrador Coast

David H. Gray

Les conditions de vie des pêcheurs vivant sur la côte du Labrador au début du siècle dernier étaient absolument épouvantables. Sir Wilfred Grenfell mérita sa distinction de Chevalier en reconnaissance de ses efforts pour subvenir à leurs besoins pressant de soins médicaux, d'éducation, de services religieux et de réhabilitation. S'adressant au problème de leur endettement chronique envers le magasin local, il créa des coopératives et chercha à développer des sources alternatives de revenu. Pour ce faire, il explora intensivement le littoral Nord-Sud du Labrador pendant 35 ans et ce dans des embarcations plus petites que celles utilisées aujord'hui à des fins récréatives. Le processus fut prolongé 50 ans de plus sous la tutelle de l'Association Internationale Grenfell. Cet article examine les moyens disponibles pour traverser la côte en posant un regard particulier sur les cartes que Grenfell aurait pu utiliser. Etant d'un tempérament plutôt impétueux, Grenfell faisait des choses que nul autre ne pouvait ou n 'aurait osé faire et l'accomplissait du mieux qu 'il le pouvait.

Looking back at my career in the Canadian Hydrographie Service (CHS), my first and my most recent, (and probably last), field assignments were on the Labrador Coast. In 1972,1 was on board Canadian Scientific Ship (CSS) *Baffin*[1] sounding the inshore area north of the Hopedale Run in launches and the area offshore of Nain[2] and Hopedale by ship. In 1997,1 was fortunate enough to use the helicopter of the Canadian Coast Guard Ship (CCGS) *Pierre*

[1] CSS *Baffin,* 287 feet long, 3567 tons (gross), was built in 1956 at Canadian Vickers in Montreal as a multi-disciplinary hydrographie and océanographie ship. She was ice-strengthened, had a helicopter deck and carried 5 hydrographie survey launches. She was sold out of government service in 1991.

[2] Founded 1771, Nain, the oldest Moravian (a religious group of German/Czech origins) settlement in Canada, is now the most northern inhabited community on the Labrador coast. Other Moravian missions were, from south to north: Makkovik (1896-present), Hopedale (1782-present), Zoar (1865-1889), Okak (1776-1919), Hebron (1830-1959), Raman (1871-1908), and Killinek (1905-1925).

The Northern Mariner/Le marin du nord **XV No. 1, (January 2005), 15-25.**

Radisson,[3] at anchor at Port Burwell,[4] to explore for, and position, rocks along the northernmost sixty miles of the Labrador Coast. I use the verb "explore" intentionally, because much of the northern Labrador Coast is still unsurveyed.[5] While at anchor off Hopedale in 1972, we were visited by the *Strathcona 111,* the little hospital ship of the Grenfell Mission that plied the Labrador coast to address the medical and dental needs of the coastal settlements.[6] From those visits, sprang my interest in Sir Wilfred Grenfell and his role and experiences in Labrador. Although not his primary work, his contributions to the hydrography of the coast are important and still current today. This article will review them within the larger context of his medical and missionary work.

Dr Grenfell found the coast awe-inspiring. He commented in his autobiography that never in his life had he expected any journey half so wonderful. He probably came to Labrador with the preconceived impression, "God made the world in five days, made Labrador on the sixth, and spent the seventh throwing stones at it."[7] He steamed through endless calm fiords, runs, tickles, bays and straits, without seeing the open ocean, and with hardly a ripple on the water. He passed high mountains and lofty cliffs, crossed mouths of rivers, left groves of spruce, fir and larches on both sides, and saw endless birds. There were no "road" maps, no satellite navigation or communication systems, and no repairs shops. He, and his ship-mates, navigated this coast at their own peril. As it was impossible and dangerous to proceed after dark, they would anchor in a quiet bay and those aboard would go ashore and gather specimens of sub-arctic flora and capture a bird or a dish of trout to help out the diminutive larder.[8] He noted the direction of glacial striations and carried out océanographie data collection, such as bottom-sampling, and sea-water temperatures to a depth of 300 fathoms.[9]

Wilfred Grenfell was born 28 February, 1865 near Chester, England, the son of a schoolmaster and clergyman. Living on a tidal river, he learned the ways of the sea as he grew up. His father accepted a chaplaincy at the London Hospital, the largest hospital in

[3] CCGS *Pierre Radisson,* 318 feet long and 5910 tons (gross), was built at Burrard Drydock, North Vancouver in 1978 as the first of 3 sister-ships as medium icebreakers capable of Arctic operations.

