

CHARTING THE NORTHWEST COAST 1857-62:
A Case Study in the Use of "Knowledge as Power"
in Britain's Imperial Ascendency

by

RICHARD WILLIAM WALLACE

B.A., The University of Toronto, 1990

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

Department of History

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

November 1993

c. Richard William Wallace, 1993

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of HISTORY

The University of British Columbia
Vancouver, Canada

Date NOVEMBER 26, 1993

ABSTRACT

This thesis will deal with the hydrographic survey of the BC coast and the international boundary settlement conducted by HM ships Plumper, Satellite, and Hecate from 1857 to 1863. It will examine the geo-political importance of the pursuit of "knowledge as power" in light of American expansionism and the utilisation of the surveyors as a significant force of law and order; their importance to the social and commercial development of BC; and their contribution to the safety of navigation and the exploration of the BC coast.

TABLE OF CONTENTS

<u>Abstract</u>	p. ii
<u>List of Charts and Illustrations</u>	p. iv
<u>INTRODUCTION</u>	p. 1
<u>CHAPTER ONE: The Mid-Victorian Navy and Britain's Global Ascendancy.</u>	p. 25.
<u>CHAPTER TWO: The Surveys.</u> A. Sea.....	p. 53.
B. Land.....	p. 86.
<u>CHAPTER THREE: The Surveys and their Historical Significance.</u> A. The Gold Rush.....	p. 104.
B. San Juan Water Boundary Dispute.....	p. 115.
C. Race Relations.....	p. 131.
<u>CONCLUSION</u>	p. 166.
<u>BIBLIOGRAPHY: Sources Cited and Consulted</u>	p. 174.

LIST OF CHARTS AND ILLUSTRATIONS

1. Sketch Map of Haro Archipelago.....p. 7A.
2. Esquimalt Naval Base, Early 1860's.....p. 25A.
3. Officers of HMS Plumper, Victoria, B.C., 1858 - 1860.....p. 36A.
4. G.H. Richards, Chart of Esquimalt and Victoria Harbours.....p. 53A.
5. Vancouver Island Detached Service, Griffin Bay, 1858
HMS Plumper Ashore, Discovery Island, 1859.....p. 56A.
6. G.H. Richards, Chart of Fraser River and Burrard Inlet.....p. 72A.
7. R.C. Mayne, Map of Alberni Canal and Nanaimo, 1861.....p. 87.

At the end of the Napoleonic Wars in 1815, Great Britain entered into a long period of peace on the European continent which lasted nearly a century. The sixty years after the defeat of Napoleon was an epoch when, as Paul Kennedy noted, "British sea power exercised a wider influence than has ever been seen in the history of maritime empires." The principal rôle of the Royal Navy ceased to be war and became the maintenance of the pax britannica. However, there still remained two threats to safety on the high seas: piracy and uncharted waters. In addition to such naval imperatives as gunboat diplomacy and patrols against the African Slave Trade, "the Royal Navy set about removing the pirates and making the charts."¹

The Admiralty established the Hydrographic Office in 1795 in response to the fact that ship losses through shipwreck far exceeded the number lost in battle.² Admiralty charts were first issued in 1800, and were made available for public sale in 1823, primarily as a means for Hurd, the Admiralty Hydrographer, to raise funds for his cash-starved and unappreciated department. Government apathy toward the department was hardly justified in view of the considerable accomplishments of field hydrographers to that time. Captain James Cook, that greatest among explorers, cut his professional teeth off the shores of Quebec, charting the St. Lawrence within range of French guns, to enable General James Wolfe to safely pass its shoals, land his troops, and defeat Montcalm on the plains of Abraham.³ It is often forgotten that the epic voyage of the Beagle, from which Charles Darwin was to formulate his theory of evolution, was originally undertaken as a hydrographic survey of the Galapagos Islands. In addition, the allure of the fabled North-west Passage led to extensive Arctic exploration undertaken principally to chart and sound the unknown seas of the North. The most famous and tragic of these was the ill fated

expedition of Sir John Franklin, which vanished in 1847, and would itself precipitate a hydrographic bonanza when successor expeditions sought to ascertain his fate.

By 1829, official attitudes in Whitehall had changed and chart sales became part of imperial strategy to provide freedom of the seas and safety to all.⁴ As Ritchie observed, "Such a policy appeared to suit Britain in her search for raw materials for her growing factories, and markets for the resulting products."⁵ In this spirit, The Admiralty selected the fifty-six year old Francis Beaufort to serve as the New Hydrographer of the Navy, a post he would hold for twenty six years, a period which Ritchie terms the "high noon" of British hydrography.

By 1837, the "Admiralty Chart" was established in much the same form that it appears today with lines of soundings and drying heights, and a legend which denoted types of bottom, shoals, rocks, and with a compass-rose that denoted True and Magnetic North so that the ship's track could be plotted.⁶ A system of Notices to Mariners was established by which charts could be updated by chart dealers and ship owners. By the time of his retirement in 1855, Beaufort left surveyors working in every ocean and over 2,000 completed charts.⁷ The introduction of steam propulsion to naval vessels was the main impetus behind increased surveying activity. In one year, 1860, the Department sold 140,000 charts, an average of over fifty copies of each of the 2,500 separate sheets then in print. By the end of the nineteenth century that number would be quadrupled.⁸

The Hydrographic Office was not without its detractors, who questioned its utility. In 1851, Admiralty budget cuts threatened to curtail surveys abroad. Beaufort complained to the Secretary of the Admiralty: "I will not trifle with your time by repeating any hackneyed truisms about the

comparative expense to the country in cost of surveys or in the loss of ships or cargoes, but I will just entreat you to weigh the small sum you propose to save against the large amount of mischief that may be the result."⁹ To Beaufort is attributed that famous maxim, "the natural tendency of men is to undervalue what they cannot understand."¹⁰

The great period of British Hydrography extended from the second half of the eighteenth century to the end of the nineteenth. Scientific methods of surveying were being perfected at a time when British sea-power was reaching its zenith, and thus work was produced of a necessarily high standard of safety and accuracy.¹¹ When Captain John Washington took over as Hydrographer in 1855, despite the fact that the Crimean War demanded his primary attention, there were more surveys abroad than at any time before or since.¹² Eight Captains, seven Commanders and nine Masters were in charge of British Admiralty surveys throughout the world: George H. Richards in British Columbia and Vancouver Island; Joseph Denham in Fiji and the Coral Sea; and surveys in China, Japan, and Australia.¹³

Hydrography had a strategic purpose. During the blockade of the Gulfs of Finland and Bothnia during the Crimean War, painstaking surveys were undertaken of the approaches to the Russian forts at Bomarsund by the surveyor Captain William Sullivan. In July, 1854, he guided the fleet to within 2,000 yards of the forts "sometimes almost rubbing our sides against the bushes."¹⁴ After being surrounded by batteries on land and bombarded from the sea, the Russian garrison surrendered after a token resistance. The British lost only one man killed.¹⁵ A year later, Sullivan was also called out to survey the difficult approaches to the Sveaborg forts in the Baltic. Under fire from enemy batteries, Sullivan made a detailed chart of the approaches and provided distances by triangulation to the

targets to be attacked. After the channel was swept of mines, Sullivan guided the mortar vessels of the British and French fleet to positions in a firing arc 3,300 yards from the target while gunboats drew enemy fire by steaming up and down Sullivan's buoyed channels.¹⁶ Great havoc and destruction was wrought on the Russian cantonments, and the attack was considered a success. The Commander, Henry Keppel, lauded Sullivan as the giver of victory: "I owe you a debt of gratitude I can never repay. Everyone in the fleet knows that our success is due to you."¹⁷ Sullivan's contribution to British victories in Crimea represents, in its truest form, the harvest that the Admiralty sought to glean from the Hydrographic Office and the Surveying Service. The priority of hydrography was military utility first and foremost.

The everyday activities of hydrographic surveyors were not as dramatic as Sullivan's bravery under fire. Surveying was a mundane and tedious task that was undertaken for purely practical purposes, namely commerce and politics. However, when private enterprise and imperialism conflicted it was the former rather than the latter that held sway. Yet, though the dictum "trade follows the flag" is true for naval hydrography, the Admiralty held to its own priorities in all surveys undertaken. Requests from civil authorities were sometimes entertained, but were always secondary to naval requirements. When the Canadian Hydrographic Service was established in 1892, it was to assume those surveys required by the civil government, while the Admiralty, represented by HMS Egeria, would undertake only those surveys required for military purposes.

Henry Parizeau divides the surveys of the Northwest coast into four chronological categories. The first are "Discovery Surveys." An explorer approaches an unknown land from a safe distance and charts the large land

features, such as mountains, using astronomical observations, estimated distances and bearings, and reports the results.¹⁸ The cartographer pieces together the results into a patchwork chart constructed from the various explorations of the area. However, charts produced from "discovery surveys" were not guaranteed to be accurate or even that features on them existed at all.

In "Exploration Surveys" the explorer approaches the shore closely so that he can chart smaller features such as rocks, points of land, indentations, and islands. He might also send small boats to take shore observations, run coastal transverses, and locate a few reliable anchorages.¹⁹ Charts produced from exploration surveys were of greater reliability and tended less to report features that did not exist.

"Preliminary Surveys" carry the greatest detail and precision but were carried out only in areas that were in regular use by coastal shipping, such as bays, harbours, and traffic lanes. These were then connected on the charts by "sketch surveys" which traced out the hypothetical shape of the land mass. The expedition of HM Ships Plumper and Hecate, the subject of this thesis, falls into this category, as do most of the nineteenth century surveys of the Northwest coast.

"Modern Surveys" are largely a twentieth century phenomenon. The surveyor is provided with a detailed chart which "enables him to navigate by day and by night under the most trying of conditions."²⁰ The goal of the modern survey is to improve the accuracy, precision, and detail of older pre-existing charts of a particular area, and to update them where features, landmarks, and depths may have changed during the interceding years between surveys.

"Discovery surveys" were first undertaken by the Spanish Navy, but

due to a policy of navigational secrecy, their charts remained largely unpublished.²¹ La Perouse charted Dixon Entrance and the Queen Charlotte Islands but his charts never left the archives of the French Admiralty. Only a few French names of geographical features survive as a reminder of his presence.²² Captain Cook explored the Northwest coast on HM Ships Resolution and Discovery, and surveyed Nootka Sound and portions of the Alaska coast.

In response to Spanish territorial claims, Captain George Vancouver, commanding HM Ships Discovery and Chatham, was sent in 1790 to negotiate with Spanish Admiral Bodega de Quadra at Nootka Sound. He was also to survey the coast from 30° N to Cook Inlet and to find the Northwest passage if he had time.²³ Using Russian and Spanish charts as a guide, Vancouver completed the first large-scale survey of the coast and proved that Vancouver Island was separate from the continent. Like Cook, he missed the Columbia River having mistaken its entrance for a bay. It was a Boston Trader, Captain Robert Gray of the Columbia, who first crossed Columbia Bar on May 11, 1792, and a unique opportunity to claim Oregon as British by right of prior exploration was lost.²⁴ Vancouver left the Northwest coast in 1794, but his charts of Alaska remained in standard use even after its purchase by the United States in 1867.²⁵

Relatively little hydrographic activity occurred on the Northwest coast of North America from 1794 to 1857. The Hudson's Bay Company steamer Cadboro surveyed the mouth of the Fraser River at the time of the founding of Fort Langley. Sir Edward Belcher surveyed the Columbia River to Fort Vancouver in HMS Sulphur, aided by James Kellet in Starling, and later resurveyed Friendly Cove, Nootka Sound, in 1839. In 1846, HM Ships Pandora and Herald, under the Command of Captain James Kellett, carried out the

survey of Victoria and Esquimalt harbours, part of the Strait of Juan de Fuca, and many minor anchorages in the Victoria locale.

When Vancouver Island became a Crown Colony in 1849, the naval presence on the coast was increased to deal with the territorial threat posed by the United States, protect the white population, and maintain law and order amongst the coastal tribes.²⁶ Ships on station carried out some limited surveys when an opportunity presented itself. In 1850, the search for the murderers of three deserters from the Hudson's Bay Company vessel Beaver enabled HMS Daedalus to survey Sushartie Bay and Daedalus passage.²⁷ In 1854, a gold rush in the Queen Charlotte Islands occasioned the dispatch of Virago and Thetis to the north. Captain James Prevost and Master Robert Inskip produced charts of the harbours and anchorages surrounding the archipelago and proved that it consisted of two distinct land masses. HMS Virago also surveyed Vancouver's northern route, and parts of the Strait of Georgia and San Juan Islands. In 1853, the Hudson's Bay Company, and later HMS Virago, surveyed Departure Bay to accommodate the Nanaimo coal trade.

During the survey of the San Juan Islands, Prevost discovered that the international boundary was only imperfectly known. Future settlement²⁸ would necessitate an immediate resolution of the border question. In 1856, Prevost was appointed First Commissioner of the British Boundary Commission and given command of HMS Satellite to set the border on land and sea. He was to work in concert with the American Boundary Commission and with Captain George H. Richards of HMS Plumper, who was named Second Commissioner and Chief Astronomer. The secondary task of the Commission was to survey and chart the Northwest coast, and herein is where our story begins.

SKETCH MAP OF HARO ARCHIPELAGO, SHOWING THE THREE CHANNELS.



- - - - - LINE CLAIMED BY THE UNITED STATES.
 LINE CLAIMED BY GREAT BRITAIN.
 - - - - - PROPOSED MIDDLE CHANNEL.

Page 130.

In August, 1856, the President of the United States appointed Boundary Commissioners to act in concert with the British delegation. The primary mandate of the joint Commission was to determine the exact position of the forty-ninth parallel of latitude, and to conduct a survey of the coast. The Oregon question had been settled by a compromise between the United States and Great Britain. In exchange for an exclusive right to Vancouver Island, the British assented to fix the border permanently at the forty-ninth parallel. This arrangement was concluded on June 15, 1846, but was not without flaws. As Lieutenant Mayne of HMS Plumper later recalled, the difficulty concerned the territorial status of the islands between the continent and Vancouver Island:

Thence the Treaty stipulated that the line should pass southward through the channel which separates the continent from Vancouver Island to the Strait of Juan de Fuca. The Channel. But there were three. Were the most eastward of these meant, such a construction would give possession of all the islands of the Gulf to Great Britain. On the other hand, should the line, as the American Commissioners contended, be taken to₂₉ pass down the Haro strait, these islands would pertain to them.

On January 13, 1848, John F. Crampton, British Minister to Washington, had corresponded with the President of the United States, James Buchanan, on the inadequacy of existing surveys of the Georgia and Juan de Fuca Straits, and the need to establish a joint commission to clear up ambiguities concerning the water boundary line in the west. The earlier surveying expedition of HM Ships Herald and Pandora

...did not extend beyond the entrance to Hood's Canal on the South and Haro in the north, and thus the greater part of the space in the Gulf of Georgia, through the line of boundary, as provided by the convention of 15th of June, 1846, is to be carried, remains₃₀ unexplored.

Crampton noted his government's satisfaction with the amicable settlement of the border dispute at the Lake of the Woods, but added that it was not mirrored by the remaining problem of the Western water boundary, and,

prophetically, that "local circumstances render it probable that if this part of the line were not to be precisely determined, the uncertainty as to its course might give rise to disputes between British subjects and citizens of the United States."³¹

The Foreign Office proposed to settle the matter through the appointment of an Anglo-American Boundary Commission with plenipotentiary powers to determine the border on behalf of their respective governments, and in accordance with the Oregon Treaty. As Crampton noted:

For this purpose Her Majesty's Government are of the opinion that it might probably be sufficient that each government should appoint a naval officer of scientific attainments and of conciliatory character, and that those officers should be directed to meet at a specified time and place, and should proceed in concert to lay down the above mentioned portion of the boundary line.³²

The Boundary Commissioners were directed to mark the land border with a prominent monument; the water boundary was to be marked "in the centre of the channel between Vancouver's Island and the continent" by "the intersection of the cross-bearings of natural or artificial landmarks."³³ Furthermore, the Commissioners were directed to carry on down the centre of the "channel" and through the Strait of Juan de Fuca to the ocean, plotting the boundary on their survey working charts by the same method.³⁴

For Crampton and the Foreign Office, the "channel" referred to in the Oregon Treaty was assumed to be that used by Captain Vancouver in his initial exploration of Rosario Strait. "Generally speaking," Crampton argued, erroneously in retrospect,

...the word "channel" when employed in treaties means a deep and navigational channel. In the present case it is believed that only one channel - that, namely, which was laid down by Vancouver in his chart - has in this part of the gulf been hitherto surveyed and used; and it seems natural to suppose that the negotiators of the Oregon Convention, in employing the word "channel", had that particular channel in view.³⁵

The survey conducted of the area by Richards and Prevost in 1858-59 would

come to the opposite conclusion; in fact, Haro Strait was the deeper and more navigable of the two. This crucial fact, unveiled by the British Boundary Commissioners, would assist in the undoing of the British claim when it was arbitrated by the German Emperor in 1872.

Crampton thought that this question of interpretation should be agreed upon before the Commissioners commenced operations, "because otherwise much time might be wasted in surveying the various intricate channels formed by the numerous islets which lie between Vancouver's Island and the mainland, and some difficulty might arise in deciding which of those channels ought to be adopted for the dividing boundary."³⁶ He added that if the British interpretation were acceptable to the United States Government then it would only give Britain a few small "islets of little or no value," except the far more valuable Whidbey's Island which would be ceded to the United States.

In his communication to the President, Crampton enclosed a comprehensive proposed "Draught of Instructions" for Boundary Commissioners and which laid out the duties detailed above. Mathematical precision was not a priority in laying the water boundary "because the treaty stipulates that the navigation of the whole of the channel of the Gulf of Georgia and of the Straits of Fuca shall remain free and open to both parties."³⁷ The major issue for the Commissioners was the interpretation of the 1846 treaty; in 1856, the British instructions were revised to cover this potential stumbling-block to negotiations:

So long as there is only one channel separating the continent and Vancouver's island, no doubt can be entertained; and therefore the centre of the Strait of Fuca till it ceases to be the only Channel between the Continent and Vancouver's Island, appear to her Majesty's government to be fixed points in the line of boundary - it is only as regards the space between these two points that any difference of opinion as to the proper Channel can exist. There can be little doubt that the channel through Rosario Strait was the channel which

the negotiators of the Treaty had in view when they proceeded to define verbally the boundary between Her Majesty's possessions and those of the United States. It was at the time... the only³⁸ known navigable Channel, and was laid down as such on the charts.

The revised instructions predicted that the US Commissioner would insist on "the far less safe and convenient passage known as the Canal de Arro (Haro)"; Prevost would argue that this definition did not fit the terms of the treaty, which provided for the boundary proceeding in a southerly rather than - as the Americans seemed to wish - a partly westerly direction.³⁹

The revised instructions of 1856 included a summary of Douglas' case for Rosario Strait as the water boundary, originally submitted to the Colonial Office on February 27, 1854. Douglas' argument for Rosario consisted of four essential points: Haro Strait was not properly a part of the Gulf of Georgia nor of the channel leading from the Strait of Juan de Fuca; the stipulation that the "said channel" was to run in a "southerly direction" could only mean the Gulf of Georgia; furthermore, the Gulf extended as far south as McGloughlin's Island and from there the boundary would naturally follow down through Rosario Strait; and, finally, only Rosario Strait was feasible for the free passage of shipping to the Gulf of Georgia.⁴⁰

Prevost was cautioned by the Foreign Secretary to use his "utmost efforts" to convince the U.S. Commissioner of the veracity of British claims.⁴¹ Furthermore, if the British Commission concluded that Rosario Strait was not in accordance with the 1846 convention, then they "were at liberty to adopt any other intermediate channel which they may discover..."⁴² As the Foreign Office officially considered all islands in the archipelago to be natural "appendages" of Vancouver Island, the concession of Haro Strait to the United States was precluded. Moreover, if a stalemate ensued and compromise seemed impossible, Prevost was instructed to request that the matter be referred to higher authorities for judgement.⁴³

The secondary task of the British Boundary Commission was to undertake a hydrographic survey of the disputed area. In the fall of 1857,

it was... discovered that no accurate chart of the channels between the island and the mainshore... existed; that the position and extent of the group of islands among them were very imperfectly known; while the relative value of the channels themselves could only be arrived at from such meagre information as the masters of two or three Hudson's Bay Company's trading vessels were able to give.⁴⁴

HMS Plumper was commissioned for this purpose and Captain Richards was named Second British Boundary Commissioner; his mandate was "to make a complete survey of the disputed waters, and afterwards to continue it along the coasts of Vancouver Island and the mainland of British Territory."⁴⁵

HMS Satellite left Portsmouth for Vancouver Island on December 23, 1856. The Satellite had only just completed its preliminary sea trials as an auxiliary screw corvette and was still fitting for sea when commissioned for the boundary survey.⁴⁶ In contrast, the hastily selected Plumper was a barque-rigged steam sloop of 1848 vintage, outdated even by 1856 standards; it had recently been paid off after an extended voyage to the west coast of Africa, and when overhauled for repairs for the new commission was found to be rotten in many parts, adding considerably to the refit time.⁴⁷ Furthermore, its inadequacy for surveying duties necessitated the building of a chartroom on the upper deck; consequently, Plumper did not get underway until March 11, 1857, for Vancouver Island, then a six month journey via the straits of Magellan in South America.⁴⁸

This thesis is concerned with the hydrographic history of British Columbia; more accurately, it deals with the events that hindered the Water Boundary Commission and its emissaries in carrying out their mandate to survey the myriad harbours, inlets, roadsteads, and straits that form the inland waterways of British Columbia. The importance of this survey to navigators is well known; the depths of waters off Vancouver Island were

still only imperfectly documented, being based largely on the initial survey by Captain Vancouver, or on hearsay from local sailors. The survey would open the waterways to increased marine traffic, reduce the number of shipwrecks, and facilitate the growth of commerce and settlement of the western coast. The expedition would assist in the diplomatic settlement of the border question between the United States and the British possessions on the west coast, and would play a crucial rôle in the resolution of the controversy over the San Juan Islands, as well as open up to shipping what would later become a major settlement, the city of Vancouver, originally called New Westminster.

In addition, with the absence of a local authority capable of dealing with the problems of law and order and territorial sovereignty, the Royal Navy surveying vessels would serve as a crucial stabilising force, counterweighing lawlessness, American revanchism, and a recalcitrant colonial government. As this thesis will show, the ostensible purpose of the Water Boundary Commission, to set the border and survey the surrounding area, was subverted by Governor James Douglas who habitually called the vessels and men away from their "special duties," and used them instead as a waterborne police force for the maintenance of law and order and the assertion of British territorial sovereignty, and for other civil duties.