[4] The Moravian Mission at Killinek was at the NW corner of the harbour at Port Burwell, where some buildings still stand. The Hudson's Bay Co. post was located on the NE arm from 1907 to 1939.

[5] In an unpublished 1999 charting assessment done by CHS, ("Detailed Assessment of Charting in Newfoundland and Labrador"), the coast north of Nain was acknowledged to contain just a few lines of track soundings and warnings concerning chart inaccuracies and deficiencies. As one heads south, the charting quality improves, but for much of the province of Newfoundland and Labrador, the charting is not to modern standards. (Acceptable modern standards would probably require acoustic sounding profiles, which are done in regularly-spaced parallel lines, and shoal areas examined to find the minimum depth. Given the roughness of the bottom off the coast of Labrador, it is probably more cost-effective to do total-bottom coverage with a multi-beam acoustic sweep system.)

[6] *Strathcona III* is a 208 GRT steel-hulled ship built in 1966 at E.F. Barnes Ltd.,St John's. In 1975 she became the *Northern Seal* and now operates as a ferry along the south coast of Newfoundland.

[7] Sir Wilfred Grenfell, *The Story of a Labrador Doctor,* (London, 1925), 67.

[8] *Ibid.,* 56.

[9] Wilfred T. Grenfell, *Labrador: the Country and the People,* (New York, 1913, figure 17; Ronald Rompkey, *Grenfell of Labrador,* (Toronto 1991), 48.

Britain, set in the poorest section of London - the Docks. After his years away at public school, he joined his father in London to take up studies at the London Hospital Medical College from 1883 to 1889, where he was not a stellar student.

While studying medicine at London University, he attended some Evangelistic Meetings, where he eventually was converted. The Voice of God came to him via his professor, Frederick Treves, who encouraged him to lend his expertise as a doctor to the North Sea fishermen.[10] The Mission to Deep Sea Fishermen hoped to make the conditions more tolerable for those who followed the toughest job in the world." The Mission was a dedicated group of men concerned about the religious and social welfare of fishermen. To do this, it was necessary to break the hold of the Dutch grog ships that sold duty free spirits and cigarettes as well as pornography, and to strengthen the will of the men against temptation at the moment that they were paid their wages in some seedy pier-side bar.[12]

For five years Grenfell splinted broken bones, removed fish-hooks and performed other medical emergencies on the North Sea. As opportunities arose, he preached the Gospel. In 1892 he made his first visit to Labrador and continued for the rest of his career to treat the needs of peoples of that coast because he saw their need as being greater that the North Sea fishermen. During the winter he raised funds so that he could return in 1893 with two nurses and two doctors to set up hospitals at Battle Harbour and Indian Harbour. This devotion to a single project resulted in a falling-out with the benevolent society that originally supported the expedition and led to the formation in 1914 of the International Grenfell Association to provide health care, education, religious services, and rehabilitation. He made his last visit to the Labrador in 1933, retired in 1935 and died in 1940.

He tackled everything at hand, including university rugby, cricket and rowing, in the way that we want professional hockey players to play in the Stanley Cup final - with wanton abandon of personal safety. He dove overboard in mid-Atlantic to retrieve the last ball being used for cricket on deck, making the captain turn the *Albert* around to pick him up.[13] Contrary to advice, he drove a dog-sled across ice pans, only to have the ice pans drift out to sea. He was rescued next morning by Inuit who paddled and dragged a boat across the ice to fetch him. Meantime, he had to kill three of his dogs to provide fur to keep himself warm. With only the most elementary navigating tools, he repeatedly made hazardous dashes to the most northerly stations to leave his presence on the full extent of the coast.[14]

Dr Grenfell attended to the medical needs of the inhabitants along the 700-mile (4400-mile, if you measure the sinuosity) Labrador coast for 35 years. For his endeavours, in 1907 he was awarded the first honorary degree in medicine from Oxford. In the same year he was made a Companion of the Order of St Michael and St George, and twenty years later

[10] Frederick Treves (1853-1923) was the surgeon who successfully removed King Edward VII's appendix in 1901, for which he was knighted. That operation was considered very risky at the time and it delayed the coronation by a year.