Douglas' use of the Royal Navy was fortunate for the preservation of peace in civil and military matters. Senior Naval officers serving on the Pacific Station did not relish their subordination to the adventurous colonial governor; though they carried out his orders efficiently, the ambiguity of their relationship to colonial authorities gave them an unprecedented freedom of action when dealing with local affairs. Naval Officers were aloof from local disputes, and thus upheld the larger imperial

interests of Whitehall rather than narrow, parochial, local concerns. Their sober influence helped stabilise the colonial frontier and can be credited with preventing war from breaking out over the invasion of San Juan Island.

The primary purpose of this thesis is an examination of the hydrographic survey undertaken by Richards, and to determine its contribution to the development of the colonies of Vancouver Island and British Columbia. In particular, it will deal with the actions of the surveyors to preserve British sovereignty, render assistance to the civil power in the preservation of law and order and in routine marine matters. In 1858 and 1859, HMS Plumper carried out the boundary survey and did some work in the Gulf Islands, Fraser River, Burrard Inlet, and the harbours of Victoria and Esquimalt. "Richards then systematically surveyed the waters of Vancouver Island in an anticlockwise direction."⁴⁹ In 1860, HMS Plumper was replaced by the larger and better equipped Hecate. To accommodate chart production ashore, Governor James Douglas provided Richards with use of the old Naval Hospital at Esquimalt, built for service during the Crimean War. Between 1857 and 1862, Richards became deeply involved in the civil affairs of the colonies, particularly marine matters. "Douglas and Richards achieved a rapport," wrote Sandilands; "the one providing the expertise on nautical matters and the other implementing the recommendations by funding and legislation."⁵⁰

Richards' assistance was rendered on a variety of civil matters related to the hydrographic survey. He headed the commission to establish the lighthouses at Race Rocks and Fisgard Island, and thus made Esquimalt and Victoria harbours navigable at night. A system of bouyage was established under Richards' auspices in the Fraser River in 1859, and a Sand Heads lightship was established on his recommendation in 1866. A pilotage service

was established and officers from HMS Plumper were appointed to grade examinations and award pilotage certificates. Richards "also made recommendations on wharf installations, harbour limits, appointment of harbour masters and instructions to lightkeepers, including a system of signals."⁵¹ In addition, Plumper's officers explored Vancouver Island and the mainland in missions instigated by the Colonial government, and brought back much valuable information on previously unknown areas of the colony. In order to keep coastal sailors apprised of changes in local nautical matters, Richards introduced the Northwest coast's first "Notices to Mariners" in 1859.

In 1862, Richards arranged for the survey of the northern British Columbia coast to continue under Daniel Pender commanding the Hudson's Bay Company vessel Beaver. The Admiralty allotted Richards £3,500 to lease the vessel, but he found that the task could not be accomplished for less than £4,000. Richards prevailed upon Governor Douglas to guarantee the balance and save the proposed mission. Douglas "was sufficiently farsighted to see the advantages to the young colony of a well surveyed coast" and agreed to provide the remaining £500 from the colonial treasury.⁵² Thus, the interests of both state and private sector coincided on a matter of military and commercial importance. The story of the Beaver is a well documented subject and forms no part of this thesis, but its mission forms part of the substantial contribution of Richards to the safety of navigation and exploration of the Northwest coast.

The most lasting legacy of the Hydrographic survey of 1857-62 is the naming of coastal features and bodies of water. Captain John T. Walbran, a local hydrographer, was sufficiently far-sighted to spend his retirement years in compiling a history of BC place names. When Walbran wrote British

Columbia Coast Names in 1906, the surveyors themselves were used as primary sources for the book. Had Walbran not acted on the matter before death took its toll, this rich history of the naming of the coast would have been irretrievably lost.⁵³ A large proportion of the entries in Walbran's book are attributed to Richards and the survey of 1857-62.

In many cases, Richards simply adopted names that survived from local custom or could verifiably be accredited to earlier explorers. In others, he adopted a naming scheme that was consistent with the names previously bestowed on larger geographical features, such as in Howe Sound and Jervis Inlet. Here Vancouver had honoured the heroes of Britain's naval victories; Richards followed his lead by naming local features after the ships and officers under their command. Where there existed no precedent in local or native custom or past exploration, Richards improvised by using the names of local notables, Indian tribes, prominent or unusual geographical features, British statesmen or naval officers, and, of course, the names of the surveyors themselves; even characters from Gilbert and Sullivan operettas were immortalized on the charts of the Northwest coast. Thus, aside from its published charts, the hydrographers are not without their memorials. Their most permanent commemoration is in the names of the islands, channels and rocks of the northwest coast; there are many which bear the name of a sailor who served in this first comprehensive examination of the British Columbia coast.

Richard Charles Mayne returned to England in 1861 and wrote Four Years in British Columbia and Vancouver Island.⁵⁴ The book was an instant success and had a marked effect on British public opinion. Mayne has since been credited with increasing British immigration to the colony. In addition, his drawings of the Northwest Coast and Plumper were published in the pages

of the venerable Illustrated London News in 1863.⁵⁵

The activities of the Royal Navy on the Northwest Coast have been examined by Barry Gough in a number of useful monographs. The Royal Navy and the Northwest Coast of North America 1810 - 1914 examines the political implications of British Maritime authority in the territorial acquisition and development questions of the nineteenth century. However, Gough deliberately avoided hydrographic surveying or other related sub-themes so as to keep the book general in its scope.

Gunboat Frontier: British Maritime Authority and the Northwest Coast Indians, 1846 - 1890 examines the "crisis management" policy relationship between the Royal Navy and the coastal Indians in the last half of the nineteenth century. Gough concluded that the Royal Navy acted as a waterborne police force in the enforcement of law in relations between the colonial and imperial governments and the coastal tribes. In this pursuit they were part of a worldwide pax britannica on an ocean platform. This localized form of "gunboat diplomacy" was a convenient means for the colonial authorities to enforce local agendas upon the natives at no cost to the local taxpayer, and with a power and authority that no constabulary or militia could have provided.

There are a large number of accounts that deal with "The Pig War" and the circumstances surrounding the occupation of San Juan Island by the United States Army. I do not intend to repeat these well-documented episodes in the history of British Columbia. Rather, I will address the contribution of the British Water Boundary Commission and HM Ships Plumper and Hecate to the safety of navigation in the inland waters of British Columbia, the settlement of its border, and the preservation of peace and order on the colonial frontier.

The most obvious limitation of this thesis is its limited use of available primary sources. The most complete depositories of original material can be found at the Admiralty Hydrographic Office in Taunton, England, and in the Admiralty Papers at the Public Record Office in London. It was impossible, due to financial considerations, to consult records located abroad; for this reason, research has been undertaken exclusively at archives located in British Columbia.

Foremost among these is the British Columbia Archives and Records Service (BCARS) in Victoria, B.C., which contains the official correspondence, inward and outward, of the colonies of Vancouver Island and British Columbia. In particular, the collection contains all Ship's Letters, the records of the Colonial Secretary, and the correspondence of private individuals to the Colonial government, which were used to examine the working relationship between G.H. Richards and colonial authorities. The journal of John Thomas Gowlan was useful for charting the day-to-day progress of the hydrographic survey. The records of the Pacific Station were consulted for the San Juan water boundary question and the Fraser River gold rush. In addition, all Admiralty reports and Command papers in which relevant navigational and hydrographic matters were communicated to the British government, may be found within the BCARS library of official manuscripts. In particular, the official Parliamentary report Papers Relative to the Affairs of British Columbia contains many important documents that are relevant to the history of the province.

The Library of the University of British Columbia contains the Colonial Office records for Vancouver Island and British Columbia on microfilm. These were instrumental in gauging the interplay between local civil and military authorities with Whitehall on such matters as the San Juan water

boundary dispute and the Fraser River Gold Rush. The newspapers of the time are available there on microform and were consulted to gauge public opinion and the civil action undertaken as a result of the Richards survey. In "Special Collections," the Ship's Dossiers of Admiral P.W. Brock clarified technical details on the naval vessels of the Pacific Station, and the published charts of the Hydrographic Office were consulted to confirm the completion dates of specific areas of operation.

This thesis is the first to concentrate solely on the Richards survey of 1857 - 1862. Other accounts have dealt with the hydrographic surveys undertaken by Captain George Vancouver and HBC Beaver, but for various reasons, the most important survey of all has been ignored by historians. Only the hydrographers Henry Parizeau and Robert Sandilands have written on the history of Northwest surveying, but they have not examined the Richards survey in sufficient detail. To date, there has been no account written on the Richards survey, its charts, or on the production of the first edition of the Vancouver Island Pilot.⁵⁶ This thesis will address at least part of this historiographical lacuna by concentrating solely on the activities of hydrographic survey and the Water Boundary Commission, and will gauge the ramifications that these have had on the history of British Columbia.

The first chapter deals with the history and imperial mandate of the Admiralty Hydrographic Office and the Fleet Surveying Service. It examines the development and rationale behind British policy in matters of exploration and discovery, and how these have pertained to the colonisation of the Northwest coast. The technological development of steam power and its effect on hydrography and the pax britannica is examined in reference to all of these. Finally, this chapter examines the historical development of hydrographic surveying and technology, and training of personnel.

The second chapter of this thesis examines the prosecution of the survey at sea and on land from 1857 to 1862. The first division of the chapter traces the chronological progress of the survey in light of significant developments in the maritime affairs of Vancouver Island and British Columbia. In particular, attention has been focused on the assistance provided to the civil authority in matters of port development, aids to navigation, and in personnel support to local marine administrative bodies.

The second division of this chapter examines the overland exploration expeditions undertaken for the benefit of the colonial authorities. The explorations have been examined in light of their significance in the preparation for the anticipated influx of immigrants to the Northwest coast.

As the land and sea explorations of the Richards survey are, to date, nowhere in print, this chapter is written in narrative form and the prosecution of the survey is reported chronologically as significant events unfolded. This aspect of the exploration of the Northwest coast will be one original contribution of this thesis to the history of British Columbia and Vancouver Island.

The third chapter will examine the historical significance of the survey in light of significant geo-political and economic developments in the Northwest colonies, and in the area of race relations. There are three major historical issues which must be considered: the role of the Water Boundary Commission in the Fraser River Gold Rush of 1858 - 1859, and in the mineral exploitation of the lower mainland; in the San Juan Water Boundary dispute of 1859; and in the enforcement of law and order amongst the coastal tribes.

The San Juan Water Boundary dispute has been examined in detail by other historians. This division will concentrate specifically on the

contribution of the Water Boundary Commission and hydrographic survey to the larger theme of knowledge-gathering as a source of British imperial "power," and will be assessed in light of significant political developments between the United States and Great Britain.

Barry Gough and Robin Fisher have examined the subject of race relations and the Royal Navy in some detail, but do not concentrate specifically on the contribution of the Hydrographic survey of 1857 to 1862. Police action against the coastal tribes is an essential component of the use "Gunboat diplomacy" on an imperial scale and thus must be taken into consideration in this thesis. Race relations is a related sub-theme of "knowledge as power," and constitutes, to a large degree, the historical importance of the survey to the civil history of Vancouver Island and British Columbia.

This thesis has emerged from a paper written on the subject for Professor Charles Humphries of the University of British Columbia entitled "The British Water Boundary Commission and the Problem of Colonial Territorial Sovereignty 1857-1860." However, this paper dealt with only the San Juan water border dispute of 1859, and is thus only a partial analysis of the unique contribution of the Richards survey of 1857 - 1862 to the settlement of British Columbia and Vancouver Island.

This thesis will deal with the hydrographic survey of the BC coast and the international boundary settlement conducted by HM ships Plumper, Satellite, and Hecate from 1857 to 1863. It will examine the geo-political importance of the pursuit of "knowledge as power" in light of American expansionism and the utilisation of the surveyors as a significant force of law and order; their importance to the social and commercial development of BC; and their contribution to the safety of navigation and the exploration

of the BC coast.

The aim of this thesis is to explore a hitherto neglected aspect of BC history. A secondary aim is to contribute to the history of the Admiralty Hydrographic surveys that have encompassed the entire world from 1795 to the present day. Existing scholarship has been deficient in both areas, being composed largely of travel journals or HMSO tomes that contribute inadequate analysis of individual survey missions. This thesis will address at least part of this lacuna, and thus will make an original contribution to the history of the exploration and discovery of Vancouver Island and British Columbia.

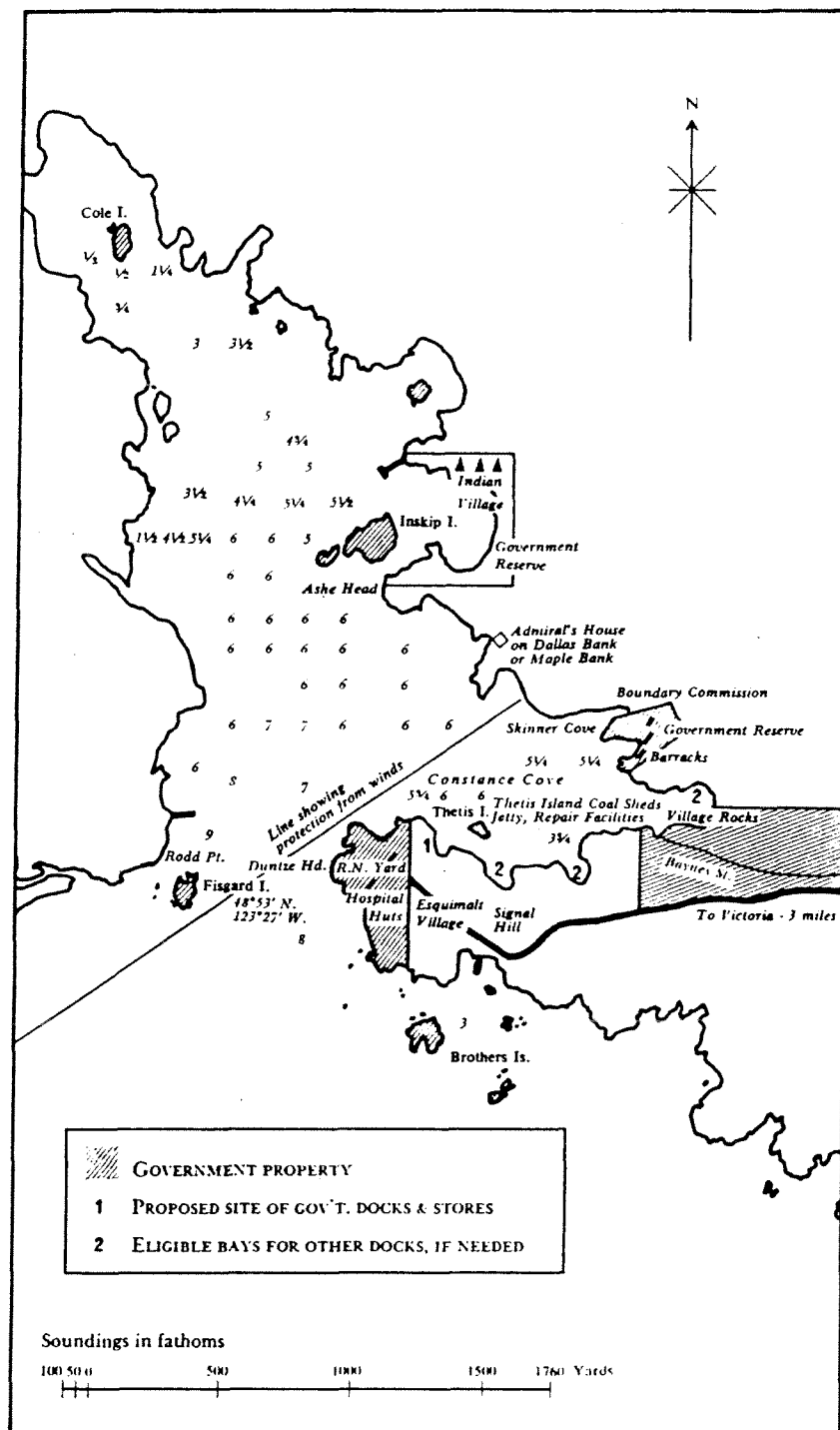
NOTES

1. George S. Ritchie. The Admiralty Chart. (London: Hollis & Carter, 1967), p. 189.
2. George S. Ritchie, "Great Britain's Contribution to Hydrography During the Nineteenth Century," Journal of the Institute of Navigation, Vol. 20, No. 1 (January 1967), p. 2.
3. Henry D. Parizeau, "Hydrographic Survey of the North-West Coast of British North America, from the Earliest Discoveries to the Present Time," British Columbia Historical Association Fourth Annual Report and Proceedings, November 1925.
4. Ritchie. idem
5. idem
6. Peter Padfield. Rule Britannia: The Victorian and Edwardian Navy. (Routledge & Kegan Paul, 1981), p. 124.
7. Ritchie. op. cit., p. 199.
8. Tony Campbell, "Episodes from the Early History of British Admiralty Charting," in The Map Collector, No. 25, December 1983.
9. Ritchie. op. cit., p. 197.
10. ibid., p. 198.
11. Robert S. Sandilands, "The History of Hydrographic Surveying in British Columbia," Explorations in the History of Canadian Mapping: A Collection of Essays. (Ottawa; Association of Canadian Map Libraries and Archives, 1988), p. 115.
12. George S. Ritchie. "Great Britain's Contribution to Nineteenth Century Hydrography," op. cit., pp. 8-9.
13. idem. Surveys in Australia were conducted on major ports using Royal Navy surveyors on loan from the Admiralty.
14. Padfield. op. cit., p. 138.
15. ibid., p. 139.
16. ibid., p. 141.
17. idem.
18. Henry D. Parizeau, "Hydrographic Surveying of the Northwest Coast of British North America, from the Earliest Discoveries to the Present," 4th Annual Report and Proceedings of the British Columbia Historical Association, 1929, pp. 10-11.
19. idem
20. idem.
21. Sandilands, "The History of Hydrographic Surveying in British Columbia," op. cit., p. 115.
22. idem.
23. Quoted in idem.
24. Harold J. Seaborg, "The First West Coast Charting Surveys; Early Explorers and Navigators," The Sea Chest, Vol. 24, No. 2 (December 1990), p. 51.
25. Sandilands, "The History of Hydrographic Surveying in British Columbia," op. cit., p. 117.
26. ibid., p. 119.
27. idem.
28. idem.
29. Richard Charles Mayne. Four Years in Vancouver Island and British Columbia: An Account of their Forest, Rivers, Coasts, Gold Fields, and Resources for Colonization. (London: John Murray, 1862; reprinted 1969), p. 139.

30. Archie W. Shiels. San Juan Islands: The Cronstadt of the Pacific. (Juneau, Alaska: Empire Printing Co., 1938), p. 147.
31. Ibid., p. 148.
32. Idem.
33. Idem.
34. Idem.
35. Ibid., p. 149.
36. Idem.
37. Ibid., p. 151.
38. James O. McCabe. The San Juan Water Boundary Question. (Toronto: University of Toronto Press, 1964), p. 20.
39. Ibid., p. 21.
40. Idem.
41. Idem.
42. Idem.
43. Idem.
44. Mayne. op. cit., p. 10.
45. Idem.
46. P.W. Brock. Ship's Dossiers. HMS Satellite pamphlet.
47. Mayne. op. cit., p. 10.
48. Idem.
49. Robert S. Sandilands, "Hydrographic Charting and Oceanography on the West Coast of Canada from the Eighteenth Century to the Present Day," Proceedings of the Royal Society of Edinburgh, (B), 73, 9, 1971/72, p. 77.
50. ibid., p. 78.
51. idem.
52. idem.
53. Nor do Walbran's personal papers, correspondence, and book drafts survive to any extent. The book remains his most lasting contribution to BC history. See James T. Walbran. British Columbia Coast Names. (Victoria, BC; Government Printing Office, 1909), passim.
54. Mayne. op. cit. passim.
55. The British Colonist, April 16, 1863. Mayne's true effect on nineteenth-century immigration patterns is probably unguageable, but I have spoken with at least one individual who attributes his presence in British Columbia today to Four Years in British Columbia. Apparently, his great-grandfather was so impressed by Mayne's flattering portrait of the Northwest Coast, that he settled there permanently.
56. George H. Richards. Vancouver Island Pilot: Sailing Directions for the Coasts of Vancouver Island and British Columbia. (London: Hydrographic Office, Admiralty, 1861).

CHAPTER ONE:

The Mid-Victorian Navy and Britain's Global Ascendancy



ESQUIMALT NAVAL BASE, EARLY 1860's

This chapter will place the British Boundary Commission and the Hydrographic survey of 1857 - 1862 within the context of significant developments in international affairs, Admiralty policy, and scientific and technological advances. It will examine how these developments have shaped naval training and personnel policies, and how it affected the selection and career development of significant individuals. The political climate of the Northwest colonies, particularly with regards to the coastal tribes, has been included with respect to all of these.

The Pacific Station was created in 1837 out of the western portion of the old South American Station in response to the expansion of British commercial interests in South America and California.¹ Its boundaries extended from the Bering Strait to the Antarctic circle, and from Cape Horn to 170° West.² Until its abolition in 1905, the Pacific Station was the Royal Navy's largest area of operations on the globe.

Though largest in area, the Pacific squadron was not apportioned a corresponding number of ships. In 1861, there were 66 warships deployed on the China and East Indies Station, 40 in the Mediterranean, 23 in the North American and West Indies Station; 15 apiece on the Pacific and West African Stations; 11 at the Cape; 9 off the South-east coast of South America, and 9 in Australia.³ Between 1845 and 1865, the number of vessels in the Pacific squadron ranged from nine to sixteen, and after the San Juan crisis, there were never fewer than twelve.⁴

Until 1863, the Pacific Station headquarters was at Valparaiso, Chile, thousands of miles from the Northwest coast. British territorial claims were considerably weakened by the lack of naval defence. Unless U.S. immigration could be checked and British control firmly established, the British stood to lose the Northwest colonies as Oregon had been in

1846. There simply were not enough ships to go around. The Pacific Station mirrored the British problem on a world scale. The range of responsibilities was so epic in its scope that it prompted one First Lord to complain,

From Vancouver's Isle to the River Plate, from the West Indies to China, the Admiralty is called upon by Secretaries of State to send ships... The undeniable fact is that we are endeavouring to do much more than our force is sufficient for. It is fortunate that the world is not larger, for there is a limit to the service of the fleets.⁵

The fleet was Great Britain's primary instrument of foreign policy, or, to paraphrase Von Clausewitz, it was British diplomacy carried out by other means. After the defeat of Napoleon in 1815, the Royal Navy carried out an impressive array of peacetime duties: facilitating the growth of British trade overseas and the expansion of the Empire, the protection of commerce at sea and ashore, the defence of British interests in the role of a "policeman", and acting as a surveyor and guide. Though there were no major wars between the Great Powers in the nineteenth century, the Royal Navy never lost its role as the "big stick" in British diplomacy.⁶

In 1860, the Mediterranean fleet was ordered to bombard Athens if the Greek government refused to pay damages to Don Pacifico, a Gibraltar Jew and British subject, for the burning of his establishment by angry locals. The incident was condemned as bullying on an international scale, even by Queen Victoria herself.⁷ Viscount Palmerston, the Prime Minister, was unperturbed by protests, maintaining,

As the Roman, in days of old, held himself free from indignity, when he could say Civis Romanus Sum; so also the British Subject, in whatever land he may be, shall feel confident that the watchful eye and strong arm of England will protect him against injustice and wrong.⁸

"Diplomats and protocols are very good things, but there are no better peace keepers than well-appointed three-deckers," reasoned Palmerston. During the 1850's, the Royal Navy was carrying out African slave patrols,

debt-collecting expeditions in Latin America, campaigns against piracy in the Red Sea and the East Indies, enforcing British claims in Malaya and Burma, and aiding missionaries and traders. In addition, the British government was committed to the freedom of the seas and expected a growth in international trade, contacts, and goodwill from its adoption throughout the world.⁹ To further this aim, the British charted and explored the entire world and made the results available to all nations.

The Army too was involved in foreign entanglements. In addition to standing garrison duties in India, there were actions against the Zulus, the Ashante, the Burmahs, the Egyptians, the Afghans, and the Dervishes.¹⁰ But the Army was overextended in its range of responsibilities. In 1861 the Committee for Imperial Defence concluded that the Army alone was inadequate to safeguard British interests overseas and that naval supremacy was essential to secure against foreign and internal aggression.¹¹

The Palmerston legacy was the cry "send a gunboat." The small manoeuvrable vessel was to enforce the pax britannica in distant colonial territories.¹² "Backed by floating batteries the gunboat would provide an economical form of coastal defence," noted Preston and Majors; "which, it was hoped, would be more than a match for anything a potential rival could set against it."¹³ In 1859, the gunboat was used to great effect to exact trading concessions from the Chinese. A British defeat at the Peiho River was answered by a fleet of gunboats sent to exact revenge, destroy the Emperor's Summer Palace, and stamp out piracy. Similarly, when an English merchant was beheaded by a Japanese Samarai for some perceived breach of local protocol, gunboats were sent to shell Kagoshima until terms were exacted from the local warlord.

Britain had more pressing imperial concerns than British Columbia

or Vancouver Island. India was in full revolt during the Mutiny of 1857. The Crimean War raged from 1854 to 1856, a huge expense in terms of money and arms, and cost a quarter million men dead.¹⁴ The Empire was expanding rapidly but was not firmly established in those new territories which often had to be wrested by force from their inhabitants. The Northwest colonies, by contrast, had a small population of whites, a relatively obliging native population, and no immediate external threat from other nations. Therefore, they did not seem to merit a garrison and were deemed able to finance their own defence and local government. The Northwest coast was a low priority for the British government and remained, then as later, an imperial backwater.

Interest in Pacific exploration was to peak in the nineteenth century after Captain Frederick William Beechey's 1826 mission to the Pacific and the Bering Strait in HMS Blossom to locate the Northwest passage. The voyage demonstrated the Admiralty's belief that "knowledge is power" since the scientific and hydrographic information it collected made it the logical sequel to the voyages of Cook and Vancouver.¹⁵ Beechey's 1831 memoir drew attention to the potential of the Northwest for exploitation, and of San Francisco for military defence. In response, the Hydrographic Office sanctioned further exploration of the Eastern Pacific.¹⁶ HMS Beagle was sent to survey South America to Ecuador, and the Sulphur and the Starling were sent to complete Beechey's charts of San Francisco, the mouth of the Columbia River, and other areas between Valparaiso and Alaska.¹⁷

Until 1846, the Oregon Territory was held jointly by Great Britain and the United States. The Hudson's Bay Company (HBC) possessed several trading posts on the Columbia River, and even after the transfer remained the only semblance of authority in the region. During the 1839 survey of the Columbia River, Sir Edward Belcher, the commander of HMS Sulphur,

ignored the American right of occupation and assumed that the territory was British.¹⁸ Belcher harshly criticized the HBC for being unable to provision his ships, and for harbouring missionaries thought to be agents of the American government. Belcher's criticisms were dismissed by HBC officials in London but he awakened the government to the threat that the Americans posed to British sovereignty on the Northwest coast. However, Whitehall was not willing to risk war for the sake of the HBC if trading rights could be guaranteed by peaceful means.

The British priority was trade, preferably by means of "informal empire" - meaning local commercial suzerainty - if possible, or by "formal empire" if necessary, which required the assumption of legal jurisdiction and military control over a particular trading area in order to safeguard commerce. The terms of the Oregon treaty of 1846 guaranteed HBC trading rights and compensation was paid for the loss of their chartered monopoly. Though British policy changed after 1840 as they became involved in disputes over Oregon, Hawaii, and to a lesser degree, Upper California, the main concern was free trade not conquest.¹⁹ Trade may well follow the flag, but it mattered little to the British whose flag was flying provided commerce was unimpeded.

The Oregon Crisis prompted the Royal Navy to reinforce their presence on the Northwest Coast. James K. Polk was elected to the Presidency of the United States largely on the slogan "Fifty-four Forty or Fight," and clearly intended to expand the western border to Russian Alaska. However, when the possibility of war seemed greatest the Pacific squadron possessed only fifteen ships. Admiral Seymour sent HMS Cormorant and the coalship Rosalind north and lobbied the Admiralty to provide ships for duty in Puget Sound.²⁰ Even after 1846, the Royal Navy continued to patrol the Columbia

River to support the HBC at Fort Vancouver.

After 1846, the HBC remained the principal authority on the Northwest Coast, including the Oregon territory. After Indians massacred whites at Walla Walla in 1847, the HBC urged that a British war vessel be permanently stationed on the Columbia River.²¹ Rear-Admiral Geoffery Phipps Hornby refused, claiming that U.S. territory was no longer within his jurisdiction. However, he sent HMS Constance in 1848, the Inconstant in 1849, and Driver in 1850, to visit the Columbia country and maintain order if needed.

The Oregon Treaty granted Great Britain Vancouver Island and set the border at the 49th parallel. Britain sought to consolidate its territorial claim through colonization. The HBC was not entrusted with this task since its previous efforts had been half-hearted. The Colonial Office considered that the numerous harbours of Vancouver Island rendered it ideal for settlement, and that the establishment of a Royal Navy base at Esquimalt would alleviate any threat posed by the U.S. Navy at San Francisco.

Vancouver Island became a Crown Colony in 1849, but the HBC men remained in control of its political and economic affairs. They chose not to cooperate with the newly appointed governor, Richard Blanshard, on matters of defence. Blanshard advised the Colonial Secretary that a garrison was necessary to protect the colony from coastal tribes and American hegemony. The HBC dismissed the proposal as unnecessary and declined to bear the expense. No garrison was sent and from then until the establishment of the base at Esquimalt in 1865, the occasional calls of the Pacific squadron were the colony's only defence.²²

Blanshard lost credibility with both the HBC and the Colonial Office for his actions against the Newwitty Indians in 1850. The murder of three

deserters from the HBC ship Norman Morrison demanded action but the expedition went too far. The corvette HMS Daedalus, with Blanshard aboard, was sent to apprehend the culprits or punish the tribe as needed. Daedalus failed to capture the murderers as the tribe had fled, but managed to destroy all the canoes and lodges left behind. Blanshard appealed to the Commander-in-Chief, Rear-Admiral Fairfax Moresby, for help. He sent the sloop Daphne, with Blanshard aboard, in July 1851. The incident ended in bloodshed and with the destruction of the Indian village. To avoid further punishment, the Newitty shot the alleged culprits and delivered the bodies to the authorities. The British believed that Indians understood the tactic of punishing the whole tribe for the actions of a few, and that this method would prevent future occurrences of violence against whites. "The white man's blood never dries" was the implicit message in armed action against the coastal tribes.²³

However, Blanshard was strongly rebuked by the Colonial Secretary, Lord Grey, for engaging in such high-handed reprisals.²⁴ In a despatch from London, Blanshard was admonished for undertaking to protect persons who voluntarily put themselves at risk by travelling in the Indian lands, and for exacting a greater measure of retribution than was thought consistent with the nature of the crime.²⁵ James Douglas remarked that punishing the whole tribe for the actions of a few was "as unpolitick as unjust" and may well provoke an Indian war between the Newitty and their principal accusers and enemies, the Fort Rupert Kwakiutl.²⁶ Punishing entire tribes for criminal acts was rarely resorted to afterwards since it seemed only to worsen matters by provoking tribal enmity but without significantly preventing crime. Later that year, Blanshard, weary of his untenable position, resigned the governorship and was replaced by Douglas.

Until 1850, no Royal Navy vessel had been stationed permanently on the Northwest Coast. It was not until the Fraser River Gold Rush of 1858 that two gunboats were sent to patrol the area on a regular basis. Douglas desired an armed government or naval steamer to defend the colony, and believed that colonization would fail if the British government continued its indifference to colonial defence. By 1853, Whitehall had changed its position on the threat of American expansionism and measures were undertaken to strengthen the British position on the Northwest Coast. Henceforth, Vancouver Island and British Columbia would be completely reliant on the Pacific squadron for defence.

The Crimean War broke out in 1854 and the British focused on the Northwest colonies as a source of vital war resources and as a base of operations against Russian Empire. Coal and spars were no longer available from Europe and the Admiralty turned to Vancouver Island as an alternate source. Esquimalt harbour had proved valuable during the Oregon crisis and would be a natural base of supply and operations for war in the Pacific. A naval depot and hospital were constructed to meet naval requirements but, due to the termination of hostilities in 1856, were never used. However, the Admiralty was obliged to bear the expense of construction to the colonial government, and the Commander-in-Chief, Rear Admiral Bruce, elected to retain the buildings to form the nucleus of a permanent naval base.²⁷

In February 1859, an Admiralty memorandum recommended that the Station headquarters be transferred from Valparaiso to Esquimalt to provide a basis of future operations against the United States or Russia. "If these powers have dockyards and resources in the North Pacific, and we have not, for every shilling spent by either of them... we shall spend a guinea," wrote one Admiralty official.²⁸ Since Britain held only British Guiana in South

America, the move was a logical choice. The proposed move would shorten the journey to China from three-and-a-half months to two, and communications with Britain would be facilitated by use of the Pony Express from St. Louis. When the telegraph link reached British Columbia, communication with Britain would take only three days.²⁹ British commercial concerns in South America could be more economically and as efficiently protected through the occasional calls of warships as by the relative proximity of the Station headquarters.³⁰

The threat posed to the Northwest colonies was not hypothetical. The diplomatic climate between Great Britain and the United States became increasingly hostile over territorial and political issues throughout the 1860's. The San Juan issue nearly led to war, but even its peaceful resolution did not ameliorate international tensions or the fear that American expansionism generated in the British North American colonies. The seizure of Confederate emissaries, James Mason and John Slidell, from the British steamer Trent by a Union warship also nearly led to war and precipitated calls from British hawks for immediate retaliation. From the American perspective, the British had wilfully permitted the escape of the Confederate raider Alabama from a British Port, and thus were culpable for the extensive losses that it inflicted on Northern shipping during the war.³¹

The 1861 Queen's Declaration of Neutrality recognised the Confederate States and granted them "Belligerent" status in international law. British authorities were to grant favour to neither side in the ensuing conflict, ostensibly as a fair play gesture. This merely recognised the political reality in Britain at that time, which was largely pro-Confederate, but it also enabled the British to continue the cotton trade with the South. This benefitted Britain economically and also aided in financing the Confederacy's war effort. Feelings in the North were greatly hardened

against Britain for aiding their Southern enemies. Peace was preserved largely due to the forbearance of President Abraham Lincoln, whose "one War at a time" policy ensured that cooler heads prevailed at least until the cessation of hostilities.

After the war, diplomatic relations again declined over the Fenian raids issue, whereby hundreds of disgruntled Irish-Americans, many recently demobilized from the Union Army, quixotically sought to capture Canada and hold it in ransom for an independent Ireland. American response to British entreaties was perceived by the British as lethargic and reluctant, tantamount to approval. Diplomatic relations were not normalized until the 1870's when mutual grievances were settled by the award of claims to injured parties on both sides.

The Surveying Service of the Royal Navy was an "unfashionable division of the fleet, which everyone with any hope of becoming an Admiral steered clear of."³² It was a unique organisation within the fleet. Members received extra pay for their expertise and usually remained in the branch for their entire career despite the hardship, isolation, and limited prospects for promotion that it entailed. Since officers in the Service were specialists and the department was small, promotion tended to be limited and somewhat slow. However, in contrast with the regular navy, career advancement tended to be solely based on merit rather than patronage or family privilege.

The Surveying Service fell under the authority of the Hydrographic Office and was financed by the "Scientific" Vote of the Admiralty budget. The Hydrographic Office was numerically small and underfunded, and possessed only a small fleet of specially adapted sloops and small frigates. Yet despite meagre resources, the Office and Service managed to chart most of the waters of the world with a high degree of accuracy.

In 1848, Sir Francis Beaufort presented a summary of the activities of the Hydrographic Office to the British Parliament. The Honourable members were astonished to find that, since its establishment in 1795, this "insignificant sub-office of Admiralty" had been accomplishing a herculean task without anyone really being aware of it. This was to change: the dictum "Safe as an Admiralty Chart" was to enter into common parlance during the last half of the nineteenth century.³³

George H. Richards spent nearly his entire career in the service of the Hydrographic Office. He possessed wide experience in naval and diplomatic matters and was especially suited for leadership in the British Water Boundary Commission and the survey of the coast. Richards' technical competence and fitness for command were recognised at an early stage in his career and this groomed him for rapid promotion. In addition, the demand for hydrographers had kept him almost continuously employed at sea throughout his career and in nearly every corner of the globe. In 1835, he served on HMS Sulphur during the Pacific surveys and later served in the Chinese War of 1838-1840.³⁴ From 1842 to 1845, Richards served on HMS Philomel for the survey of the southeast coast of South America. During this commission, Richards assisted in the action against "the tyrant of Buenos Aires," Juan Manuel Rosa, and distinguished himself by leading the assault on the forts on the River Parana.³⁵ From 1847 to 1852, Richards was on the New Zealand survey, and from 1852 to 1854 served in Sir Edward Belcher's arctic search for Sir John Franklin on HMS Assistance.³⁶

James Prevost was chosen as First Boundary Commissioner because of his considerable experience in the Northwest coastal waters as commander of HMS Portland in 1850 and HMS Virago from 1852 to 1854. In Virago, Prevost and Master George H. Inskip surveyed the Queen Charlotte Islands, parts



Officers of H.M.S. "Plumper" and the captain's wife at Victoria, photographed between 1858 and 1860. Sitting, l. to r.: Sub-Lieut. E. P. Bedwell, 2nd Lieut. R. C. Mayne, Mrs. G. H. Richards, 1st Lieut. William Moriarty. Standing: Ship's doctor, probably Dr. Wood; W. H. J. Brown, Paymaster; Capt. G. H. Richards, Surveyor and Boundary Commissioner; Lieut. Daniel Pender, 2nd Master.

of the Gulf of Georgia, Houston Stewart Channel, Naden and Masset Harbours,
37
and the area around Port Simpson. Prevost, however, was not without his critics. Some lacked confidence in his ability to head the Boundary Commission. During the San Juan crisis, Lieutenant F.W. Richards, a future Sea Lord then serving on the flagship, wrote to his father that "Captain Prevost of the Satellite is not the man to cope with such a keen Yankee lot as are opposed to him."³⁸ In addition, Prevost was not, technically speaking, a surveyor, despite his previous charting experience, nor was HMS Satellite a surveying ship.

HMS Plumper carried personnel sufficient to perform a variety of duties afloat and ashore. The First Lieutenant was William Moriarty and Richard Charles Mayne was Second Lieutenant.³⁹ Philip J. Hankin was First Mate until ordered home in 1858. At Richards' special request, he was appointed First Lieutenant on HMS Hecate in 1860 when it was assigned to the Pacific Station.⁴⁰ John A. Bull served as Master until his death in 1859, and was succeeded by Daniel Pender, and in 1860, by Edward P. Bedwell. John Thomas Gowlan and G.A. Browning were subsequently promoted Second Master. The Chief Engineer was Francis Brockton. David Lyall was the listed ship's surgeon, but was seconded ashore to the British Land Boundary Commission until ordered home in 1859. In practice medical duties were performed by Assistant Surgeon Charles Forbes and Medical Assistant Samuel Campbell.⁴¹ William Elliot was Paymaster until 1858 and was succeeded by William H. Brown. William A.G. Young was officially listed as Ship's Paymaster, but in fact served ashore as Colonial Secretary of Vancouver Island.⁴²

Until the 1850's, ship's crews were disbanded upon the completion of a commission. "Continuous service" engagement was established which

replaced the wasteful practice of releasing trained seamen after every voyage. In addition, impressment was abolished. This professionalisation of the Lower deck gave Jack Tar a new affluence and respect in the public mind. The time-honoured perception of sailors as dregs of society for whom the Navy was the only refuge from gaol or Australia, would be supplanted by the Gilbertian image of "bulwarks of England's greatness."

Not coincidentally, the lot of lower deck sailors improved substantially during the mid-nineteenth century. In 1857, ratings were dignified by uniforms for the first time.⁴³ On the advice of Fleet medical authorities, the unsanitary "slop chest" system for clothing sailors had been abolished and health improved overall. Pay and benefits were increased, a rudimentary pension plan was established, and shore leave became a right not a privilege. Consequently, morale improved within the Service and many sailors chose to re-enlist after their term ended, and the desertion rate on many vessels subsided. In addition, more young men than ever before were opting for naval careers.

The severe Nelsonic code of discipline was liberalised by the Naval Discipline Acts of 1861 and 1866. Even as late as 1860, a Royal Marine servant was hanged from the yard-arm in the East Indies Station for the crime of attacking his officer.⁴⁴ But after 1861, the "cat-'o'-nine-tails" was no longer "king." As Lord Charles Beresford described it: "Then, the 'cat' and no discipline; now, the discipline and no 'cat'."⁴⁵ The new regulations were still quite harsh, however, since flogging remained in standard use until abolished as a peacetime punishment in 1871. "I wish to remain in the Surveying Service," Edward P. Bedwell explained to his brother in Australia; "for although work is hard the discipline is not so severe. I have not had a single disturbance since I have been in the Plumper...

such a fact I think speaks volumes for the Captain and Surveying Service."⁴⁶

In fact, Richard's moderation in matters of discipline earned him considerable dividends in the prevention of desertion. Only seven men deserted throughout the entire commission, and this was to seek gold in California or the Fraser River, and not to flee the "cat." Richards was not averse to using corporal punishment when needed, but, generally, he was a very capable leader who was popular with his officers and men. Plumper was, in short, a "happy" ship.

The training of Naval Officers differed from that of the crew, who learned on the job. It commenced at a very early age at either the Royal Naval College at Portsmouth, or, most commonly, at sea.⁴⁷ Once training was complete, it became the onus of the individual to secure an appointment aboard one of Her Majesty's Ships. Most appointments were based on an individual's "interest" - the patronage of senior officers. Generally, officers were selected on the basis of family ties rather than navigational competence and, in consequence, the Navy began to resemble "a monopoly of certain families."⁴⁸

The appointment of officers expired on the end of the commission. The officer was then placed on "half pay" until a new appointment could be secured.⁴⁹ Promotion necessitated continual employment at sea and the dearth of ships made this untenable for most. Generally, only one-third of listed junior officers and one-tenth of Captains could obtain billets.⁵⁰ As Padfield observed, "For every sour 'Old Mate' rotting on board ship there were scores of Midshipmen and Lieutenants rotting on half pay ashore."⁵¹ However, since there was no "Retired list," once an officer was promoted Captain he remained eligible for promotion to flag rank in order of seniority regardless of whether he went to sea again. Vacancies in the higher echelons

of the Service became available only through resignation or death and, consequently, the average age of an Admiral in mid-century was seventy-six.⁵²

Specialist officers such as Paymasters and Surgeons were "warranted," not commissioned, and held no executive authority at sea. The most important was the Sailing Master who navigated the ship and had charge over a few assistants. However, responsibility for the safety of the ship remained the sole prerogative of the Captain.⁵³ The Ship's Paymaster was responsible for victualling, provisioning and pay. The heads of departments, Chief Gunner, Boatswain, and Carpenter, and those from civilian professions, the Chaplain, Schoolmaster, and the Surgeon, were responsible for those specific areas of jurisdiction in the daily routine of the ship.

The Admiralty Hydrographer, Captain John Washington, gave Richards comprehensive instructions to guide him in the prosecution of the survey and on the duties to be performed for the Boundary Commission. During the voyage to Vancouver Island, he was to search for Vigias, detached shoals found far out to sea, and add as much information to charts of the recent deep-water survey of USS Dolphin as possible.⁵⁴ Richards was directed to maintain good relations with the Hudson's Bay Company and to obtain their charts for use as a guide to his own survey. In addition, he was to liase with the officers of the United States Navy hydrographic department and to transmit what charts he could obtain to the Admiralty. Where possible, Richards was to collect specimens and analyse the natural history and geology of Vancouver Island with the Ship's surgeon, Charles Forbes, being provided with collecting equipment for this purpose.

Richards was given eleven marine chronometers to determine meridian distances, and was directed to gauge their accuracy closely on the passage to Vancouver Island. If any should prove unreliable, they were to be landed

and replaced at Valparaiso. The variation and deviation of the magnetic compass were to be calculated by daily azimuth and amplitude readings and the results reported to the Compass Department of the Admiralty.