[11] The mission was renamed the Royal National Mission to Deep Sea Fishermen in 1896.

[12] Stanley Pritchard, *Fish and Chips,* (London & Oxford, 1980), 43.

[13] The *Albert* was a 155-ton, 110-ibot ketch, named after Prince Albert, the consort of Queen Victoria.

[14] Rompkey, *Grenfell of Labrador,* 63-64.

he was elevated to the rank of Knight Commander of the same order.[15]

The Labrador coast has seen Amerindians and Inuit populations for centuries; Europeans started settling there in the 1770s, although they had been seasonally present since the 1520s. The Labrador coast a century ago was populated with about 4000 persons, or about one half of today's coastal population from the Strait of Belle Isle to Killinek (now in Nunavut) at the very northern end. On top of that, every summer some 25,000 fishermen travelled "down North" in schooners, as soon as the ice broke sufficiently to allow them to get along. They were the "floaters" (fished from schooners) or "stationers" (worked from small boats at fixed locations) and they came from south Newfoundland, Nova Scotia, Gloucester, and even Boston. Some Newfoundlanders took their families down and left them in summer tilts on the land near the fishing grounds during the season. When fall came, they picked them up again and started for their winter homes in the south, leaving Labrador in the possession of the "livyers."[16]

Newfoundland fishermen's tilts (houses) were log and plank structures banked up with earth outside, with birch bark and turf roofs and often an empty flour barrel for a chimney. They consisted of one room, one end of which was partitioned off for the skipper and larder; the rest of the crew slept in a bunkhouse arrangement. When they departed for the south, they took their windows with them to Newfoundland and the door was left open to allow warm air to enter in the spring and melt the snow that came through the roof. Some permanent residents had only the clothes on their backs and the children were sometimes practically naked. In winter they had to keep indoors for lack of clothes. If their clothes were washed, they had to spend the day in bed. By October, they had already begun their winter diet - 4 barrels of flour, 1 ***Vt*** lbs. of tea and molasses - that was to last till July.[17]

They fished for cod. No other sort of fish was valued, except salmon, herring and capelin, which was used for bait. Indeed the word 'fish' was used to describe cod and nothing else. Sole, turbot, plaice, and halibut gathered in with cod was thrown back into the sea as worthless or fed to the dogs. No Newfoundlander would eat these. The cod when caught was gutted, headed and split, then salted and dried for sending to Europe, the Caribbean and South America.[18]

Grenfell's first encounter with the people of Labrador was when the *Albert* anchored in Domino Run in August 1892. One impression on that first day undoubtedly influenced all his subsequent actions. Late in the evening, he was led to a little, sod-covered hovel, with one window of odd fragments of glass. The floor was of pebbles; the earth walls were damp and chilly. There were half a dozen rude wooden bunks built in tiers around the single room, and a group of six neglected children, frightened by his arrival, were huddled together in one corner. A very sick man was coughing his soul out in the darkness of a lower bunk, while a pitiably clothed woman gave him cold water to sip out of a spoon. There was no furniture

[15] Grenfell, *The Story of a Labrador Doctor,* 310-311.
[16] Grenfell, *The Story of a Labrador Doctor,* 63; Patricia O'Brien (ed.), *The Grenfell Obsession-An Anthology,* (St John's, 1992), ix.
[17] Ronald Rompkey (ed.), *Labrador Odyssey,* (Montreal & Kingston, 1996), 52, 145.
[18] J. Lennox Kerr, *Wilfred Grenfell: His Life and His Work,* (Toronto, 1959), 61 -62.

except a small stove with an iron pipe leading through a hole in the roof. Grenfell pitied the man because he could do so little for the sufferer in such surroundings. He had pneumonia, a high fever, and was probably tubercular. The poor mother could never nurse him and tend the family. Furthermore, their earning season, while the fish were in, was slipping away. A hospital and a trained nurse was the only chance for this breadwinner - and neither was available. Grenfell called in a couple of months later as he came south before the approach of winter. Snow was already on the ground. The man was dead and buried; there was no provision whatever for the family, who were destitute, except a widow's grant of twenty dollars a year. This, moreover, had to be taken up in goods at a truck-store, less debts if she owed any.[19]