Meteorological readings were to be logged daily for the records of the Hydrographic Office. In addition, Richards was to examine the harbours of Rio de Janeiro, Valparaiso, and Honolulu in order to update charts and the current edition of the Admiralty Sailing Directions for the northern Pacific Ocean.⁵⁵

Upon arrival at Vancouver Island, Richards was to assist Captain Prevost in setting the border at the 49th Parallel. Once the land border was settled, Richards was to survey the Inland passages between Vancouver Island and American territory, and to connect it with Kellet's 1847 survey of the Strait of Juan de Fuca, Rosario and Haro Straits. Once Boundary Commission duties were complete and HMS Plumper was no longer required, Richards was to survey the "Gulf of Georgia and the harbours of Vancouver Island, according to their importance."⁵⁶ "Of this," Washington added; "you will be the better judge on the spot than any one here."⁵⁷ Richards was to pay particular attention to coal areas and shipping supply centres. "You will not fail to send tracings of all surveys and places, and copies of all descriptions and Sailing Directions," wrote Washington; "in order that where expedient they may immediately be communicated to Lloyds and made public for the benefit of sailors in general."⁵⁸ Washington set no time limit on the prosecution of the survey but it was estimated that it may take seven or eight years.⁵⁹

Surveying in the nineteenth century was an extremely tedious and monotonous task. In spring and summer, men and officers were required to spend long hours in open boats measuring the depth of water and taking

fixes to establish their exact position. They landed on rocky shores to fix the positions of bays, inlets, and other features. In wintertime, surveyors would chart the results.⁶⁰ Yet amidst the tedium, the surveyors had to pay strict attention to their duties lest one error of position should render useless an entire day of labour.⁶¹ Only strict dedication to accuracy could justify the popular phrase, "Trust in God and an Admiralty Chart."

The principle which surveying is conducted is one of restless energy; even the most unwilling of volunteers finds himself goaded into perpetual activity by the example and precept of his seniors... It is a new life entirely different from man-of-war routine... Surveying forms the basis of conversation, for it is seldom indeed that any other subject is introduced.⁶²

"Surveying is pretty hard work for a naval officer," wrote Bedwell to his brother; "I can assure you compared with the other part of the navy and the extra pay a surveyor gets he deserves."⁶³

British Hydrography of Richards' time was in the Beaufort tradition. Surveying methods were to be gleaned from the pages of Beaufort's General Instructions to Hydrographic Surveyors, published in 1850 and still used in 1967. The book was standard issue to survey ships and was "to be studied carefully and the directions in them adhered to closely by all Hydrographic Surveyors in H.M. Navy."⁶⁴ "The Hydrographic Surveyor should be alert to take advantage of his opportunities of adding to the general scientific knowledge of the world when working in lesser quarters of the globe," reads its preface.⁶⁵

Traditionally, hydrographers commence their work with the establishment of a base-line ashore. A prominent site, such as the top of a hill, would be selected and beacon erected so that it would be visible from all angles. Using a theodolite, a device that measured vertical and horizontal angles, the officer would fix the exact location of the beacon from the sun or

stars. Another beacon would be established on a prominent point some distance away, connecting the base line and from this the hydrographer could establish True North, and the chart could be constructed around these known points.⁶⁶

The distance between the two beacons would be measured with steel tape if it was on flat ground or by trigonometric calculations. This first angle would enable triangulation along the shoreline. As Mary Blewitt explains;

Accurate surveys are based on rigid land triangulation, that is to say that the coast and coast line are precisely mapped so that the sea bed can be charted and the details positioned accurately in relation to the land. The fundamental idea of triangulation is that, knowing the angles of a triangle and the length of one side, the lengths of the other two sides can be calculated. Two points, A and B, are selected and the distance between them measured. This is the base line. A third point, C, visible from both A and B is then chosen and the angles of the triangle ABC measured with a theodolite. When the length of AC and BC have been calculated the three points can be plotted so that they can be correctly related to each other. This original triangle is extended by others until the area to be surveyed is covered by a frame work to which subsidiary data, such as the position of conspicuous features, are added.⁷²

Using beacons as a reference point, the officer would fix the position of each sounding with a sextant by measuring the angles between it and the sun at noon or the North Star at night. "This angle, when compared with tables of the sun's deviation from its apparent path around the Earth's equator, gives the navigator/hydrographer a relatively accurate determination of his latitude."⁶⁷ Longitude could be obtained from use of an accurate chronometer, since if one knew the exact time at the Prime Meridian it was a simple matter to determine ones' position east or west of it.⁷¹

In addition to the chronometer, a number of navigational and surveying instruments were necessary for the hydrographer's task. The most important of these was the marine sextant, which by focusing on a real or "artificial" horizon, determined the sun's meridional altitude and thus the latitude of a specific position.⁶⁸ Aboard ship, the sextant was used with the Sun

to obtain a true bearing between the moored marks ashore, although with less accuracy. In the survey boats the sextant was used horizontally in conjunction with station pointers.⁶⁹ When ashore, surveyors used the theodolite and "landing compass" for the same purposes, but with a higher standard of accuracy.⁷⁰

According to Beaufort's 1831 surveying instructions, the hydrographer's first priority in charting was to sketch out the contour of the water body and to show its islands, shoals and soundings.⁷³ Second priority was to examine channel entrances, and to mark the safe water level. Thirdly, the elevations of hills, points or mountains had to be trigonometrically determined to give mariners a means of determining their distance from shore. The nature of the shore had to be described, whether it was "high cliff, low rock, or flat beach," its height, and its composition whether sand, gravel or stone.⁷⁴ Points ashore were plotted with measuring chains and theodolites, and the distance of visible rocks and other sea marks were measured by timing the difference between the audible sound and appearance of smoke in gunfire.⁷⁵ Finally, by using poles to mark the rise and fall of the tide, a "Chart Datum" was established below the lowest point normally reached by the tide.

The Royal Navy was in a state of technological flux as it switched from sail to steam power in the mid-nineteenth century. Steam power was one of the greatest technological advances in the history of hydrography, as it gave invaluable advantages of manoeuvrability to ships operating in such complicated waters as the Northwest coast. "For the first time surveyors could run ship sounding lines in the direction they deemed best in the systematic manner," observed Ritchie; "they could work in calm as well as windy weather; and they could leave or return to harbour as they

wished."⁷⁶

At first, there was considerable opposition to steam among senior naval officers. As Viscount Melville once argued, "Their Lordships feel it their bounden duty to discourage... the employment of Steam vessels, as they consider that Steam is calculated to strike a fatal blow to the naval supremacy of the Empire."⁷⁷ Since Britain ruled the waves on the strength of sailing ships, it was not in the national interest to encourage an innovation which might render the entire battle fleet obsolete.⁷⁸

Thus, advances in the science of steam power were left to the commercial world and technological change in the Royal Navy remained relatively slow until the 1860's.⁷⁹ The first recognition of the new technological reality came with the appointment of the first Comptroller of Steam Machinery in 1837. Shortly afterward, the rank of Engineer Warrant Officer appeared for the first time though, significantly, it ranked below Ship's Carpenter.⁸⁰ By 1841, Admiralty policy towards steam power had changed and Naval officers were henceforth directed to "acquire a thorough knowledge of steam machinery."⁸¹ By 1847, Engineering officers were given uniforms and commissions and in 1854 their names appeared in the Navy List.⁸²

In 1837, Lieutenant James Hosken was seconded to the paddle wheel steamer Great Western as Master so that he might report on its performance in crossing the Atlantic Ocean. The Admiralty knew that switching to steam would be an extremely expensive and complicated process, and thus resolved to tread cautiously on the matter. It would require the acquisition of coaling stations all over the world, and the retraining of an entire generation of officers and seamen. Such huge expenditures were difficult to justify in peacetime and during a period of fiscal restraint, and particularly when the British fleet was still the largest and most powerful

in the world.

Resistance to change was not entirely limited to steam, similar opposition was voiced against ironclads. In 1850, Sir Francis Baring, First Lord of the Admiralty, argued that "the Admiralty opposes the building of ironclads, because iron is heavier than wood, and will sink."⁸³ By 1860, opposition to the construction of ironclads disappeared when HMS Warrior was built to counter the threat posed by the French ironclad La Gloire. But even at that late date, the Admiralty still saw fit to request a vote of £1,000,000 from Parliament to restock dockyard timber sheds.⁸⁴ The last wooden ships-of-the-line were built in 1861. The Battle of Hampton Roads in 1862, where the Union ironclad Monitor defeated the Confederate Merrimac, sounded the death-knell of the existing sailing fleet. The ships that Nelson trod were completely obsolete in terms of modern warfare by 1865.

The arguments against steam power held that paddle wheels interfered with gunnery arcs of fire and that the engines lacked sufficient horsepower, used too much fuel, and broke down constantly.⁸⁵ Captains objected that coal was expensive, filthy, and limited in its supply. As a result, the Admiralty ordered that steam be used only when entering or leaving harbour.⁸⁶

Even when Steam vessels became common in the Royal Navy, they were still constructed fully rigged to conserve fuel. As Admiral Penrose Fitzgerald explained, "The engines might break down, and then where would you be ?"⁸⁷ However, this posed a stability danger for ironclads. The rigging of HMS Captain raised its freeboard substantially and naval architects voiced reservations about its seaworthiness. In 1870, the Lords of the Admiralty ignored the warnings and ordered the top-heavy vessel to sea trials in the Bay of Biscay. With sails unfurled in a heavy gale, Captain

caught a gust of wind and capsized, drowning nearly 500 sailors, the Captain, and its designer, in the process.⁸⁸ The tragic outcome and resultant public outcry forced the Admiralty to rethink its policy of blending eighteenth century technology with the nineteenth.

HMS Cormorant, a paddle-wheel gunboat with six 32-pound guns, was the first steam vessel to navigate the Northwest Coast. In 1846 it proceeded from Fort Victoria to Seymour Narrows in a fraction of the time that it would have taken a sailing sloop.⁸⁹ It was soon joined by other steam-powered sailing vessels of the same class, the Driver, Virago, and Devastation, all of which "proved effective gunboats in inshore waters."⁹⁰ However, most vessels on the Northwest Coast, such as Daedalus, Daphne, and Trincomalee, were wind powered and often had to rely on HBC steamers Beaver and Otter for a tow when plying the intricate Inland Passage. Steam-powered gunboats Forward and the Grappler followed in 1858 to combat the Indian threat and American aggrandizement.⁹¹ Built for speed and manoeuvrability, they represented the apogee of steam technology of their day, running to a speed of 7½ knots, but were also built fully rigged to economize fuel.

HMS Plumper was constructed at Portsmouth in 1847. It was classed as an "Wooden auxiliary screw sloop," but since the screw was then in an experimental stage it had no "sisters."⁹² By 1857, Plumper was barque-rigged for sail, 140 feet in length overall with a draught of 12 feet plus loaded. It displaced 679 tons. Plumper was armed with eleven guns, ten "32 pounder" carronades and one "32 pounder" pivot gun and carried 100 officers and men.

HMS Hecate was a Paddle-wheel Steam sloop, Second Class, built in 1839 and obsolete after 1850 due to the advances made in screw propulsion.

Hecate's original draught was 15 feet plus loaded, length overall was 150 feet, and it displaced 716 tons. In 1842, Hecate was lengthened by twenty feet and her tonnage increased to 830 tons.⁹³ The vessel was equipped with two ten-inch pivot guns, four "32 pounder" carronnades, and two "12 pounder" and two "24 pounder" howitzers. It was propelled by "sway beam" engines, composed of two 60 inch cylinders at 240 horsepower, with a maximum speed of ten knots and a normal cruising speed of seven knots. As a surveying ship, it carried 92 officers and seamen, 13 boys and 20 Marines, a total complement of 125. The vessel underwent extensive modifications prior to proceeding to the Pacific Station.⁹⁴

HMS Satellite was an Auxiliary Screw Corvette built in 1854. It was "ship-rigged", with a loaded draught of 20 feet, 200 feet in length overall, and displaced 2187 tons.⁹⁵ It carried 20 eight inch guns on broadside and one "68 pounder" revolving slide chase gun at the time of its service on the Pacific Station. It was a ship-of-the-line and was never intended for use as a survey ship.

NOTES

1. Barry M. Gough. The Royal Navy and the Northwest Coast of North America. (Vancouver; University of British Columbia Press, 1971), p. 30.
2. ibid., p. 244.
3. Paul Kennedy. The Rise and Fall of British Naval Mastery. (London; Allen Lane, 1976), p. 180.
4. ibid., p. 164.
5. idem.
6. Kennedy. op. cit., pp. 163-164.
7. Christopher Lloyd. The Nation and the Navy. (London; The Cresset Press, 1954), p. 225.
8. idem.
9. Kennedy. op. cit., pp. 163-164.
10. Kennedy. op. cit., p. 180.
11. Antony Preston and John Major. Send a Gunboat ! A Study of the Gunboat and its Rôle in British Policy, 1854-1904. (London: Longmans, Green and Co., 1967), p. 34.
12. ibid., p. 7.
13. ibid., p. 34.
14. James L. Stokesbury. Navy and Empire. (New York; Wm. Morrow & Co., 1983), p. 225.
15. Gough. The Royal Navy. op. cit., p. 42.
16. ibid., p. 43.
17. idem.
18. ibid., p. 47.
19. ibid., pp. 48-49. For a definitive account of the British policy of "informal" and "formal" imperial economic control see Gallagher and Robinson, "The Imperialism of Free Trade," Economic History Review, 2nd ser., Vol. VI (1953).
20. ibid., p. 76.
21. ibid., pp. 88-89.
22. ibid., pp. 90-91.
23. Barry M. Gough. Gunboat Frontier: British Maritime Authority and the Northwest Coast Indians, 1846 - 90. (Vancouver; University of British Columbia Press, 1984), p. 46.
24. ibid., p. pp. 47-48.
25. idem.
26. idem.
27. Gough. The Royal Navy. op. cit., p. 130.
28. Preston and Major. op. cit., p. 83.
29. idem.
30. idem.
31. ibid., p. 82. Relations with the United States improved substantially after the cessation of the Fenian Raids and the British government sought to reduce its forces in Canada as much as possible, leaving only the standing garrisons at Halifax and Esquimalt. British troops in British North America were accordingly reduced from 16,000 to 6,000. After British Columbia entered Confederation in 1871, its defence became a Dominion rather than an Imperial responsibility. However, the threat once posed by the United States by then had largely disappeared. Relations between Britain and the United States had been largely pacified by the settlement of the Alabama claims issue, in which the British government reimbursed parties who had lost property as a result of the depredations of the Confederate raider.

32. Gardiner. op. cit., p. 219.
33. ibid., p. 220.
34. Dorothy Blakey Smith, "The Journal of Arthur Thomas Bushby, 1858-1859," British Columbia Historical Quarterly, Vol. 21, Nos. 1-4 (January to October, 1957), p. 192.
35. Dorothy Blakey Smith. Lady Franklin Visits the Pacific Northwest: Extracts from the Letters of Sophia Cracroft, February to April 1861 and April to July 1870. (Victoria, BC; Provincial Archives of British Columbia Memoir No. XI, 1974), pp. 2-3.
36. idem.
37. Parizeau, "Hydrographic Survey of the Northwest Coast of British North America," op. cit., p. 17.
38. Brock. Ship's Dossiers. HMS Satellite pamphlet.
39. Brock. Ship's Dossiers. HMS Hecate pamphlet.
40. See Hankin. loc. cit.
41. Walbran. op. cit., p. 309.
42. Brock. loc. cit. HMS Hecate pamphlet. Smith, "Bushby Papers," op. cit., pp. 197-198.
43. Gardiner. op. cit., pp. 270-271. See also Christopher Lloyd. The British Seaman 1200-1860; A Social Survey. (London; Collins, 1968), p. 274.
44. Gardiner. op. cit., p. 273.
45. Lloyd. The Nation and the Navy. op. cit., p. 207.
46. "The Papers of E.P. Bedwell," BCARS. Edward P. Bedwell to Harry Bedwell, April 16, 1858.
47. Padfield. op. cit., p. 54.
48. idem.
49. ibid., pp. 62-63.
50. idem.
51. ibid., p. 64.
52. ibid., pp. 62-63.
53. ibid., p. 66.
54. John Washington, "Hydrographic Instructions to Capt. G.H. Richards, H.M.S. Plumper, 1856," BCARS. The Dolphin survey had utilised a new method of deep water sounding, using a steam engine to recover a lead line which automatically released its weight on striking the ocean floor. This pioneering effort in oceanography coincided with a pressing need for such knowledge when Great Britain and the United States entered negotiations for the laying of Atlantic telegraph cable. The first attempt at laying the cable in August 1857 had been unsuccessful, the ends having been lost in mid ocean. The route between Ireland and Newfoundland had been surveyed by HMS Cyclops in 1856. The cable was finally laid in 1858 by HMS Agamemnon and USS Niagara. Unfortunately, the cable insulation failed after only a few months of use due to the effects of deep ocean salinity, clearly highlighting the need for more deep-water surveys and hydrological research. The study of oceanography was thus elevated from academia to an issue of crucial international importance in telecommunications. In 1871, at the behest of the Royal Society, Richards, then Admiralty Hydrographer, fulfilled a lifelong dream by sponsoring the pioneering oceanographic expedition of HMS Challenger which brought back much valuable information on the the nature of the sea and the effect it had on such scientific endeavours as laying of the Atlantic cable. See also Ritchie. "Great Britain's Contribution," op. cit., p. 9. and Sir William Laird Clowes. The Royal Navy: A History From the the Earliest Times to the Death of Queen Victoria.

- (London; Sampson Low, Marsden & Co., 1903), Vol. VII, p. 150.
55. Hydrographic Instructions, loc. cit.
 56. idem.
 57. idem.
 58. idem.
 59. idem.; Bedwell Papers. loc. cit. Bedwell to Harry Bedwell, April 16, 1858.
 60. "In a climate like this it is... a healthy occupation being out in the fresh air all day walking or else afloat," wrote Bedwell; "In the winter it is not so pleasant as one is always in doors working up charts... day after day for five months without change, one is heartily glad or summer to return." Bedwell Papers. loc. cit. Bedwell to Harry Bedwell, April 16, 1859.
 61. Henry Baynham. Before the Mast: Naval Ratings of the Nineteenth Century. (London; Hutchinson & Co., 1971), p. 83.
 62. Peter Padfield. Rule Britannia: The Victorian and Edwardian Navy. (London; Routledge & Kegan Paul, 1981), p. 126.
 63. Bedwell Papers. loc. cit., Bedwell to Harry Bedwell, April 16, 1858.
 64. Ritchie. op. cit., p. 198.
 65. Ritchie. idem.
 66. Filmore and Sandilands. op. cit., p. 80-81.
 67. ibid., p. 78.
 68. Ritchie, "Great Britain's Contribution to Hydrography," op. cit., p. 8-9. In his work, "A Treatise on Nautical Surveying," Sir Edward Belcher argued that the sextant had replaced the Azimuth Compass, which was then used only by Sailing Masters.
 69. idem.
 70. idem.
 71. Filmore and Sandilands. op. cit., p. 78.
 72. Mary Blewitt. Surveys of the Sea. (London; McGibbon & Kee, 1957). Quoted in ibid., p. 81.
 73. ibid., p. 116.
 74. idem.
 75. Padfield. ibid., p. 126.
 76. George S. Ritchie, "Great Britain's Contribution to Hydrography," op. cit., p. 7-8.
 77. Leslie Gardiner. The British Admiralty. (London; Wm. Blackwood & Sons, 1968), p. 251.
 78. Lloyd. op. cit., p. 214. Neither were the early steam vessels reliable to go to sea or to serve as warships until technology perfected them.
 79. N.A.M. Rodgers. The Admiralty. (Lavenham, Suffolk; Terence Dalton, 1979), p. 102.
 80. Christopher Lloyd. The Nation and the Navy: A History of Naval Life and Policy. (London; The Cresset Press, 1954), p. 206.
 81. idem. However, it was not until 1880 that the Royal Navy would establish its first steam college at Keyham.
 82. ibid., p. 207.
 83. Gardiner. op. cit., p. 252.
 84. Lloyd. op. cit., p. 217. The last wooden men-of-war were HM Ships Defence and Collingwood. See also Stanley Bonnett. The Price of Admiralty: An Indictment of the Royal Navy 1805 - 1966. (London; Robert Hale, 1968), p.106.
 85. Stokesbury. op. cit., p. 224.
 86. It was rumoured that promotions for Captains hinged on their ability

to make one bunkering of coal last for an entire commission of three to four years.

87. Gardiner. op. cit., p. 254.

88. Henry Baynham. Before the Mast: Naval Ratings of the Nineteenth Century. (London; Hutchinson & Co., 1971), p. 109.

89. Gough. Gunboat Frontier. op. cit., p. 12.

90. idem.

91. idem.

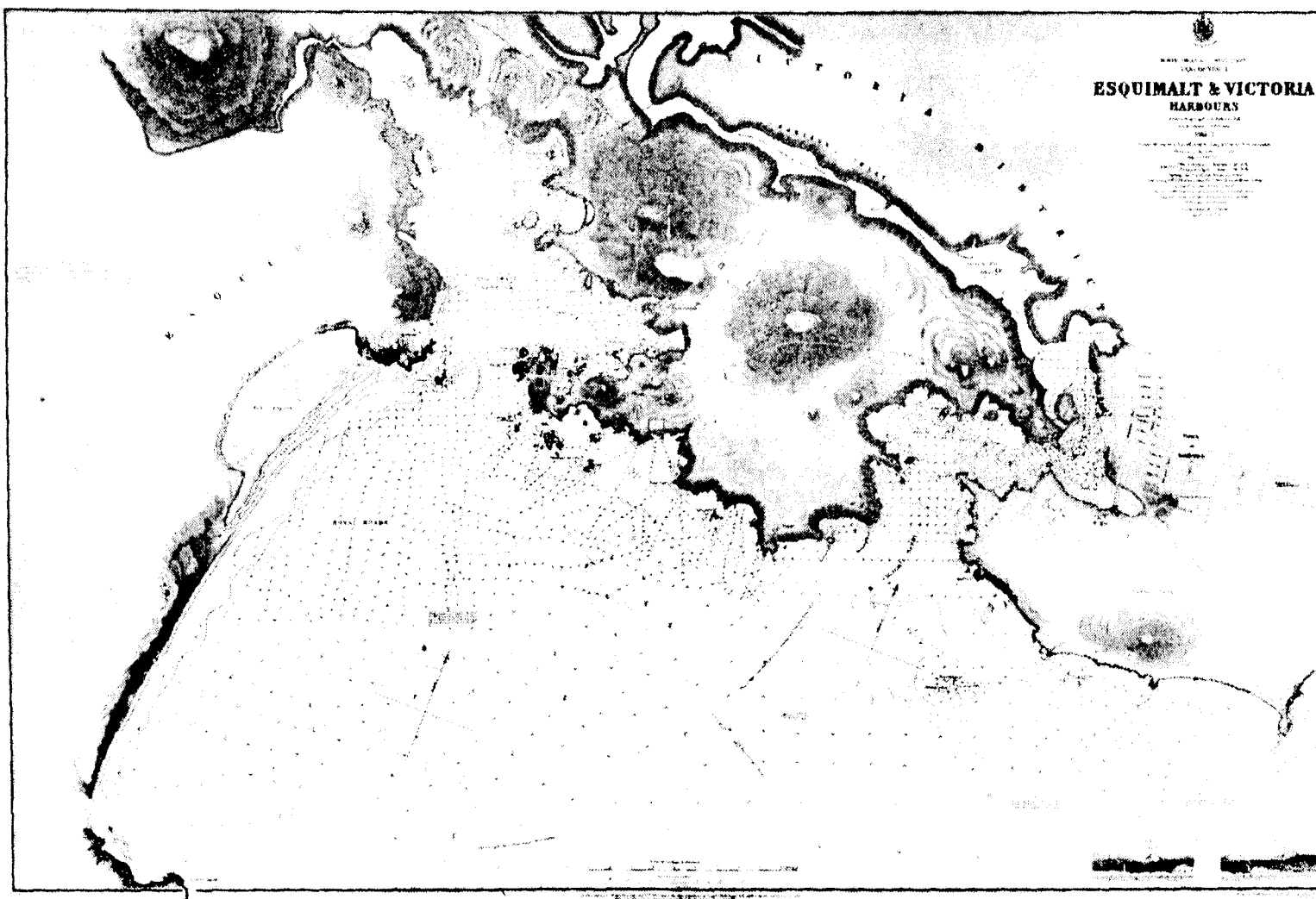
92. Brock. loc. cit. HMS Plumper pamphlet.