Apart from the usual accidents brought on by fishing and hunting, he saw untreated cases of lung disease (e.g., tuberculosis), the consequences of an influenza epidemic, pneumonia, and pleurisy. Evidence of other epidemics, including diphtheria and typhoid, were also common. He observed the effects of poor diet and hurried eating, manifested in multiple cases of prolonged constipation, indigestion, haemorrhoids, eye infections, peritonitis, scurvy, pellagra, beriberi, oedema, and rickets. There were also the unpreventable ailments associated with fishers, such as water boils, night-blindness, strained back, sore muscles, broken fingers, rotten teeth, mouth ulcers, conjunctivitis, strangulated hernia, urine retention, inflamed nerves, rheumatism, and arthritis.[20] But Grenfell did wonders with limited resources, and by the time that he returned to St John's, the news of his success was on everyone's lips. He was called to Government House to receive a resolution asking for the return of his hospital ship in following years.[21]

The *Albert* was under the command of Joseph Trevise, of Penzance, who had 25 years experience in steam ships, and also had a mate and boatswain (both skippers in their own right), several seamen, two of whom doubled as carpenter and sailmaker, and the medical staff. Grenfell, who had a Board of Trade master's ticket that was limited to his personal yacht, was often at odds with the skipper. Trevise was cautious; Grenfell more adventurous. Yet Grenfell took astronomic sights and performed the associated computations during the trans-Atlantic crossing, which was a benefit to Trevise.In later years, Grenfell argued, unsuccessfully, to be in command of his own ship, and if necessary to change the registration of the ship to him personally.[22]

In 1893, Grenfell was glad to be separated from Trevise; Dr Alfred Bobardt manned the hospital at Battle Harbour, Dr Eliot Curwin went on the *Albert* and Grenfell took charge

" A "truck-store" was where a person sold his fish, received a credit for the sale, and bought his supplies. Bookkeeping was usually done only by the 'agent' at the store because the local could not read, write or do arithmetic. To some, it seemed that no matter how much fish and furs were sold and how few provisions were bought, the local was always in debt. Grenfell, *The Story of a Labrador Doctor,* 52-53; 0'Brien(ed.), *The Grenfell Obsession,* 1-2.

[20]" Rompkey, *Grenfell of Labrador,* 51.

[21] Pritchard, 47.

[22] Rompkey, *Grenfell of Labrador,* 44-45, 102.

of the steam-powered yacht, *Princess May,* and went to many more harbours.[23] His return to St John's that year was newsworthy: he was feared lost at sea and the mail steamer had been alerted to search for the *Princess May.* Grenfell was indeed experiencing trouble; the rolling of the small craft had tossed the compass overboard, and he did not have sufficient coal so was burning wood, including the cabin top. Grenfell had steamed this small river craft three thousand miles that summer along one of the most hazardous coasts in the world, a coast with no lights to help the mariner and poorly surveyed where it had been surveyed at all.[24] With comparatively little experience he had found his way into dozens of lonely settlements and explored channels where only a few fishermen, if anyone, had penetrated before. That season, the three doctors saw 2493 out-patients, 37 hospital cases, 28 major and 269 minor operations.[25]

Either within the collections of CHS, or elsewhere, such as the Library and Archives of Canada, I have been able to examine many of the navigational materials available to Grenfell.

It is known that *Albert* was supplied with charts and sailing directions in 1892, and presumably all the other years. The charts revealed the inadequacy of marine surveys, for some charts featured information dating back to Captain Cook's brief visit circa 1765.[26] There are charts for southern Labrador that date from the late 1700s. One of the charts, dated 1767, was engraved by Thomas Jeffreys and printed by Robert Sayer, both "ancestors" of the commercial firm of Imray, Laurie, Norie & Wilson. On them, the coast line bears a reasonable resemblance to the modern chart. But, there are few soundings. Farther north, I found an 1862 chart prepared by, or for, the captain of the *Harmony,* the Moravian supply ship.[27] It takes some imagination to make the comparison between the chart's coastline and the present-day coastline. Nominally the chart goes as far north as Saglek. In 1881, Staff Cdr John G. Boulton, RN, (1842-1929), later loaned by the Admiralty to be the first head of the Georgian Bay Survey, was detached from the regular survey duties to assess the survey requirements from Nain to Cape Chidley. I did not find any resulting charts from that expedition, although he apparently made plans of several small harbours and fishing anchorages.[28] There was also a 1918 Imray, Laurie, Norie & Wilson chart of the Labrador

[23] The *Princess May* was named after Princess Mary of Teck, wife of Prince George, Duke of York. He later became King George V and she became Queen Mary. In the family she was known as May, hence the vessel's name. It had been the six-year old *Clwyd,* a 45-foot long, 8-foot beam wooden steam yacht that Grenfell bought at Liverpool in 1893. It was shipped to St John's on the deck of the *Corean.* It rolled easily, and tended to bury its bow in heavy seas.

[24] As of 1900, there were six lighthouses in Strait of Belle Isle. The first two lights north of Belle Isle were established in 1905 at Double Island and at Indian Tickle. Thirteen more were built prior to 1930.

[25] Kerr, 100-101,103.

[26] Rompkey, *Grenfell of Labrador,* 44.

[27] *Harmony* was owned by the Society for the Furtherance of the Gospel, a missionary organization of the British Moravians. There were several ships of that name. Trade was transferred to the Hudson's Bay Co. in 1926, ending *Harmony's* annual visits.

[28]* O.M. Meehan, "The History of the Canadian Hydrographie Service from its Inception in 1883 to the End of the Second World War," *The Northern Mariner,* Vol. XIV, No. 1, (January 2004), 8. Meehan notes that he travelled on the Hudson's Bay Co. supply ship from Rigolet to Fort Chimo (now Kuujjuaq), visited Davis Inlet

Coast, from Strait of Belle Isle to Saglek, which included a lot of insets of small harbours. Again, the northern areas left much to be desired.

As Grenfell found his charts useless for identifying the numerous islands and shoals for the coast north of Hopedale, one of the Moravian Brethren joined the *Princess May* to help find the Moravian stations among the plethora of islands which fringe the coast.[29] Using a long ladder lashed to the mast to elevate his lookout, he felt his way along, locating rocks by their wash before they presented any danger. Not reaching Nain before dark, he grounded in an unidentified bay. Next morning he got to Nain with the assistance of an Inuit heading to Nain with a load of salmon and trout. From Nain to Okak, ninety-five miles distant, he got assistance of an Okak man as a pilot.[30] The locals, and Grenfell after years on the coast, were capable of navigating without charts. But there were many groundings: some at the level of an "inconvenience," some serious enough to cause a wreck, and too many with loss of life.[31] As there were no lights on the land, it would have been madness to try to make harbour after sundown.[32] This is the reason why many CHS charts have detailed surveys or sailing directions for harbours and bays along the coast. There are no less than twenty-five anchorage symbols on present-day charts between Nain and Cape Chidley, a distance of two hundred and seventy miles.

The deficiencies of navigating the Labrador coast with inadequate or non-existent charts would bother Grenfell for many years, and correcting this deficiency became one of his ambitions. In 1928, he is reported to have said in a newspaper account that adequate surveys of the Labrador coast are a necessity in developing the area north of Hamilton Inlet.[33] He had asked the British Air Ministry for an aircraft to carry out a survey, but the cut-backs in the British armed forces prevented this help being given. However, it was not until 1931 that he was in a position to do anything about it. Grenfell was able to gain support from Dr Alexander Forbes (1882-1965), professor of neuro-physiology at Harvard University, who owned a small aircraft and a schooner, *Ramah,* and gathered a team of undergraduates to carry out the survey.[34] In 1931, they formed the American-sponsored survey party - the Forbes-Grenfell Expedition - to help chart the coast. Grenfell acted as pilot to the expedition, with the *Strathcona lias* supply vessel.[35] The aircraft was used to collect oblique air photos.

and Nachvak Bay and positioned headlands, including Cape Chidley.

[29] Grenfell, *The Story of a Labrador Doctor,* 56.

[30] Rompkey, *Grenfell of Labrador,* 64-65.

[31] There was, allegedly, the "nasty" habit of intentionally grounding a ship, claiming it as a total loss for the insured value, selling the wreck at rock-bottom price to an accomplice, salvaging the wreck, and restoring it.

[32] Grenfell, *The Story of a Labrador Doctor,* 102.

[33] http://ngb.chebucto.org/Newspaper-Obits/xxviiil.shtml accessed 15 March, 2004.