93. Brock. loc. cit. HMS Hecate pamphlet.

94. idem.

95. Brock. loc. cit. HMS Satellite pamphlet.

CHAPTER TWO: SURVEYS ON LAND AND SEA



G.H. Richards. *Esquimalt & Victoria Harbours 1851 - 2*. London: Admiralty, 1864, corrected to 1868. Chart 576. (National Archives of Canada, NMC 106383.)

The shoreline of British Columbia, with bays and inlets included, runs to 4,450 miles. Hundreds of islands lie off this deeply indented coast in the "savage maze of rock and water" known as the Inland Passage. Here the mariner faced "great and perplexing tidal irregularities" as well as rocks, shoals, sandbanks, and currents.¹ Elsewhere, eddies and tidal rips existed which could carry sailing vessels helplessly to destruction. The magnitude of the task facing Richards and the surveyors was enormous, and could only be accomplished at great risk to life and limb, and at great expense in time and money. It was estimated that the survey of the Northwest coast would take from seven to ten years to complete.

Douglas wrote to the Colonial Secretary, Henry Labouchere on April 16, 1857, to acknowledge the appointment of Richards and Prevost to the newly formed British Boundary Commission and to pledge "every assistance in my power to Her Majesty's Commissioners."² HMS Satellite arrived with the advance party in Esquimalt Harbour on June 14.³ HMS Plumper was to follow as soon as its refit in Portsmouth was complete. The US Boundary Commissioner, Archibald Campbell, arrived with his entourage on June 22 aboard the paddle steamer Active.

The US Commission was well equipped for the tasks ahead, being composed of "a large and efficient staff of scientific officers and a military escort consisting of a full company of the 9th Regiment of Infantry."⁴ Campbell was accompanied by Lieutenant John Parke of the US Army Topographical Engineers, the US Commission's Chief Surveyor and Astronomer for the land boundary.⁵ Captain Prevost met with Campbell on June 27 to discuss the preliminary details concerning the boundary survey. The first meeting concluded "to the satisfaction of both gentlemen," noted Douglas; "They are pleased with each other and disposed to negotiate in a spirit of mutual

kindness and accommodation."⁶

The first decision tabled at the Commissioners' meeting was to "establish in the first place before entering on any other business the initial points in the Gulf of Georgia and at the spot where the 49th Parallel of latitude meets the sea coast, between Point Roberts and Birch Bay."⁷

Douglas intended to personally accompany the Commissioners on their official visit to Olympia, but was unable due to pressing government business concerning the Gold Rush and the influx of American prospectors into the colony.⁸ The Gold Rush, in particular, added a sense of urgency to the British Commissioners in reaching a swift conclusion to the border question.

As Douglas noted:

It is highly important to all parties engaged in the business of this country, that the boundary line be contemplated by the United States government should be marked upon the ground as far as the Rocky Mountains without delay, as uncertainty in regard to the sovereignty of desirable business localities, will retard the course of improvement, and may also lead to serious contests for possession of such places, especially in the gold districts, between Her Majesty's Subjects and the citizens of the United States.

The Commissioners exchanged copies of their respective instructions. While Campbell gave his entire instructions, Prevost only submitted an extract of Lord Clarendon's directives to the British Commission. The British contention that Rosario was the only navigable channel and that Haro Strait did not fulfill the requirements of the 1846 treaty were omitted, as were Douglas' case for the British Possession of the San Juan Archipelago and the Foreign Office's direction that a compromise channel may be accepted if a navigable one was found.¹⁰ "This duplicity did not augur well for the success of the Water Boundary Commission," noted McCabe. "It is obvious that Prevost was not being allowed to have a free hand determining the line of demarcation, and that was a definite obstacle to free discussion and decision."¹¹

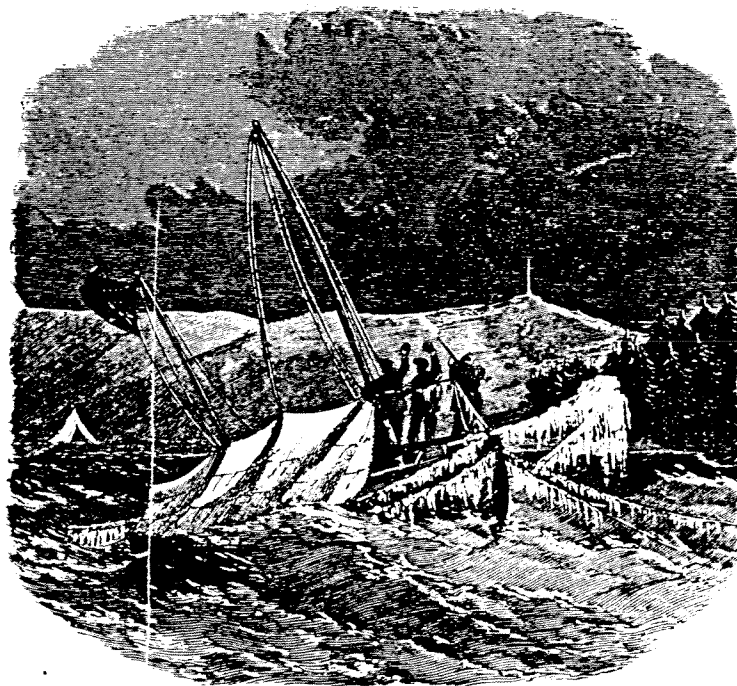
The Commissioners proposed to proceed immediately to determine the land border at the forty-ninth parallel. This posed considerable difficulties for Prevost, as HMS Plumper, the principal surveying vessel, had not yet arrived at Vancouver Island. On June 29, Prevost reported the predicament to the Admiralty and advised that commencement of the survey without Plumper would be unwise.¹² Instead, he proposed to await Plumper's arrival at Nisquilly in Washington Territory. "I deemed it unnecessary as well as inexpedient to delay longer for the arrival of Plumper before commencing proceedings in the determination of the line," wrote Prevost; "I therefore proceeded on the 20th to Semiahmoo Bay, Gulf of Georgia, near to the 49th parallel where the camp of the United States Commission is established."¹³ Plumper finally arrived on November 20, 1857, too late in the year "to sufficiently verify the United States Coast Survey Chart of 1854."¹⁴ Instead, it was dispatched to Point Roberts to assist in the determination of the land border.

Prevost returned to Esquimalt on November 6, and set out again for Semiahmoo Bay on November 18, and returned again to Esquimalt for winter quarters on December 4. During that time, Prevost had been meeting and corresponding regularly with Campbell, but was unable to reach a consensus on the water boundary question.

Personally and Privately, I have been on the most intimate terms of friendship with the United States Commissioner and our intercourse has been of the most pleasant and harmonious description, but I regret to say that his correspondence bears strong evidence of an unconciliatory disposition.¹⁵

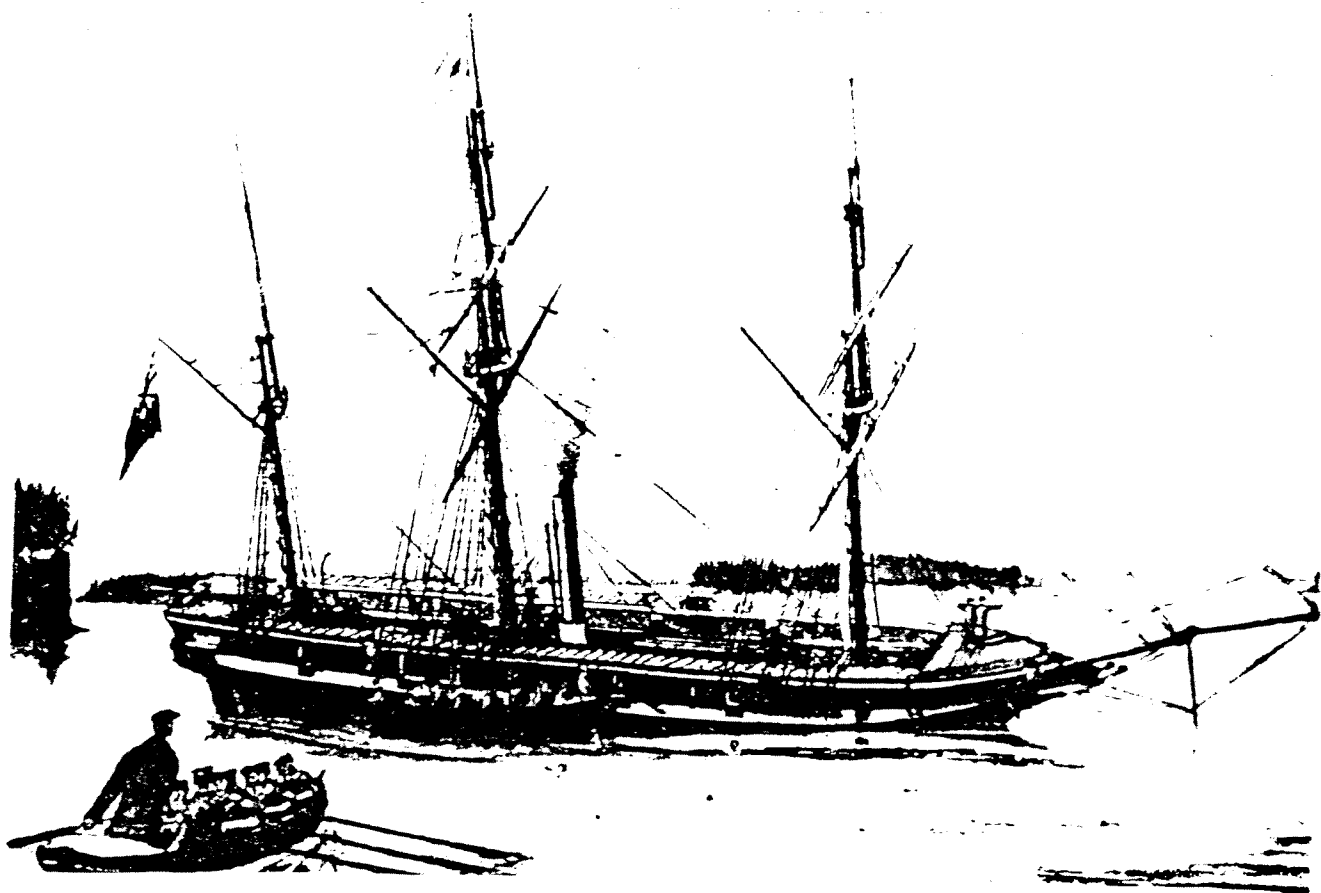
While expressing regret at his inability to bring the matter to an amicable conclusion, Prevost accordingly requested that it be referred to the Foreign Secretary, Lord Clarendon.

HMS Plumper commenced its surveying duties by determining the exact



VANCOUVER ISLAND SURVEY DETACHED SERVICE - GRIFFIN BAY - ST. JUAN ISLE

Mayne. Four Years in Vancouver Island and British Columbia. p. 36



HMS Plumper ashore of Discovery Island, near Victoria, in 1859. From a painting by E.P. Bedwell.

spot where the forty-ninth parallel met the sea to confirm the findings of the US Boundary Commission. When this task was completed, Richards surveyed the Haro Archipelago until operations were concluded for the year. While proceeding to Semiahmoo Bay to join the US Commission and Satellite, Plumper ran aground on Discovery Island and had to be beached for repairs at Nanaimo. Thereafter, Plumper remained at Semiahmoo Bay until December 16, where surveyors marked the boundary line. Richards found that it differed from the US Commission by only eight feet.¹⁶ Once the line was established, Plumper returned to Esquimalt to await the good weather of the next surveying season.

On February 10, 1858, hydrographic operations were commenced for the year. A survey party was landed at Griffin Bay to survey the inner channels of the San Juan archipelago. However, inclement weather temporarily halted the activities of the detached party until mid-March. "Out of the seventeen days we spent there only six could be called fine," recalled Mayne; "and at best the cold was so severe and the fogs so frequent as to render boat-work extremely dangerous, particularly in channels so full of tide rips and overfalls."¹⁷ Plumper's pinnace, the "Shark", was the cause of particular distress to the survey party, having nearly been lost at sea twice while others watched helplessly from the island.¹⁸

On March 16, 1858, the surveying party set out again for San Juan. and immediately set to work on the survey of the disputed channels and islands. The surveyors were occupied in the Haro Strait region throughout 1858, and in parts of the Strait of Georgia. Once completed, the charts were prepared at the Boundary Commission Barracks for transmission to England.

Richards' report on the survey of the San Juan archipelago was dispatched to the Hydrographic Office on November 30, 1858, and reached

the hands of the Colonial and Foreign Offices by the end of January, 1859. The Foreign Secretary, Lord Clarendon, viewed the report with alarm, since it appeared to "establish the American claim that the Canal de Haro was the best navigable channel."¹⁹ The report concluded that Haro Strait, being two and a half miles at its northern entrance, was wider and deeper than either Rosario or Douglas Straits, and therefore the safest and most appropriate for marine navigation. The eastern channel, Rosario Strait, possessed strong tides and two large dangers to navigation and only varied in depth from twenty-five to thirty-five fathoms. The centre channel, called "Douglas" by some, had strong tides at its southern entrance and was too narrow to be viable for sailing ships, though it was safe enough for steamships. In general, all three channels posed various difficulties for sailing vessels, but all were safe for steamships by day, and could be lit at night.²⁰

Richards emphasised three main points in his survey report. First, that all those vessels bound for the Fraser River or Nanaimo would save twelve to fifteen miles by taking the route through Haro Strait. Second, that British ships bound for British ports used Haro Strait instead of Rosario for the same reason. And third, the growing importance of Nanaimo as a coal port would increase the use of Haro Strait as the colony developed economically. However, Richards granted that "Douglas" Channel was navigable by steamships and thus gave the British a tenuous bargaining chip for compromise in Anglo-American negotiations.²¹

The British case for San Juan would be substantially revised in the wake of Richards' Report. With Rosario Strait dispensed with as a viable alternative, the British priority became the acquisition of San Juan Island through the proposed compromise settlement.²² San Juan Island

was the only one in the Archipelago of any economic or strategic importance; as Mayne explained, "San Juan can be of no use to any country but Great Britain, except for offensive purposes; and, on the other hand, it cannot be of any use to her but for defensive purposes, as its eastern shore in no way controls or affects the Rosario Strait..."²³ James McCabe surmised that the British government could not publicly admit that their claim to Rosario Strait was difficult to substantiate, and that the strategy for negotiations therefore became the acquisition of the Middle Channel. San Juan Island would thus fall to the British, the government would save face, and at the same time "strike a blow for the safety of Vancouver Island."²⁴

Furthermore, Prevost emphasised the strategic importance of San Juan Island for the defence of Vancouver Island. The control of both sides of the Haro Strait would create a vital choke point to prevent American expansion to the North. Possession of the island was vital to the security of Esquimalt harbour, and to the preservation of the sea lines of communication between Vancouver Island and mainland British Columbia.²⁵ Prevost believed that Vancouver Island was of greater potential value than the Oregon territory recently surrendered to the United States. He told the Foreign Secretary that the loss of San Juan Island "might some day prove fatal to Her Majesty's Possessions in this quarter of the globe."²⁶

Once duties with the Boundary Commission were completed and Prevost had no further need of HMS Plumper, Richards' instructions directed him to survey the Gulf of Georgia and Vancouver Island.²⁷ However, the workload of the Boundary Commission was soon replaced by numerous requests from the colonial government for surveys, professional opinions, police actions and other civil services.

In October 1858, Governor Douglas requested that Richards submit

a general report on the harbours of Vancouver Island and "the mouth of the Fraser River, as the site of the entry into British Columbia... in order that Her Majesty's Government may be guided to the best and readiest means of developing the resources of these colonies."²⁸ Richards forwarded a hastily prepared but highly prescient report which predicted the future centres of colonial economic development. In particular, he believed that the natural capabilities of Fraser River rendered New Westminster "the most favourable spot that could be chosen as the future capital of British Columbia," and that the river had great potential for commercial use.²⁹ Measures would have to be taken to ensure safe navigation at the river entrance, such as the stationing of a lightship off Sand Head, and shoals would have to be removed to render the river navigable to Fort Langley.

Further more, Richards believed that the rapid and increasing settlement of the colonies rendered increased coastal exploration a necessity. "Of the several inlets and sounds which indent the western coast of the island, but little is yet known," noted Richards; "since the time of Vancouver, they have been rarely visited except by sealers and small vessels who trade with the natives for oil and fish."³⁰ The Admiralty had directed Richards to seek as much local information as possible and to convey tracings of any surveys to the Hydrographic Office and Lloyds of London "for the benefit of sailors in general."³¹ However, the coastal traders had vested interests in their areas of operation and were "unwilling that their preserves should be more frequently disturbed."³² "Of the knowledge which these men have gained I have rarely found them willing to communicate," remarked Richards.³³ Nor were local mariners always an accurate source of information even when they were willing to impart it. Master John Gowlland recalled that it was always "the quickest and safer

plan to find it out for ourselves."

At Douglas' request, Richards proposed sites for lighthouses in the Strait of Juan de Fuca. Race Rocks, with its strong tides and dangerous races, was deemed a significant navigational hazard and thus desirable for illumination.

In the Strait of Fuca, the tides are very regular... if a vessel bound for Esquimalt or Victoria overrun her distance, after losing sight of Cape Flattery light, the flood tide after passing Race Rocks would set her far eastward of her port and among the archipelago, which would involve risk and delay; if the ebb were running, and a ship should not know the exact position of the rocks, she would be extremely likely to be driven onto to them.³⁴

The potential cost in human life justified the expense entailed in lighting Race Rocks. "To the Emigrant ship, coming from Australia and other parts of the world," noted Richards; "probably unprovided with charts of this coast, and freighters, perhaps with hundreds of human beings, an error in position would probably be attended with fatal consequences."³⁵ To date, there had been no serious marine accident on the Northwest Coast that had caused significant loss of life, but immigration was likely to soon increase and many passenger-carrying vessels would be plying the hazardous route to the two principal British entrepôts, Victoria and Esquimalt.

Richards recommended the establishment of a lighthouse on Fisgard Island at the entrance to Esquimalt Harbour. This was to compensate for the fact that the channel entrance was usually obscured by the rising land behind. In addition, there was the port turnover time to be considered; vessels arriving at night would no longer be obliged to anchor at Royal Roads until the following morning. This had been the cause of significant financial loss to the colony since many vessels simply passed by Esquimalt and carried on southwards to American ports. Richards further recommended

that Esquimalt be made the principal port of entry for both Vancouver Island and British Columbia.³⁶ In November 1859, Rear-Admiral Baynes would recommend Esquimalt to the Admiralty as the harbour best suited for the establishment of a permanent Naval Yard.³⁷

Richards' report concluded with routine nautical matters undertaken at the request of the colonial government. He made recommendations to the Colonial Surveyor, James Pemberton, on the construction of private piers in the harbour.³⁸ The colonial government proposed to establish a board for the examination of harbour pilots and Richards consented to provide officers to assist. In June 1860, Daniel Pender, Plumper's Master, would be assigned the responsibility of examining Harbour Pilots.³⁹ Finally, Richards advised the colonial authorities on navigational measures to be adopted for the survey of Victoria harbour, and agreed to postpone the Fraser River survey to survey Victoria immediately.⁴⁰

Lieutenant Mayne did not think much of the capability of Victoria as a harbour and compared it unfavourably with Esquimalt: "It is highly problematical whether it can ever be made a safe and convenient port for vessels of even moderate tonnage... The entrance is narrow, shoal, and intricate." "Under the most favourable circumstances ships are constantly running aground... I cannot even imagine any sensible master of an ocean ship endeavouring to wriggle his vessel into Victoria with the larger and safer harbour of Esquimalt handy."⁴¹

During the survey of Victoria harbour, Richards reported that American vessels were anchoring in the fairway channel and thus causing a significant danger to shipping. The fairway was "so narrow that another vessel must either come into a collision with the vessel so anchored, or must run on shore."⁴² On March 31, HMS Plumper was entering harbour when it

encountered the Francis Holm of San Francisco anchored between Shoal and Laurel Points. Richards was forced to go into full reverse to avoid a collision. An officer hailed the master of the vessel but was ignored. "Upon this I hailed him myself," Richards later recounted; "asked him why he had not his colours flying, and told him that if he was there on another occasion, I would run into him."⁴³ Richards was so enraged by the disrespectful conduct of the master that he reported the incident to the governor and requested that this practice be strictly forbidden in the future, and that all vessels entering Victoria henceforth be required to take on a harbour pilot.

The survey of Victoria Harbour concluded on April 13, 1859. Richards sent a tracing to the governor for his inspection, and made a number of recommendations for future harbour development. Under normal tidal conditions, the harbour would be unable to accommodate vessels with a draught of over twelve feet. Richards recommended the removal of certain shoals to make the harbour more accessible, Beaver Rock and, more importantly, Harbour Rock, a dangerous pinnacle that had only four feet of clearance at low tide. If the colony demurred at the expense then a bouy would suffice for Beaver Rock, as well as the shoal at Brothie Ledge. In addition, iron fairway bouys would be needed to mark the centre of the channel, and the Victoria bridge would need to be removed to increase manoeuvring area within the harbour, and pilots would need to be made mandatory for all incoming vessels.⁴⁴ Richards concluded that if "Rules of the Road" and proper navigational aids were adopted then "the almost daily grounding of vessels which now occurs might be totally prevented."⁴⁵

Richards' report was laid before the colonial assembly on April 28, 1859. Douglas recommended that the proposals be adopted and the harbour

bouyed at the expense of £400. The assemblymen agreed on the necessity of the harbour improvements, but had no funds with which to pay for them. Instead, Douglas authorized the expenditure of £250 from his own budget to ensure that the recommendations were adopted.⁴⁶

In May 1859, Richards was solicited for his professional opinion on the suitability of the vessel Recovery for use as a lightship at Sand Head, Fraser River. Despite its reasonable price of £750, Richards considered that its large size and the resultant cost for mooring and upkeep rendered it too costly for this purpose. The mooring would have to be elaborate and permanently maintained in order to prevent the vessel from being blown ashore. "A small Chinese junk would do well enough," wrote Richards, since the vessel would serve more as "a mark than... a light" to enable vessels to pass safely into the river by day and by night, and only required crew accommodation space.⁴⁷

Once the survey of Victoria Harbour was complete, Plumper steamed to the Fraser River to meet HMS Satellite and disembark Marines and Engineers at New Westminster. While at Esquimalt, the governor had requested that a running survey be made of the Fraser River and a report submitted on those areas occupied by gold-miners. Lieutenant Mayne was ordered to undertake this task with the assistance of Dr. Campbell, Plumper's assistant-surgeon. The survey was a difficult task as it would take the party through the dangerous canyons between Lytton and Yale, a route described by Matthew Baillie Begbie as "utterly impassable for any animal except a man, a goat or a dog, and so terrible that experienced travellers shrank from undertaking it."⁴⁸ Douglas directed that Mayne ascend the river as far as Cayoosh (Lilloet), and was to return by way of the Harrison and Lilloet trail, and report on the land that was passed.⁴⁹

The importance of this survey cannot be overstated, since the importance of proving the navigability of the river for ocean-going shipping was crucial to the prosperity of the colonies. The river had a number of natural advantages over its American counterpart, the Columbia. The Columbia was unsheltered and open to the full force of the Pacific Ocean, therefore, any vessel plying its hazardous shallow entrance was very likely to be lost if grounded. By contrast, the Fraser River was entirely sheltered from the sea by Vancouver Island, and its shallow but sandy entrance meant only a few hours inconvenience for mariners who ran aground since they had only to wait for high tide to float them off safely.⁵⁰

The most common cause of groundings in the Fraser was the shifting of bouys from their appointed place, and of sand at the river mouth. The problem had been "most detrimental to the interests of British Columbia," since ship underwriters were charging as high a rate of insurance for vessels in the Fraser as those who plied the more hazardous Columbia River to the south. Much to the chagrin of the citizens of New Westminster, the river which formed their commercial lifeline had an infamous reputation among mariners, and thus they had a very high stake invested in proving these unwarranted suspicions wrong. Mayne, for his part, claimed that he would as soon take a vessel into the Fraser River as Victoria, as far as risk of loss was concerned.⁵¹ Once a permanent beacon or lightship was established it was thought that the risk to shipping would be rendered minimal.

Mayne surveyed as far as Fort Yale while Richards sought the Harrison River. Mayne reported that the limit of steam navigation was approximately six or eight miles below the town due to the presence of mid-channel rocks off Strawberry Island. Douglas subsequently invited tenders to remove the obstacle but the project was eventually abandoned and the terminus

for steam navigation would remain at Hope.⁵² The terminus for boat and canoe travel was Yale, since the treacherous Lower Canyon immediately above it posed an insurmountable hazard for travellers worried about drowning. Once at Fort Yale, Mayne commenced the overland journey through the mining districts, the subject of the "Land Surveys" division in this chapter.

On May 3, 1859, Richards reported to the Governor that the survey of the Fraser River was complete to Fort Langley, and that he proposed to move ahead with the boats once there was insufficient depth to accommodate HMS Plumper. Richards hoped that the depth would permit the vessel to go as far as the Harrison River. "All above that," he reported to Douglas; "I shall leave to Mr. Mayne"⁵³ The survey proved the river navigable to Langley for vessels with a draught of eighteen to twenty feet, and "even a few miles above it" for steamships.

Richards embarked on an exploratory mission to the Pitt River with Captain Parsons and Colonel Moody aboard the Enterprise. Soon after ascending the river, he noticed that it widened and began to resemble a lake and that some of the mountains had passes that appeared to run in the same direction as the lakes of the Harrison.⁵⁴ Colonel Moody requested that the survey of the Fraser River be postponed in order to ascertain if the Pitt River contained a viable route to the gold fields. "If my time had been unlimited," wrote Richards; "I should have been glad to have followed the Lt. Governor's views, but as it is not so I did not feel myself justified in deserting the main stream for a tributary."

Richards explained to Moody that he would have been unable to justify this action to the Hydrographic Office.⁵⁵ As a compromise, he left two boats to commence the Pitt while the others continued up the Fraser. Moody made a similar request to Mayne, who refused due to lack of time, and

suggested that the Royal Engineers be utilized for this purpose.

On occasion, Richards found it necessary to refuse requests from Governor Douglas when the survey was being compromised or that the duties were within the capabilities of the civil government. In January 1859, Douglas requested the assistance of a vessel of war. Richards refused at first since he had been directed to undertake civil duties only if it did not interfere with the survey. As Richards wrote to Prevost:

I have to observe that the duties which occupy the whole of my time... eg. the completing and preparation of our last season's work for transmission to England in order that active operations may be undertaken as early as the weather will permit... cannot but be delayed by any interruption in the present season.⁵⁶

The "gravity of the situation" caused Richards to accede to Douglas' request; however, a preponderant amount of such duties for the colonial government would be detrimental to the prosecution of the survey.⁵⁷

Following the Fraser River survey, Richards proceeded to Burrard Inlet on July 25, 1859, to investigate its possibilities as an outer harbour to the capital city. One newspaper account contended that no vessel had entered the inlet since the time of Captain Vancouver and that curious Indians came to visit the ship in considerable numbers.⁵⁸ They reported the presence of coal in the inner harbour and Francis Brockton, the ship's engineer, was sent to investigate. The reports proved to be true and a work party was sent ashore to gather samples for transmission to Victoria.

HMS Plumper returned to Esquimalt to fix the sites for the lighthouses in Juan de Fuca Strait.⁵⁹ Enroute, the ship struck an uncharted rock off Porlier Pass. The crew shored the vessel with a spare topmast and jibboom, and the vessel floated off with the noon tide.⁶⁰ At Esquimalt, divers from HMS Ganges assessed the hull damage and decided that the vessel would have to be repaired at Mare Island, San Francisco, when survey work was

finished for the year.⁶¹

On August 1, 1859, HMS Plumper embarked marines and sappers for service in the boundary dispute.⁶² On August 5, 1859, HMS Ganges arrived bearing Rear Admiral Baynes, and Plumper was released to its regular duties. It returned to convey the new lighthouse committee, Captains Fulford of HMS Ganges, Mouat of HBC Otter, Nagle and Cooper, the Harbour Masters, Pemberton the Colonial Surveyor, and Richards, to Race Rocks and Fisgard Island to select sites for new aids to navigation.⁶³

In October 1859, Plumper ran aground again on a spit off Comox, further compounding the damage received earlier in the year. In December, surveying officers from Satellite and Tribune examined Plumper's main shaft and discovered that the iron at the bearing was corroded nearly halfway through. On February 10, 1860, HMS Plumper sailed for San Francisco and was wharfed into the floating dock at Mare Island upon arrival. Engineers discovered that seventy feet of false keel and several sheets of copper had been sheared off by the rocks, and the main keel splintered in several places. Once repairs were completed, the ship sailed for Vancouver Island to commence the 1860 survey season.

In June 1860, boats from HMS Plumper were called away from their regular duties to sound the treacherous Salmon Bank, where HMS Satellite had grounded the previous year. By a strange coincidence, only four days after the surveyors had departed the bank, USS Massachusetts ran aground there and was forced to put into Esquimalt for repairs. The pinnace "Shark" was duly dispatched from Esquimalt in yet another attempt to resound the elusive shoal. Later that month, HMS Satellite ran aground at Nanaimo "on account of the piles being gone."⁶⁴ Despite the best efforts of the surveyors to identify and chart all potential hazards to navigation, many

were still overlooked.

On July 31, 1860, HMS Plumper left Esquimalt in the company of Alert and Termagent on a mission to the northern tribes. While transitting Active Pass on the way to Burrard Inlet, Termagent failed to answer her helm and struck a rock off the steep bank, uprooting a tree with her foreyard in the process.⁶⁵ Initial investigation failed to determine the extent of the damage, but further examination revealed that the damage was too low in the hull for careening and the vessel would have to go to San Francisco for repairs. The accident was attributable to the unusual tidal currents that occur in Active Pass, rather than to inadequate knowledge of the sea floor. The strength and rotary action of these tides was another detail that had to be noted on charts for the benefit of mariners.

During the survey of Howe Sound, HMS Plumper narrowly escaped running aground again on an uncharted shoal off Crescent Island. Upon further examination, Richards found that the unknown shoal was a particularly dangerous one, extending from one side of a cove to the other with only eight feet of clearance at low tide.⁶⁶ The survey in Howe Sound concluded on September 28, and HMS Plumper proceeded to New Westminster to investigate reports that the marker buoys at the entrance to the Fraser River had been washed away. The reports proved to be true. Since the bouys marked the main channel at Sand Head, they had to be replaced immediately.⁶⁷ In the interim, Richards issued the Northwest coast's first "Notice to Mariners" to warn coastal shipping of the danger.

The surveying season ended in November and HMS Plumper returned to Esquimalt to land the instruments ashore and trace the year's results. That year's survey had been the most productive one since Richards arrived on the Northwest coast in 1857. As Gowlland summarized:

We have done a great deal more work last season than any of the previous ones: the whole of Johnstone Strait from Cape Mudge to Cape Scott, the whole of Jervis Inlet north from Howe Sound and Howe Sound itself, Texada Island, coast of V.I. between Cape Lozo and Mudge, part of Quatsino Inlet, making nearly 1300 miles of coastline sounded for the year 1860.⁶⁸

In addition, Richards was able to report on the overland explorations of Lieutenant Mayne to the colonial secretary. Tracings of Mayne's exploration from Howe Sound to the Lake country were included in the report to the colonial government, as was a supplementary report on his exploration of the Squamish River and the country at the head of Howe Sound.⁶⁹

On October 4, 1860, Richards and Pemberton fixed angles on the newly erected Fisgard Lighthouse, in preparation for its scheduled lighting that month. Later, on November 6, Richards forwarded instructions to the governor for the lightkeepers of Race Rocks and Fisgard Lighthouses.⁷⁰ Richards recommended that a commission of three be appointed to oversee the maintenance of the lights, or that a permanent salaried position be established for an inspector of navigational aids. In addition, he recommended that an efficient signalling system be developed for communicating with the lighthouse on Race Rocks. Douglas later appointed Richards and three naval officers to carry out all of these tasks as part of a standing lighthouse board.

On December 23, 1860, HMS Hecate arrived at Esquimalt to relieve Plumper after an arduous 182 day voyage from England. Arrangements had to be hurriedly made for the transfer of men and equipment to the new ship, and for the Plumper's voyage home.⁷¹ On Christmas Day 1860, the ship's company commenced the move to their new berth. First Lieutenant Moriarty remained aboard to conduct the Plumper to England. The remainder of the ship's company turned over to Hecate on January 1, 1861.⁷² On January 28, 1861, HMS Plumper sailed for England; it was decommissioned immediately upon arrival and was later broken up in 1865.⁷³

Captain Richards retained most of his original wardroom in the move to HMS Hecate: Lt. Mayne as First Lieutenant; Daniel Pender and E.P. Bedwell as Ship's Masters; W.H. Brown as Paymaster; Drs. Wood and Campbell as Surgeons; Gowlan and Browning as Second Masters; and E.R. Blunden as Master's Assistant.⁷⁴ The crew spent the first week refitting Hecate for service in the upcoming surveying season. The new ship was described as "a most successful vessel for our work, so well adapted for sounding, stopping easily and losing her way almost instantly."⁷⁵ Mayne, for his part, was also "greatly delighted with the change, for though possessing no external beauty (HMS Hecate) was very roomy and comfortable, my new cabin alone being nearly as large as the messroom of the Plumper."⁷⁶

While at Boundary Commission Barracks, Richards devised a navigation plan for the Fraser River. On January 1, 1861, he presented a proposal for the buoing of the Sand Heads, a significant navigational hazard, as well as Kelp Reef in Haro Strait, where the barque N.L. Perkins had recently grounded.⁷⁷ Richards proposed the buoing of the latter to appease the public outcry rather than for any navigational imperative as "the fact is that Haro and neighbouring channels cannot be safely navigated without many lights and beacons, and to place a bell buoy on the Kelp Reefs would be simply marking one minor danger and leaving many more serious ones without a warning."⁷⁸

Richards further proposed that the colony consider obtaining a lightship for the Fraser river which could also serve as a pilot vessel. A lighthouse at the Sand Heads would be of limited use as "no single light would enable a vessel to pass through the shoals of the river by night."⁷⁹ Only small vessels could negotiate the river safely at night and, in any case, nearby safe anchorages rendered it unnecessary for large vessels

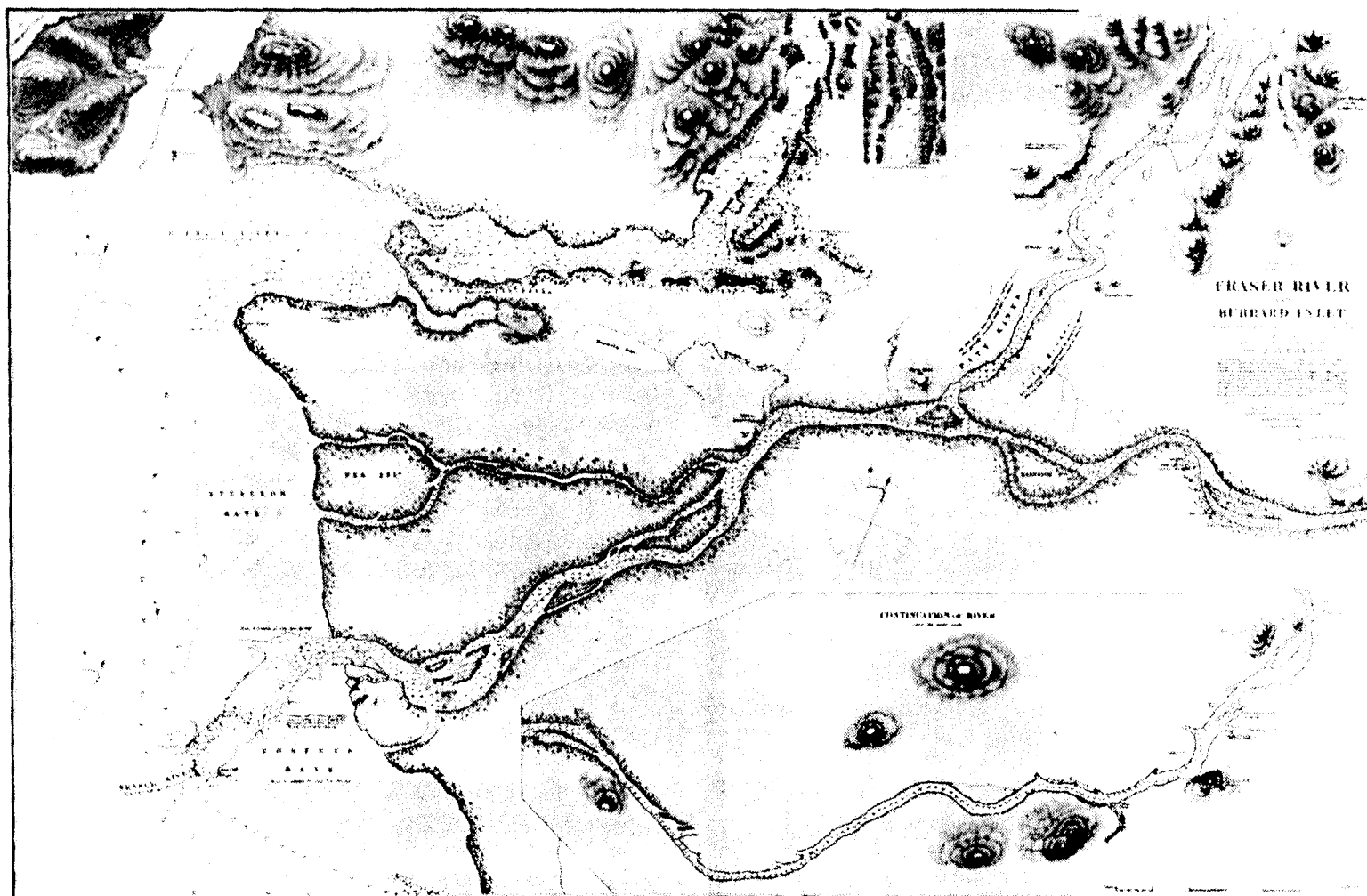
to make the attempt. If a light ship proved too expensive for the colonial government, then Richards proposed that an Iron can buoy be obtained at minimal cost. The colonial government finally established a lightship on the Fraser River in 1866.

In November 1860, the Town Council of New Westminster requested that Richards disprove rumours that the Fraser River was unfit for vessels of large tonnage. The British Colonist reprinted Richards reply to the council, adding that "since it effectively silences all who may have taken the position that only vessels of small tonnage could cross the bar at the mouth of the river and proceed to New Westminster." However, Richards cautioned that "while the river is more accessible than most of the rivers on the coast, it is not at all times accessible" due to the fluctuations in tidal height.⁸⁰ As Richards further remarked:

Effectively sheltered and protected as it is... by the natural breakwater which the sister colony affords, your noble river is accessible at most time to vessels of 18 to 20 feet draught and 1,000 tons burthen, subject to only occasional inconsiderable delay at certain stages of the tide.⁸¹

"It is free from risk of life or property in a higher degree than any river... on the western side of the continent, and when a light vessel is established at the Sand Heads or the entrance marked by permanent buoys, the seaman may guide his vessel with ease and safety."⁸²

On January 11, 1861, while night steaming in the Strait of Georgia, Richards observed that Race Rocks light had been allowed to go out.⁸³ He wrote to Douglas to suggest that corrective action be taken to prevent future negligence. In response, Douglas pondered the creation of a lighthouse board, but was unable to find anyone competent for the task.⁸⁴ Since only the Royal Navy could provide the necessary expertise, Douglas requested the services of Richards as board chairman, and charged the committee with



G.H. Richards. *Fraser River and Burrard Inlet 1859-60*. London: Hydrographic Office, 1860, Corrected to 1868. Chart 1922.

overseeing the property, maintenance and financial management of the lighthouses at Race Rocks and Fisgard Island, and with the task of hiring lightkeepers. The commanding officers of the gunboats Grappler and Forward, Lieutenants A.P.H. Helby and L.R. Robson, were named to the board on a stipend of £100 per year, and Daniel Pender was named an "honourary member."⁸⁵ The lighthouse commission convened for the first time on February 4, 1861.

There were limits, however, to the number of civil duties that Richards was willing to undertake. Colonel Moody had requested Richards' advice on the selection of the best sites for towns in the area of North Bentinck Arm and Bute Inlet. As the survey could no longer be postponed, Richards declined explaining that he could not deviate from his schedule without causing "serious detriment" to the service in which he was engaged. Furthermore, the severity of the weather and their inability to carry out the inland requirements of the mission rendered it impossible to carry out Moody's request at that time.⁸⁶

Meanwhile, the ship's officers were in the midst of preparing the results of the year's survey for transmission to England. HMS Hecate was then in the midst of a substantial refit, and by mid-February, fleet carpenters had shifted the Crew's galley to the lower deck and converted the Wardroom galley to an armourers shop.

On March 15, 1861, the surveyors completed the chartwork for 1860 and transmitted the results to England. On March 22, 1861, HMS Hecate proceeded to the Fraser River to lay bouys at the channel entrance. The next day, Hecate became the first vessel of its size to anchor off New Westminster, thus proving the river navigable for large sea-going vessels.⁸⁷

The once-small community had grown considerably since HMS Plumper's last visit, and its houses and wharves were multiplying with the increase

in ocean and coastal commerce.⁸⁸ That HMS Hecate proved the commercial viability of the river, and thus disproved the unfounded rumours that it was as dangerous as the Columbia, was a matter of great importance to the inhabitants of New Westminster and to the future prosperity of the colony. "This was a subject of great rejoicing to the people of Westminster," observed Mayne.⁸⁹ "At once the forest is rapidly disappearing under the vigorous strokes of hardy Canadian axes and no doubt New Westminster will be the principal emporium into B.C," predicted Gowlan.⁹⁰ The grateful townspeople offered to throw a celebratory banquet in Richards' honour, which he declined saying he had only done his duty, and "that he had come to buy the mouth of their river, not to feast."⁹¹

On April 17, 1861, an intensive two months' surveying began when Hecate proceeded to Barclay Sound.⁹² At Port Alberni, Richards encountered Captain Edward Stamp and his large logging enterprise, and named the harbour in his honour.⁹³ The Alberni sawmill was the largest and most prosperous in the colony, employing over seventy men, two schooners and two steamers, to exploit the lucrative lumber trade to America, Australia, and China. Mayne noted that the strategic location of the enterprise on the West coast of the island enabled navigators to avoid the difficulties of the Strait of Juan de Fuca and Admiralty Inlet, port charges, opportunities for crew desertion, and time loss, that had to be borne by rival logging businesses in Washington and Oregon. Richards then chose to survey the Alberni Canal for Stamp's benefit, reflecting his determination to facilitate the growth of commerce on Vancouver Island wherever possible.