[34] Dr Forbes joined the US Navy in the First World War where he worked for the Submarine Signal Corp. (later Raytheon) in the development of submarine detection devices. After the war, he applied that knowledge to reflex action in the human body. In the Second World War he again joined the US Navy, where his geographical knowledge of the Northern Atlantic coast assisted in the selection of sites for airstrips in Labrador expediting the transfer of aircraft to Europe.

[35] *Strathcona II* (ex *Runa),* 95 tons, was purchased in 1924, as result of a gift of Sir Donald Smith, Lord Strathcona, one of the principal financiers of the Canadian Pacific Railway. In his early career, he had been employed by the Hudson's Bay Co. on the Labrador coast.

Grenfell contributed his own maps and sailing directions of how to proceed along the coast. These were used, verified by comparison with information from the over-flights and aerial photography. The American Geographical Society produced charts in 1938 from the information supplied. The information also incorporated soundings gathered in 1926 by Harvard graduate student, Columbus Iselin (1904-1971), owner of the schooner *Chance* and the nephew of one of the staunchest financial supporters of America's Cup defenders, who sailed up the Labrador Coast as far as Cape Kakkiviak (Latitude 60°N) in his endeavours to study the Labrador Current.[36] Iselin's soundings are still on CHS charts 4773 and 4774. In 1932-34, HMS *Challenger* came to survey and chart the whole coast but only surveyed near Nain.[37] The ruggedness of the bottom was dramatically illustrated when the *Challenger* ran aground on an uncharted, isolated, pinnacle rock in otherwise deep water between two sounding lines, now known as Challenger Rock.[38] The bottom can, and does, change from 50 fathoms to zero almost instantly, and if there is no wind to cause breaking waves, there is no warning.

Grenfell's mission to the peoples of Labrador was not only to their medical needs; but he also addressed their economic needs. His contributions in this regard are a well-known part of the Grenfell legend. For instance, he started a cooperative store in Red Bay, Labrador in 1896 to break the hold of the truck system of impoverishing the fishermen and trappers.[39] He built a sawmill at Roddickton, Canada Bay, Newfoundland. He opened co-operative stores, weaving mills, potteries, and a silver fox farm, incurring considerable opposition from the traders. He planned an orphanage. He lectured and he persuaded; he walked with those in high society and talked with politicians. In 1911, the foundation stone of the fishermen's institute's new premises on Water Street, St John's was laid by an electrical signal from Buckingham Palace by the Mission's Patron, King George V, in his first public act after his coronation.[40]

Not so well recognized, however, is the importance of Grenfell's contribution to the hydrography of the Labrador coast. He was one of the few "educated" person travelling the Labrador coast prior to 1920. He exhorted and organized others to travel the coast to improve the mapping; e.g., British Air Ministry, Alexander Forbes (1931), Iselin (1926), and American Geographical Society. He made small harbour plans of anchorages, and photographed or drew panoramas of the coast - both mediums of information dissemination used for eons in Sailing Directions and Pilots. He published these in his books of the Labrador coast, which no doubt found there way into the hands of sailors that intended to sail that coast. In 1911 he was awarded the Murchison Prize from the Royal Geographical Society for his charts of Labrador.[41] His charting efforts live on; his survey in McLelan Strait

[36] Columbus Iselin went on to become the director of Woods Hole Oceanographic Institute.

[37] See G.S. Ritchie, "HMS *Challenger's* Surveys in Labrador, 1932-1934," in William Glover (ed.), *Charting Northern Waters,* (Montreal & Kingston, 2004).

[38] How the *Challenger* extricated itself from the rock is described in Ritchie, G.S., *Challenger - The life of a survey ship,* (New York & London, 1958).

[39] O'Brien, *The Grenfell Obsession,* 15.

[40] Stanley Pritchard, *Fish and Chips,* Mowbray, London & Oxford, 1980, p. 49-50.

[41] http://www.anla.nf.ca/grenhist.htm accessed 15 March 2004.

is one locality where we know the information is his.