Some indication of the work involved in the annual surveys is revealed in the reconnaissance of the southwest coast of Vancouver Island in May/June 1861. The survey of Alberni Canal commenced May 4 and was completed by

May 18, 1861.⁹⁴ On May 21, HMS Hecate commenced the survey of Barclay Sound, detaching parties to Port Effingham, Sechart Channel, Tocquart and Ouchucklesit Harbours.⁹⁵ The ship remained in Barclay Sound until June 9, when it departed to complete gaps in older charts of the entrance to the Strait of Juan de Fuca and Cape Flattery.⁹⁶

On June 27, 1861, HMS Hecate commenced the triangulation of Clayoquot Sound. During this survey, numerous unknown channels and inlets were discovered and some, such as "Brazo de Tofino," were found to have been inaccurately described by earlier explorers.⁹⁷ Richards remained in Clayoquot Sound until August 15, 1861.⁹⁸ While proceeding southward from Nootka Sound in a dense fog to the Strait of Juan de Fuca, Hecate ran aground at Neah Bay, near Cape Flattery.⁹⁹

Mayne relieved Richards of the watch on the morning of August 19, 1861. Richards had only just retired to his cabin when the ship ran into a nest of rocks.¹⁰⁰ Fortunately for Hecate, the master of a nearby schooner heard the sound of steam escaping from the engines and came over in a canoe to see if he could be of assistance. The tide was steadily rising, and with it the vessel gave two tremendous crashes, sending all aboard "flying about in different directions."¹⁰¹ After the second crash, the chief engineer reported extensive damage to the cross-sleepers and the bunker, and warned that if another crash occurred, the engines would go through the ship's bottom. "This was cheerful intelligence," mourned Mayne; "and everything was got ready for a sudden departure in the boats."¹⁰²

The schooner-master assured Richards that if the ship could last until the tide rose a few inches, he could then guide it to a safe channel. Hecate lifted off the rocks with the tide and Richards guided it in safely beside his small schooner. "No mortal could have put her there on the

calmest, smoothest day," recounted a relieved Mayne; "but there she was, and right thankful for our most merciful escape were we, who a few minutes before, could see no possible chance of saving her."¹⁰³ Since the damaged engines were still in working order, steam was got up in haste to proceed to Esquimalt for repairs. Crewmen patched the vessel with oakum, felt, and sheet lead to reduce leakage to one inch of water per hour.¹⁰⁴ The master expertly guided the ship through the rocks by whale-boat in a passage that was little more than the ship's beam across. Once in safe water he cast them off, ending "as narrow an escape from total loss as any ship ever had," recalled Mayne. Upon further examination by carpenters from HMS Ganges, it was determined that HMS Hecate must return to San Francisco for repairs in the company of HMS Mutine.

The time at San Francisco spent awaiting the completion of repairs passed without incident. The officers busied themselves in the chartroom preparing the tracings for transmission to England, while the crew went on leave. As Lieutenant Mayne had been ordered home upon his recent promotion to Commander, he boarded the U.S. Mail Steamer Orizoba for England on October 21, 1861. His replacement was Lieutenant Henry Hand, who arrived aboard the U.S. Steamer Sonoma on October 26, 1861. HMS Hecate left San Francisco the following day and was back in Esquimalt on November 1.¹⁰⁵

The surveying season for 1861 was over. The accomplishments of 1861 were impressive; Hecate had completed Barclay Sound, Alberni Canal, Clayoquot Sound, and many other smaller harbours along the coast.¹⁰⁶ HMS Hecate remained in winter quarters at Esquimalt, but some local surveying continued. Chart errors were discovered between Victoria and Trial Island, and Bedwell was dispatched to re-examine the area. In addition, Richards was nominated to head a governor's commission "to enquire into and report

upon the state of Victoria Harbour, and the best means for its permanent improvement."¹⁰⁷

On November 14, 1861, Lieutenant Hankin landed twenty men at Point Roberts to construct an obelisk to commemorate the Oregon Treaty of 1846 and to mark where the 49th Parallel of latitude fell. Construction continued throughout December while officers prepared tracings for transmission to England. By December 22, the boundary obelisk was complete.

The final survey season commenced on March 15, 1862. After some initial activity in Nanaimo, Fort Rupert, and the Fraser River district, surveying of the western coast of Vancouver Island commenced at Quatsino Sound on April 12. By mid-summer, HMS Hecate had completed Quatsino Sound, Nootka Sound, Esperanza Inlet, and Resolution Cove.

In August and September, 1862, HMS Hecate surveyed Queen Charlotte Sound and the Queen Charlotte Islands. Goletas Channel, in particular, was thought to be a hazardous fairway for navigation. "Vancouver himself attempted to pass out, and got on shore," observed Gowlland; "the Hudson's Bay steamers and local trading schooners never attempt this passage for some reason which they do not know themselves."¹⁰⁸ The reports later proved to be exaggerated. In the survey of the Queen Charlotte Islands, serious distance errors were discovered on the original charts of area by Thomas Inskip of HMS Virago. In October 1862, similar errors were observed in the early Spanish charts of the northern coast; in particular, the original surveyors appeared to have overlooked an entire bay in the vicinity of Cape Scott.¹⁰⁹ As a result of such errors and omissions, Richards and the surveyors had to remain vigilant lest they should repeat or compound the mistakes of their predecessors.

On October 27, HMS Hecate began the survey of Nanaimo harbour, and

buoyed its entrance channels. Once this task was finished, the Admiralty considered that the survey of the Northwest coast of North America was complete. The citizens of Nanaimo presented a memorial to Captain Richards in gratitude for his services to their city and to the colony.¹¹⁰ The following day, HMS Hecate paid a final visit to New Westminster, where the townspeople delivered another memorial thanking Richards for his services in the Fraser River survey.¹¹¹ The city had good reason to be grateful to Captain Richards, for he had proved the commercial viability of their river and had thus ensured their future prosperity.

HMS Hecate returned to Esquimalt on November 6, and commenced the preparations for the journey home to England. Richards reported to Douglas that the buoying of Nanaimo harbour was complete and the chart ready for immediate publication.¹¹² It was recommended that the Royal Engineers make 120 lithographs for immediate sale, rather than awaiting published editions from the Admiralty.¹¹³ In view of the importance of the Nanaimo coal trade and the fact that groundings had recently occurred in the harbour, Richards recommended that the Harbour Act be extended to Nanaimo. Also, in order to deal with increasing marine traffic, a harbour master and a "Captain of the Port" should be appointed, and pilots made mandatory for all incoming vessels.

On November 10, HMS Hecate dressed overall and fired a Royal Salute in honour of the Prince of Wales's birthday for its last visit to Victoria. The vessel was called out on November 14 to deliver an arrest warrant to the Royal Marine Camp at San Juan Island for a fugitive horsethief.¹¹⁴ While preparations continued for the journey home, boats were sent to re-survey Constance Bank in Haro Strait.

Richards was directed by the Admiralty Hydrographer to organise

a successor expedition to chart the northern coast of British Columbia.

Daniel Pender was to command the new survey, with Blunden as his assistant.¹¹⁵

Richards obtained the Hudson's Bay Company steamer Beaver for the annual lease of £1,000. Since the Admiralty allotted only £3,500 out of £4,000 needed to finance the survey, Richards prevailed upon Douglas to guarantee the remaining £500 necessary. The Governor, seeing the advantages of a well surveyed coast, readily assented to Richards' request.¹¹⁶ On December 20, 1862, Daniel Pender, E.R. Blunden, and six petty officers were discharged from Hecate to take up the new commission.¹¹⁷

A vote of thanks was given to Richards from the Colonial Assembly of Vancouver Island. Douglas promised that his service would be brought to the attention of the Colonial Office and the Admiralty.¹¹⁸ Richards praised the assistance rendered by the governor throughout the survey:

To the great interest that you have invariably manifested in the progress of our work, I must in a great measure attribute any success which may have attended our exertions during our lengthened sojourn here.¹¹⁹

The valedictory was apt; no one deserved the surveyor's praise more than Douglas, who had ever been their most powerful protector and friend, but then a far greater debt was owed them by Douglas for the legacy of the hydrographic survey and International Boundary Commission to the two colonies.

HMS Hecate sailed for England on December 22, 1862 and arrived in Plymouth on January 3, 1864, and paid off at Woolwich the following day. Richards had been absent for nearly seven years.¹²⁰ After paying off, Hecate was placed in the third division of the Steam Reserve, where it was later determined that the vessel was beyond economical repair, and it was broken up in 1865.¹²¹

This chapter has traced the chronological development of the hydrographic survey of the Northwest coast and has elucidated significant

contributions to the commerce and safe navigation of the colonies. It has shown the substantial role played by Richards and the surveyors in the marine affairs in the Northwest colonies. The prosecution of the survey was consistently interrupted by civil requests for assistance, which Richards granted if Admiralty requirements were not compromised and if the local authorities lacked the necessary expertise. The services rendered to the colonies added to the already considerable workload of the hydrographic survey, thus extending the survey in time without serving any clearly defined Admiralty imperative.

NOTES

1. James Douglas to Henry Labouchere, April 16, 1857, CO 305/8. For details concerning the transfer of the Naval Hospital buildings at Esquimalt to the Boundary Commission for use as barracks, see Douglas to the Secretary of the Admiralty, 28 July 1857, and Douglas to Capt. J.C. Prevost, 19 October 1857, quoted in W. Kaye Lamb, "Correspondence Relating to the Establishment of a Naval Base at Esquimalt, 1851-57," British Columbia Historical Quarterly, Vol. VI, No. 4 (October 1942), pp. 295-6.
2. Douglas to Labouchere, June 17, 1857, Idem; Captain James Prevost to Secretary of the Admiralty, June 14(?), 1857, Pacific Station Records.
3. Douglas to Labouchere, June 17, 1857, Idem.
4. Douglas to Labouchere, June 29, 1857, Idem.
5. Prevost to Secretary of the Admiralty, June 29, 1857, Pac. Stn. Rec.
6. Douglas to Labouchere, June 29, 1857, CO 305/8.
7. Idem.
8. Idem.; see also Douglas to Labouchere, August 13, 1857, Idem.
9. Douglas to Labouchere, June 29, 1857, Idem.
10. McCabe. op. cit., p. 22.
11. Idem.
12. Prevost to Secretary of the Admiralty, June 29, 1857, Pac. Stn. Rec.
13. Prevost to Secretary of the Admiralty, December 7, 1857, Idem.
14. Idem.
15. Idem.
16. Mayne. op. cit., p. 133.
17. Ibid., p. 137.
18. Idem.
19. McCabe. op. cit., p. 30.
20. Idem.
21. Idem.
22. Idem.
23. Mayne. op. cit., p. 142.
24. McCabe. op. cit., p. 31.
25. Ibid., p. 32.
26. Ibid., p. 33.
27. Washington, Admiralty Hydrographer, "Surveying Instructions to Capt. G.H. Richards, HMS Plumper, March 1857," BCARS.
28. Colonial Correspondence (hereafter "C.C.") file 1217, HMS Plumper. Richards to Douglas, 15 October 1858. See also Douglas to Richards, October 14, 1858, Papers Relative to the Affairs of British Columbia, Part. I, p. 49.
29. C.C. 1217. "Report by Geo. H. Richards, Capt. of the Surveying Ship Plumper on the Harbours of Vancouver Island and the coast of British Columbia," 23 October 1858. See also Douglas to Lytton enclosure no. 49, 7 February 1859, Papers Relative to the Affairs of British Columbia, p. 61. Richards apologised that the time demands of the boundary survey caused the report to be "more general and cursory than I could have wished."
30. C.C. 1217. "Report... on the Harbours of Vancouver Island and British Columbia," loc. cit.
31. Washington, "Surveying Instructions," loc. cit.
32. C.C. 1217. "Report... on the Harbours of Vancouver Island and British Columbia," loc. cit. Richards noted that large, long spars of mast length, suitable for the ships of Her Majesty's Navy, could be found in abundance in the arms of these same sounds and inlets "which in some instances reach

midway to the Eastern coast of the island." "It is more than probable," added Richards; "that when the tide of emigration shall set in the direction of Vancouver Island these inlets will become of great importance." Of particular importance he thought were that of Nitinat or Barclay Sound on the South west coast of the island at the entrance of Juan de Fuca Strait.

33. idem

34. C.C. 1217. Richards to Douglas, 21 January 1859. This letter is also quoted in Longstaff, Pacific Station notes, loc. cit.

35. idem.

36. Douglas to Lytton, November 3, 1858, Papers Relative to the Affairs of British Columbia. op. cit., Part II, p. 19. Quoted in Dorothy Blakey Smith, "The First Capital of British Columbia: Langley or New Westminster?" British Columbia Historical Quarterly, Vol. XXI, Nos. 1-4 (January to October, 1957-1958, p. 25.

37. Baynes to Secretary of the Admiralty, November 14, 1859, Pacific Station Records.

38. C.C. 1217. Richards to Pemberton, 7 February 1859.

39. C.C. 1212a. HMS Ganges file. Baynes to Douglas, June 23, 1860.

40. C.C. 1217. Richards to Young, 6 February 1859. In January of 1859, Douglas wrote to Richards requesting the assistance of his ship. Richards was initially reluctant to grant the request since Captain Prevost, in his capacity as Senior Naval Officer, had assented to the request only on the condition that it did not interfere with the Plumper's surveying schedule, which it clearly did: "I have to observe," wrote Richards; "that the duties which occupy the whole of my time and that of my officers; - eg. the completing and preparing of our last seasons work for transcription to England in order that active operations may be undertaken as early as the weather will permit in the ensuing spring cannot but be delayed by the interruption in the present season." Richards gave in to Douglas' request. C.C. 1217. Richards to Prevost, 7 January 1859.

41. Burns, "The Exploits of Lieut. Mayne, R.N.," The Beaver, Autumn 1958, p. 13.

42. C.C. 1217. Richards to Douglas, 7 April 1859.

43. idem

44. C.C. 1217. Richards to Douglas, 13 April 1859. This letter is also quoted in Longstaff, Pacific Station miscellaneous notes, loc cit.

45. idem.

46. Archives of British Columbia. Memoir No. IV House of Assembly Correspondence Book August 12th, 1856, to July 6th, 1859. (Victoria, BC: King's Printer, 1918), pp. 56-61.

47. C.C. 1217. Richards to Young, 18 May 1859. This as well as other civil demands were severely taxing on Richards' strength as he complained to Douglas: "I am overwhelmed with letters which came in a lump during my absence and I am also borne down by accumulated work... the days are too short and I find when night comes I require to go to bed like other Christians."

48. Burns. "The Exploits of Lieut. Mayne, R.N.," op. cit., p. 17.

49. Mayne. Four Years. op.cit., p.81. see also Kathleen Weeks series of articles, "Surveyor in B.C., 1859," 25 September 1943; "B.C.'s Famous Indian," 2 October 1943; "In Wilderness of B.C.," 9 October 1943, The Province, Vancouver.

50. ibid., p. 82.

51. ibid., p. 83.

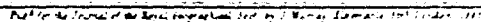
52. ibid., p. 96. For a condensed account of the overland expedition

- see "Surveyor in B.C., 1859," Vancouver Daily Province, 25 September 1943.
53. C.C. 1217. Richards to Douglas, May 3, 1859.
 54. idem.
 55. idem.
 56. C.C. 1217. Richards to Prevost, January 7, 1859.
 57. C.C. 1217. Richards to Young, May 18, 1859.
 58. The Province, April 4, 1936.
 59. C.C. 1217. Richards to Young, 29 July 1859.
 60. "The Journal of John Thomas Gowlan," 29 July 1859, BCARS. Upon their return to Esquimalt, they first learned that American soldiers had invaded the San Juan Islands.
 61. Mayne. op. cit., p. 140.
 62. By August 3, Plumper was joined by USS Constitution; tension was high and the vessel beat to general quarters. USS Massachusetts steamed out of harbour later that day, lessening the heightening tension. The following day HMS Satellite left Griffin Bay. HM Ships Pylades and Satellite proceeded to join the forces at Griffin Bay while Plumper remained at Esquimalt painting ship until called out on other matters.
 63. The British Colonist, August 3, 1859.
 64. Gowlan. loc. cit., 21 June 1860.
 65. Mayne. op. cit., p. 207.
 66. Gowlan. loc. cit., 13 October 1860.
 67. ibid., 28 October 1860.
 68. Gowlan. loc. cit., 3 November 1860.
 69. A melancholy event occurred which saddened all the crew. Mr. Bull, the Ship's Master, died suddenly on November 14 of no apparent cause. The funeral was held on November 17, 1860, and was attended by all the fleet officers.
 70. C.C. 1217. Richards to Young, 6 November 1860.
 71. The British Colonist, August 29, 1861.
 72. Gowlan. loc. cit., 31 December 1860. "We all regret much leaving the old ship which has become so endeared to us from our long acquaintance together," lamented Gowlan; "but as we are going to a larger and more comfortable vessel, I am afraid that the remembrance of the Plumper will be all that will remain in our minds."
 73. Hankin, loc. cit., p. 39.
 74. Gowlan. loc. cit., 1 January 1861.
 75. ibid., 14 June 1861.
 76. P.W. Brock. Ships Dossiers. HMS Hecate pamphlet.
 77. C.C. 1215. Richards to Young, 1 January 1861.
 78. idem.
 79. idem.
 80. The British Colonist, 8 November 1860.
 81. idem.
 82. idem.
 83. C.C. 1215. Richards to Douglas, 11 January 1861.
 84. C.C. Col. Sec. Vancouver Island. Douglas to Richards, 18 January 1861.
 85. C.C. Col. Sec. V.I. Young to Lieutenant A.P.H. Helby, 4 February 1861; idem, Young to Daniel Pender, 4 February 1861; and idem, Douglas to Richards, 4 February 1861.
 86. C.C. 1215. Richards to Young, 11 March 1861.
 87. Mayne. op. cit., p. 224.
 88. Gowlan. loc. cit., 23 March 1861.

89. Mayne. op. cit., p. 224.
90. In the company of HMS Forward, Hecate proceeded to Nanaimo to coal ship. Gowlland's ardour for New Westminster was not echoed in his assessment of Nanaimo, for he noted that it had failed to progress much in the three years that he had observed it, and had remained much in its original backward state.
91. Mayne. op. cit., p. 224.
92. Brock. loc. cit. See also The British Colonist, April 15, 1861.
93. Gowlland. loc. cit., 19 April 1861. Richards named the settlement "Alberni," confirming the original name from the period of Spanish coastal exploration. See W.J. Bamfield to Amor de Cosmos, The British Colonist, 30 May 1861, and Walbran. op. cit., pp. 15-16, 469.
94. Gowlland. idem. The cove was named "Wreck Bay" in memory of the Florencia, which had gone aground there and was still visible at high tide. The wreck had been purchased for \$ 100 by Captain Stewart "in a vain hope that he might save her."; See also John T. Walbran. British Columbia Coast Names. (Ottawa; Government Printing Bureau, 1909), pp. 181-182.
95. Gowlland. loc. cit., 29 May 1861.
96. Mayne. op. cit., p. 230.
97. Gowlland. loc. cit., 23 July 1861.
98. ibid., 15 August 1861.
99. Brock. loc. cit.
100. Mayne. op. cit., p. 237.
101. ibid., p. 238.
102. idem.
103. After rendering assistance, the schooner captain had requested only nominal remuneration from Richards ("Now there is plenty of water round the ship, and I'm almighty dry ! If you'll give me a chart, Captain, and a bottle of rum, I'll think of you often !"). Later, a grateful Admiralty sent the American captain a spy-glass for his trouble. However, the gift did not deter him from making an exorbitant claim for salvage to the Admiralty, which, at the time of Mayne's writing (1862), was still pending in the courts. See Mayne. ibid., p. 239.
104. Brock. loc. cit.
105. Gowlland. loc. cit., 21 October 1861. The vessel that Mayne boarded for passage to England was laden with 700 Union troops under General Sumner bound for service in the U.S. Civil War. Gowlland related the following occurrence in his journal: "They steamed out playing the national anthems of each nation on passing the respective ships of war, and mistaking (sic) a cheer (intended for Commander Mayne) as a fare well exchange of good feeling for themselves they responded most vigorously the steamer stopping and the band playing God Save the Queen - I think we were wrong to cheer at all as it was evidently construed into (unreadable) feelings for the north, when I am pretty certain the sympathy of us all was for the Confederates." Upon return to Esquimalt, the officers and men found that a number of melancholy events had occurred in their absence. The harbour master had lately been turned out of office. Lieutenant Robson, Commanding Officer of HMS Forward, had been killed by an accidental fall from a horse while out riding. Fever raged aboard HMS Topaze and many sailors had died in the interim.
106. ibid., 10 December 1861.
107. C.C. Col. Sec. V.I. Charles Good (on behalf of the Colonial Secretary) to Richards, 1861.
108. Gowlland. loc. cit., 28 August 1862.

109. ibid., 4 October 1862.
110. See "Nanaimo Literary Institute," in The British Colonist, Victoria. 8 December 1862.
111. See Gowlland. loc. cit., 3 November 1862, "Memorial of the people of New Westminster to Capt George Richards," Harry Holbrook, President of the City Council, and 61 others, to Richards, November 1862.
112. C.C. 1215. Richards to Douglas. 7 November 1862.
113. C.C. 1215. Richards to Douglas, 13 December 1862.
114. C.C. Col. Sec. V.I. Douglas to Richards, 14 November 1862.
115. Gowlland. loc. cit., 6 December 1862.
116. Sir Archibald Day. The Admiralty Hydrographic Service 1795 to 1945 (London: HMSO, 1967); see also Sandilands, "Hydrographic Charting and Oceanography on the West Coast of Canada from the Eighteenth Century to the Present Day," op. cit., p. 79.
117. Brock. loc. cit.
118. C.C. Col. Sec. V.I. Douglas to Richards, 19 December 1862. See also The British Colonist, Victoria, December 25, 1862.
119. C.C. 1215. Richards to Douglas, 20 December 1862.
120. Brock. loc. cit.
121. idem.

SURVEYS ON LAND



"Alberni Canal and Nanaimo." Map by R.C. Mayne, 1861.

"It has been my desire and practice," Richards explained in a 1862 despatch to Governor Douglas; "as far as the more immediate duties of the maritime survey would permit, to gather as much information as possible on the interior of the Island, as well as of the adjacent continent."¹

In this conviction, officers and men were taken from survey duties to explore unknown territory for the benefit of the colony. As he further explained:

I am quite aware that the limited time I have been able to devote these objects -- the physical difficulties in the country -- and above all the obstacles always incident to first explorations will deprive such attempts of much of the value which at first might seem to attach to them, and that the results can scarcely be considered commensurate with the labour and risk frequently attended on their accomplishment; yet as I believe such preliminary explorations will serve materially to aid future research, and as I know your Excellency's views on the subject are similar to my own, I have never been discouraged from attempting them, however problematical or remote the advantages to be derived might appear to be, and I should be doing justice to the efforts of the officers employed on each service and I must say I have always² found them ready and anxious to carry out my views to the utmost.