Looking through the names of people mentioned in this paper, there are a few that are commemorated in geographic names. "Grenfell Sound" is the eastern approaches to McLelan Strait, the channel between Killinek Island and the mainland at the very tip of Labrador.[42] Grenfell wanted to call the strait "Grenfell Tickle" because he explored this channel, had his *Strathcona II* driven backwards because of the strong tidal current and recognized that Inuit people had camped along it for centuries. The 8-knot tidal current in the strait stops ice from forming on top of the water - a polynia.[43] In Grenfell's book "Labrador: the Country and the People", he provided a sketch map of the strait, with soundings.[44] The current Canadian Hydrographie Service chart of the strait (#4773) shows a one-to-one correlation of soundings. Grenfell had been exploring the adjacent fiord to the south, climbed the intervening hill and photographed the channel that led to Ungava Bay.[45] He named this 1886-foot hill "Mount Sir Donald", after Donald Smith, Lord Strathcona. He, or more probably one of the ships named after him, is remembered in "Strathcona Run" and "Strathcona Rock" on the route into Nain. During some summers, Grenfell got assistance from American college students. One such group may have come from Bowdoin College, Brunswick, Maine. "Bowdoin Harbour", near Cape Chidley may have been named for the college or its schooner, *Bowdoin,* which did research along this coast. The soundings published in Forbes' report of 1938 are still used on the inset on CHS chart 4773.

Alexander Forbes' 1931 expedition contributed "Seaplane Cove" in the Seven Islands area. Columbus Iselin and his ship are remembered by "Iselin Harbour" and "Chance Rocks" near Cape Kakkiviak. The 1860 American expedition to observe the solar eclipse gives rise to "Mount Bache" (after the Superintendent of the Coast Survey), "Alexander Inlet" (head of survey), "Murray Head" (the hydrographer), and "Lieber Lake" (the geologist). In 1808, HMS *Thalia* (Capt. Thomas Manby) and HMS *Medusa* (Capt. H.P. Bouverie) arrived at Port Manvers to replenish their water supplies after a 12-week fruitless search for some French frigates in fog and among icebergs in Davis Strait.[46] Manby surveyed Port Manvers, which was incorporated as an inset on BA chart 1422. "Thalia Point", "Medusa Bluff, and "Bouverie Island" are from that survey. "Manby Island" has been changed to Little Fish Island.

Of the European names on the Labrador coast, most come from local people or are descriptive; far fewer come from artificial implantation; e.g. Port Charlotte, Sophia Harbour and Mecklenburg Harbour, which obviously comes from the queen consort of King George III, Queen Charlotte, née Sophia Charlotte of Mecklenburg-Strelitz. They married in 1761. On the 1767 chart - just six years later - the three named harbours met at "Queen's Road",

[42] McLelan Strait was named after the Minister of Marine and Fisheries (1882-5), the Hon. A.W. McLelan, who authorized the collection of tidal and other scientific data at Port Burwell, and elsewhere in the Arctic in 1883-5.

[43] CHS attempted to understand the current in McLelan Strait in David H. Gray, "Shifting the Tide at Port Burwell, N.W.T.," *Geomatica,* Vol. 53, No. 3. 1999.

[44] Grenfell, *Labrador: the Country and the People,* 56.

[45] *Ibid.,* illustration facing 58.

[46] HMS *Thalia* was a 36-gun ship built in 1782 at Bursledon. HMS *Medusa* was a 32-gun ship built in 1801 at Northfleet. [http://www.crolab.demon.co.uk/INTRO.HTM accessed 18 March 2004]

which is not an approved name.

Most people a century ago had little knowledge of Labrador, and perhaps might have echoed the message on old maps, "Labrador was discovered by the English. There is nothing of any value in it."[47] Fifty years ago, iron ore from Wabush and Labrador City started to be sent to market by train through the port of Sept îles, thirty-five years ago was the development of the hydro-electric power on the Churchill Falls, and now there is the potential of vast nickel ore reserves at Voisey's Bay. So we know that Labrador has plenty of economic value. It is so near and yet so far, so large a section of Canada and yet so little known, and so romantic for its wild grandeur and many vastnesses yet little trodden by humans.

Wilfred Grenfell had his share of human foibles: he was adventurous, even impetuous, but he was full of the basic Christian objective to help his fellow man. He was full of zeal for the projects that he held near and dear and the peoples of the Labrador coast were his life-long calling. He drove himself to the brink of death to help them. When, in 1929, Sir Wilfred Grenfell was conferred with the honorary title of Rector of St Andrew's University in Scotland, he was lauded as "the labourer of Labrador, the toiler of the deep, the tiller of human soil, the helper and healer of the lives of men".[48] The test of time endorses that observation.

Grenfell persisted in succouring the diseased, injured and infirm of the Labrador coast, even if the charts were unavailable, unusable, unreliable, or inaccurate. As we examine the charts of his era against the present charts of the northern half of Labrador, we find that the information held then is still the information being presented to the mariner today. We can see a one-to-one correlation between soundings that either he took, or were available to him, with what is on the present chart. The charts show the anchorages that he used. He left behind sailing directions (instructions as to how to sail the coast), panoramic sketches, and sketch maps with some soundings. He endeavoured to improve the charting of the coast by his own hand and with the help of others, such as Prof. Alexander Forbes. These data are included in the information that CHS provides the modern mariner. There are few private sources of hydrographie data in the coffers at CHS that equal his input. Unfortunately, that data has arrived at CHS, not as original data, but as synthesized data already incorporated into British Admiralty and U.S. Navy nautical charts. CHS acquired whatever charting information there was of the Labrador coast from the British Admiralty (the responsible agency up to 1949) and from the U.S. Navy (Cold War military surveys) in the 1960s.

In 1881 Staff Cdr Boulton assessed the need for charts of the Labrador coast. In 1932, HMS *Challenger* arrived on the coast to start a thorough survey of the whole coast of Labrador but only lasted for three summers and one winter. It only accomplished the approaches to Nain from north, south and seaward and that at the cost of severe damage to the ship. To support the air force base at Goose Bay, at the head of Lake Melville, and six radar sites along the coast, the Americans (principally) surveyed parts of the seaward

[47] Grenfell, *The Story of a Labrador Doctor,* 67.
[48] Kerr, 232.

approaches to the coast, and the coastal route from Strait of Belle Isle to Hamilton Inlet.[49] Starting in the 1970s, and continuing with more earnest in the 2000s, the Canadian Hydrographie Service has carried out surveys along the coast, progressing northward from Makkovik. In 1999 CHS briefed senior department officials on the woeful charting situation on the Labrador coast, but that plea fell on deaf ears. Meanwhile the survey continued at a snail's pace; in the summer of2003, the survey party was off Port Manvers. The 2004 season was written off since the ship, CSS *Matthew*[50] was damaged when she grounded at Cow Head, Newfoundland early in the season. The modus operandi is to perform a route survey about two miles wide outside the islands in water that is generally 100 metres deep using multi-beam sonar.[51] The anticipated coastal traffic is ships of 150 feet or larger - including cruise ships bringing tourists to see the sights that so inspired Grenfell a century ago, and to land at Hebron (a historical site), Nain and Hopedale. The routes traversed by Grenfell and the fishermen were in amongst the islands, where there was shelter, anchorages and points of reference for navigation. The modern navigator determines where he is with GPS to an accuracy that none of the charts surveyed or drafted 30 years ago can equal.

With any luck, *Matthew* will complete the route survey to Cape Chidley in 2005. That does not mean that the surveys of the Labrador Coast will be complete - it will only identify one or more selected routes to pass along that coast. Sir Wilfred Grenfell, although often remembered for his medical mission along the Labrador coast, should be remembered, particularly by the nautical historians, for his hydrographie work of sketch surveys, sailing directions and panoramic views that were necessary as an adjunct to his medical work and a benefit to all navigators of that coast for the one hundred and thirteen years since he first arrived in Labrador.

[w] The six radar sites are at, from south to north: Cartwright, Tukialik, Big Bay/Hopedale, Cape Kiglapait, Saglek and Cape Kakkiviak.

[50] CSS *Matthew* is a 165 feet long, 857 tons (gross). She was built in 1990 at Versatile Pacific Shipyards, North Vancouver, BC as a coastal research and survey vessel.

[51] Even in well surveyed coastal areas, lead and line (pre-1930) only provided a single depth measurement in a 100 metre x 100 metre area. Single beam sonar depthi-sounder (1930 - present) provides a profile under the keel of the ship. The ship or launch would run lines perpendicular to the anticipated contours and examine shoal areas by running a cloverleaf pattern over them. Multibeam sonar (1990 - present) provides almost total bottom coverage in a swath either side of and under the ship, collecting gigabytes of data per hour. Swaths are normally run parallel to the contours.