By the time Richards had arrived on the Northwest coast in 1857, inland exploration had contributed much to furthering the settlement and development of the colonies. In 1793, Alexander Mackenzie made his way overland to the Pacific Ocean at Bella Coola, just a few weeks after Captain Vancouver completed the survey of Burke Channel. In 1808, Lewis and Clark arrived at the mouth of the Columbia River at Cape Disappointment after an arduous trans-continental journey. In that same year, Simon Fraser made his way down the hazardous river that now bears his name and followed it to its mouth at the Strait of Georgia. In 1810, David Thompson discovered the source of the Columbia River and traced its route to the Pacific Ocean.³ With each step the explorers took, the Northwest coast was becoming a smaller place and thereby ripe for settlement and commercial development. It is in this spirit that Richards sanctioned overland exploration; to not only benefit the colony economically, but also to strengthen British authority

on the frontier by increased knowledge of its terrains and inhabitants.

In 1859, Governor Douglas had requested that a running survey be made of the Fraser River, and a report be submitted on the state of the mining districts. Lieutenant Mayne had been delegated responsibility for both the running survey and the land exploration. On May 2, 1859, Mayne commenced his journey to Lytton, accompanied by Dr. Campbell and nine Indian guides. Since the Lower and Big Canyons were only passable by canoe in wintertime, they progressed on foot through portions of the three main trails through the canyons. The first, the "Mule-Trail," was entirely blocked up by snow, being usually not open until June.⁴ The lower trail was passable only at low water since it consisted of a ledge of boulders along the bottom of the cliff where there was a rough path. The upper trail passed "from ledge to ledge" at a height that ranged from 50 to 100 feet. Mayne and his party passed over parts of all three trails, as, upon finding an obstruction in one, they would pass over to another. At the most hazardous part of the journey, Jackass Mountain, Dr. Campbell slipped and nearly fell into the torrent below, only grasping a root in the nick of time to save his life. Once passed Jackass Mountain, the rest of the trip went off without incident and the party reached Lytton two days later, five days after leaving Yale, having travelled a total distance of 60 miles.

At Lytton, Mayne resided at the Hudson's Bay Company buildings provided for the District Magistrate and his constable. Here he decided to diverge from his intended direct route to Lilloet, instead proceeding by way of the Nicola River and Lake to either Fort Kamloops or Thompson on the Thompson River.⁵ The Indian guides deserted Mayne upon hearing of this, since he refused to return directly from Kamloops. Only Tom, his Indian interpreter and another Indian remained, and Mayne managed to engage a local Indian

who owned two horses to carry their now reduced load of provisions. Mayne proceeded from Lytton along the banks of the Thompson River to the Nicola, where he found that the spring runoff from the mountains had rendered it nearly impassable. They crossed the river by swimming the horses across and bringing the party and baggage over one at a time on the horses backs.

Upon following the course of the Nicola, Mayne encountered the Skowtous tribe, whose chief, No-as-is-ticun, invited him for a breakfast of willow grouse at the Indian village. The elder chief explained that his domains extended as far as the Thompson River, where the Shuswap territory began. Upon learning Mayne's intended destination, he insisted on accompanying them through his ancestral lands, and offered them additional horses for the journey. Mayne declined the offer of the horses but for the remainder of the journey was joined by No-as-is-ticun and "eight or ten" tribesmen.⁶ They arrived safely at Fort Kamloops, where Mayne paid a courtesy call on Jean-Baptiste Lolo, or "St. Paul," the famous Shuswap chief, at his lodgings near the fort. Mayne invited St. Paul to accompany them on a day long excursion into the mountains, where, upon reaching the summit of the largest mountain, they christened it "Mount St. Paul" in honour of the old chief.⁷

While at the fort Mayne learned that the rivers between Kamloops and Pavilion on the Fraser were swollen and impassable without horses. These were obtained at nominal cost from St. Paul who also offered to guide them on the next leg of their journey. Tom, the native interpreter, had fallen ill and his companion refused to leave him, leaving Mayne without guides so St. Paul's assistance came at an opportune moment.⁸ Secondly, St. Paul had considerable influence among the tribes of the interior and Mayne felt that "if he lived through the journey," would conduct them safely

through the unknown territory.⁹

Mayne embarked on May 14, 1859, in the company of Campbell, St. Paul, and eight Indian horsemen, four to carry provisions and the remainder to serve as the chief's personal bodyguard. The journey was beset with natural hazards such as "Mauvais Rocher" off Kamloops Lake and the treacherous Bonaparte River. Successive attempts to ford the Bonaparte had failed and St. Paul's patience was tested sufficiently that he forded the dangerous river by himself and encouraged the others to follow his lead. Soon the party arrived at the other side, but not without loss; Mayne's sextant was damaged in the crossing, but as he had a pocket model with him the loss was not irreparable. The party followed the river to its junction with the Chapeau, and followed it to a large valley whose tributary rivers ran to the Fraser.¹⁰ They soon passed Crown Lake and at Pavillon Lake encountered another jag in the trail which, like "Mauvais Rocher," was entirely unsuitable for wagon travel.

It had taken five days of difficult travelling to reach Pavillon and St. Paul, suffering from a wounded knee, was too exhausted to continue with the journey to Alexandria. Mayne had already gone beyond where his instructions directed him to go and was unwilling to entail the expense of preparing a new party for further exploration, so he determined to return by way of the Harrison-Lilloet route to the mouth of the Fraser.¹¹ St. Paul and his entourage left them at Pavillon three days later. Mayne left Pavillon on May 23, 1859, accompanied now only by Dr. Campbell and an Indian guide. They passed through the mining districts at Lilloet and Port Douglas, and arrived back at HMS Plumper at Esquimalt on June 19, 1859.

In his report to Richards, subsequently forwarded to the Admiralty, Mayne reported on the general state of the gold regions and its suitability

for cultivation and settlement.¹² He noted that there was hardly any useful land for farming between Lytton and Yale, since the land was mostly rocky, an exception being some isolated small plots of sandy soil in the vicinity of Spuzzum. In the Nicola River district, Mayne reported that some arable grassland existed but that it was constantly being flooded in summer, and possessed substantial quantities of nitrate in the soil, which, according to McLean of the Hudson's Bay Company, destroyed wheat but had little effect on vegetables. Good soil could be found in the vicinity of Fort Kamloops, but reportedly even better in the area of the headwaters of the Thompson, Semilkamen Valley, and Fort Alexandria. The valley of the Scaarlux River was particularly fertile, having within a variety of vegetation including wild peas, lettuce, and berries at all level spots, and Port Douglas was said to possess the finest cedars in the country.

At Great Harrison Lake, Mayne reported that a shallow flat at the entrance prevented the ingress of goods via flat-bottomed steamers. The obstacle would require the building of a canal, Mayne noted; a necessary expense "if Harrison Lilloet is to be the high road to British Columbia."¹³ Mayne reported the state of gold-mining activity and its effect on the Indian tribes. He reported that the Indians faced starvation in the previous winter due to the fact that they became so intensely involved in either mining or hiring themselves out to miners, that they neglected to put in an adequate winter supply of stores.¹⁴ As a result, the Indians were forced to steal from the miners that passed through their territory.

In March 1861, Mayne, just prior to departing for England, released the map of the mining districts from the mouth of the Harrison River to Port Pemberton. It had been constructed from the survey information he had obtained during his travels on the mine inspection tour, and showed

the Lilloet route to Cayoosh, the route via the Fraser River to Pavillon, Thompson River and its branches, the Nicola and Lake Rivers.¹⁵ "It has been the most perfect map we have been issued," wrote The British Colonist; "and gives a correct idea of the arteries of the interior of British Columbia between the points indicated above."¹⁶

Richards had recently returned from an exploratory mission to the Pitt River with Captain Parsons and Colonel Moody aboard the Enterprise. Soon after ascending the river, he noticed that it began to resemble a lake and that some of the mountains had passes that appeared to run in the same direction as the lakes of the Harrison. Colonel Moody requested that the survey of the Fraser River be postponed in order to ascertain if the Pitt River contained a viable route to the gold fields. "If my time had been unlimited," wrote Richards; "I should have been glad to have followed the Lt. Governor's views, but as it is not so I did not feel myself justified in deserting the main stream for a tributary."¹⁷ Instead Richards left two boats to commence the Pitt while the others continued surveying in the Fraser as before.

On July 13, 1859, HMS Plumper anchored in Qualicum Bay. Richards and a party of Hudson's Bay Company officers and Indians crossed the island to Alberni while the ship remained behind surveying the Strait of Georgia.¹⁶ There was then no settlement at Alberni but the HBC men made the trip annually to trade in sea otter skins.¹⁸ The expedition ascended the Qualicum River for four or five miles then crossed a ridge about 600 to 800 feet in elevation, where they encountered a lake of six miles length, which Richards named Horne Lake in honour of one of the HBC men. The ridge was so steep that Richards concluded that though the route might be accessible to foot travellers, it could never be used as a roadway. Two years later Mayne

would be sent on another exploratory mission at Douglas' behest, to find a viable road route from Nanaimo to Alberni through a valley which Richards observed on this mission but did not pursue.¹⁹

On July 2, 1860, HMS Plumper left Nanaimo to commence the survey of the immense Jervis Inlet, running some forty miles inland. Mayne and Wood took a small party of four Indians from the head to strike the Lilloet River and find a communication route "from one of the great openings of the seaboard of British Columbia to the gold regions of the upper Fraser."²⁰ The principal object of the mission was to discover a practicable route by which supplies could be conveyed inland, "the want of which," surmised Richards; "and the enormous rate of freight are now the great drawback to the prosperity of the colony."²¹ In addition, Mayne was to report on the suitability of the land for future settlement, particularly the area between Chilcotin and Alexandria which the Hudson's Bay Company had reported as a "rich agricultural country." On July 4, Plumper left the inlet for Nanaimo, and then steamed to Esquimalt.

Mayne's journey commenced at Jervis Inlet, chosen because its navigability to its head made it accessible to the largest class of ships and thus limited Mayne's overland journey to Bridge River, his immediate goal, to just over fifty miles.²² After "a week's trial" Mayne had penetrated into the bush only twenty miles and "found the Valley streams so, cold rapid, and uncomfortable.... that at least during the summer months it would be impossible to use that road as a means of communication."²³ Indeed, after only a mile on the trail, Mayne's Indian travelling companions had told him it would not be possible to accomplish the object of his journey, but because of what he believed was their propensity to laziness, he ignored their warnings and pushed ahead.²⁴ Mayne came twelve miles down the inlet

and finding the rivers unfordable and sinking to his knees in the many swamps on the route, he "commenced a fresh start" using the Indians' information that they knew of a route from which they could cross from Jervis Inlet to Howe Sound, and from there to Port Pemberton.²⁵ The party returned to their camp site on the first night, but the next morning the Indians were reluctant to start again on the new leg of the journey. "Recourse to very strong expressions was found necessary," recalled Mayne; "and they were threatened with the undying wrath of Mr. Douglas, whose name always acts as a talisman with them."²⁶ After Mayne called them "woman-hearted," the natives consented to go on condition that they stopped at their village to replenish their supplies.

Two days later Mayne faced an obstacle of a wide ridge of steep mountains. After toiling to ascend the ridge, Mayne concluded that the pass was unsuitable for any practical purpose, a road being impossible. The next morning they retreated to the Squamish River and from there struck across to Lilloet Lake. "Lt. Mayne ultimately reached it safely," noted Gowlland; "but the doctor knocked up from cold was obliged to return from Howe Sound in a canoe and go to Victoria."²⁷ Mayne went on with the aid of an Indian chief he met at Elaawho and assisted him in the exploration of the river and reported that the soil in the area was "very rich."²⁸

The Indian village there had no trail to it from Howe Sound since the Indians always used the river, but Mayne surmised that since the ground was relatively level and in some parts was clear of trees, a road could easily be constructed.²⁹ From the summit of a spur which separated the Squamish and Cheakamus Rivers, the way was a gradual descent and thus ideally suited for road construction. The remainder of the journey was relatively easy in terms of geography, though the travellers suffered from the extremes

of the weather and mosquitoes, and Mayne observed that the land was very level, fertile and ripe for settlement, as was evidenced by the crops already cultivated by first settlers. Mayne reached Port Pemberton and, unwilling to wait for the steamer, hired a canoe and made for Port Douglas the following day. Mayne returned to Hope by steamer and from there rejoined HMS Plumper at Esquimalt.

In a memorandum to Richards dated October 15, Mayne reported that the expedition reached the head of Howe Sound, explored the Squamish River as far as the village of Elaawho, where he crossed it on the way to Port Pemberton.³⁰ There was a 22 mile discrepancy in the distances reported by Mayne and Wood from Elaawho, where they parted company due to the windiness of the river and differences in latitude.³¹ He reported two entrances to the Squamish River and that he believed both were of sufficient depth for stern-wheel steamers to proceed upstream for several miles. "I say 'I think,'" qualified Mayne;

for it is quite impossible to say precisely where a steamer can and cannot go in such until they are tried, for often the narrowest and worse looking places are the most easily passed; while in a place which appears to an explorer... perfectly clear, there is some snag or³² barrier which forms an effectual block to steam navigation.

The remainder of the report was a simple description of the physical geography of the land they passed and of the Indian tribes they encountered, and, most importantly, of the settlement of the area by newly arrived white settlers and gold miners.

In April 1861, Mayne was dispatched with Bamfield, the Indian Agent, and a Royal Marine, to find a route for a wagon road between Alberni and Nanaimo "thereby considerably bringing the communication of the Pacific ...some 6 or 7 days nearer New Westminster."³³ Bamfield engaged six Soamass Indian guides for the expedition, paying them four blankets, a bag of beans

and a tin of molasses apiece for their services.³⁴ Richards requested that the colonial treasury pick up the bill for the beans and the blankets, commenting that "if they succeed, I can't think the price very high."³⁵ After some initial difficulty in inducing the Indians to leave, Mayne embarked from the ship on April 29.

Mayne's purpose was twofold. First, Richards desired to increase the knowledge of the inland of Vancouver Island in general. Second, if the expedition were successful in finding a viable route to Nanaimo it would greatly facilitate inland travel.³⁶ The only route then known was across the ridge of the mountains (elevation 1700 feet) to Horne Lake where travellers strike east by canoe to the entrance of Qualicum River. Upon his return, Mayne would report his mission a success to Governor Douglas, having found no obstacles to a potential road that could not be easily overcome.

After one day of travelling, the Indians, who were unfamiliar with the country, declared the terrain impenetrable.³⁷ Mayne had difficulty in inducing the Indians to pursue the trail any further, having to rely on the moral support of an old hunter amongst them, and calling the rebels "woman-hearted." Finally, on the 30th, he had crossed the steep ridge which lay across the ridge of the Alberni Canal on a lower route than that travelled by Richards. Its ascent was gradual and showed no obstacle to the construction of a road. By May 1st, Mayne had reached an unknown lake and was unable to locate his major landmark, Mount Arrowsmith. The Indians had been in awe of the purported magical ability of Mayne's pocket compass to point the way to Nanaimo, and could not understand why it could not also find the mountain. Mayne was reluctant to admit to the possibility of being lost, so he satisfied them by explaining "that the compass, being

bound for Nanaimo, declined to trouble itself with any other consideration."³⁸ Mayne crossed the lake by raft and found a large river on the other side, through whose gorge a road could be built. Crossing a ridge nearby, they looked upon the Gulf (later Strait) of Georgia. After two more days of hiking over land which Mayne described as "admirably adapted" for settlement, the party arrived in Nanaimo on May 3, 1861. They remained in Nanaimo until May 7, when they returned to Alberni by a different route, having found much excellent farmland in the valley of the Nanoose River, and the whole country between the Qualicum River and Nanaimo.³⁹ Mayne's route is now the present-day highway between Nanaimo and Alberni.

On May 10, 1861, The British Colonist reported hopefully that HMS Hecate had struck rich veins of copper on Vancouver Island between Barclay Sound and Nanaimo.⁴⁰ Mayne and Bamfield had been sent to explore the interior and had reported finding "some fine prairie land pieces," and upon further examination had discovered that the country "abounded with like specimens."⁴¹ The paper declined to confirm the rumour of copper but upon further information from Bamfield, it proved to be untrue. However, Bamfield optimistically claimed that the land uncovered was "the best he had yet seen in the country."⁴² Mayne and Bamfield had succeeded in locating an appropriate route for a wagon road, causing one journalist to claim that "if the road is opened up, it will be the making of the island."⁴³

In 1862, Lieutenant Hankin and Dr. Wood were assigned to explore the interior of Vancouver Island from Kyoquot Inlet to the Nimpkish River. They embarked from "Actiss" in canoes on May 25.⁴⁴ As the expedition was undermanned, Hankin had sought the aid of the chief, Kar-ni-witt, to engage extra bearers. However, since Hankin was offering only three blankets and a shirt in payment during hunting season, he found only seven tribesmen

willing to accept the paltry sum.

Nor did Hankin's labour difficulties end there. The next day, the Indians, not understanding the need for an early start, slept in and the expedition was delayed for several hours. After six hours of paddling in bad weather on the Tasis River, the party camped for the night near an uninhabited Kyoquot village. The next morning, the Indians refused to budge until the weather improved and Hankin was reluctantly obliged to camp for the day. The next day the weather had not improved and the current was even stronger. To Hankin's despair, "the Indians began not to like this state of affairs, and talked about returning to Actiss."⁴⁵ By the afternoon, the Indians concluded that the river was too swollen to safely cross and decided to return home.

With nobody to carry their gear, Hankin and Woods had no option but to return with the Indians and await the return of the ship. Discouraged, Hankin feared that his entire mission would fail, and though the surveyors were received again with great hospitality, no replacements were forthcoming for a new journey.⁴⁶ Hankin languished in the village spending his time improving his knowledge of the Barclay Sound language and teaching games to the Indians. On the third day of enforced idleness, Hankin in desperation prevailed upon the young chief to use his influence on the tribe so that the ship could still be met at Fort Rupert on April 15. The young chief thought the payment too low to make it worth his tribesmens' while during the hunting season, and Hankin was obliged to offer two additional blankets apiece or else give up entirely all plans to go.

The chief procured six volunteers - two from the previous attempt - and the expedition was underway again the following morning. However,

the time for the second journey was extremely short and speed became of the utmost importance. The two veterans were sternly warned by Hankin that the expedition would not be turning back no matter what happened. Dr. Wood reluctantly abandoned his collecting gear - his sole reason for going - to lighten their carrying load, and thus would be unable to submit a proper geological report to the Governor. In his haste to depart, Hankin neglected to check his food supply until underway and discovered that it would soon run out.⁴⁷ They had failed to conserve food supplies at Actiss, and faced certain starvation if they failed in their second attempt.

When Hankin reached the waterfall that marked the river crossing point, the Indians refused to budge. A tribesman had drowned there a year ago and the Indians demanded that they travel further upstream to cross. After a two hour delay, Hankin managed to coax them into crossing together, holding a long pole. The rest of the journey passed without incident and they arrived safely at Fort Rupert in time to await the arrival of HMS Hecate. In memory of his travails, Hankin named the principal obstacles "Famine River" and "Indian Falls." Despite the setbacks the expedition was declared a success and Hankin and Woods submitted written reports to Richards detailing their findings.⁴⁸ On June 20, 1862, Richards forwarded their respective reports to the governor with a sketch map of the route followed from Kyoquot Inlet to Nimpkish River. Hankin's journey yielded no immediate practical results, as had the previous explorations of Lieutenant Mayne, but it did add to the steadily growing knowledge of the unknown country.

This chapter has examined the four major exploratory journeys undertaken by Richards and his officers from 1859 to 1862. As these were strictly extra-curricular duties as far as the hydrographic survey was

concerned, its overall effect on the exploration of the Northwest coast was slight. Richards authorized only four short-term sorties into the bush; the contribution of organised topographical and geological expeditions in the future would be far more significant for this purpose.

However, in the mid-nineteenth century, this type of exploration was uncommon since its purpose was exploration, not commerce. When a marketable commodity such as gold was discovered, the area would be thoroughly mapped and explored by itinerant prospectors, miners, and merchants, who rushed there to stake claims. But, civilians normally balked at undertaking potentially hazardous journeys to unknown areas where supplies could not be obtained, roads did not exist, and where one might be attacked by hostile Indians at any moment. For this purpose, the Royal Navy could be utilised to undergo overland journeys whose purpose was strictly informational, and for the benefit of the colony in general.

Douglas and the colonial government paid strict attention to the advice tendered by Richards and his officers. Every report submitted was another strike against the hidden secrets of the Northwest coast. With increased knowledge of the frontier, Douglas could plan for settlement or mineral exploitation; wood could be harvested, crops grown, and municipalities established.

NOTES

1. C.C. 1215. Richards to Douglas, 20 June 1862.
2. C.C. 1215. Addendum to Richards to Douglas, 20 June 1862. See also The British Colonist, Victoria, December 13, 1862.
3. Parizeau, "Hydrographic Survey of the Northwest Coast of British North America," op. cit., p. 17.
4. Mayne. ibid., pp. 105-106.
5. ibid., p. 110.
6. ibid., p. 114.
7. ibid., p. 121.
8. ibid., p. 122.
9. ibid., p. 123.
10. The Indians reported that this valley contained a trail through which Lytton could be reached in two days. Mayne noted that this trail became the high road from Lytton to Cariboo. See Mayne. ibid., p. 128.
11. ibid., pp. 129-130. While at Pavillon, Mayne "experienced the only trouble with Indians (he) had ever had while travelling." A halfbreed who was journeying with Mayne sold a bullock enroute for "200 or 300 dollars" and purchased a plentiful supply of whisky which was shared by Mayne's Indian companions. Fighting ensued amongst the Indians but fortunately St. Paul and one of his sons, possessing the only knives in the party, were sober and awake for trouble. Mayne possessed the expeditions' only pistol, so peace was preserved.
12. Mayne to Richards, 7 July 1859, "Report on a Journey in British Columbia," BC Geographical Papers, unpublished book of Admiralty Reports, undated, BCARS.
13. ibid., p. 7.
14. ibid., pp. 3-4.
15. The British Colonist, March 22, 1861.
16. idem.
17. Richards explained to Moody that he would have been unable to justify this action to the Hydrographic Office. A similar request to Mayne received the same answer due to lack of time, and that the Royal Engineers were also capable of carrying it out.
18. Mayne. op. cit., p. 167.
19. C.C. 1217, Richards to Mayne, Memorandum, 30 June 1860.
20. idem.
21. idem.
22. idem.
23. Gowlan. loc. cit., 2 July 1860.
24. Mayne. op. cit., p. 191.
25. Mayne. ibid., p. 193.
26. Mayne. ibid., p. 193.
27. Gowlan. loc. cit., 3 July 1860.
28. Mayne. op. cit., p. 198.
29. idem.
30. C.C. 1217. Mayne to Richards, 15 October 1860.
31. idem.
32. idem.
33. Gowlan. loc. cit., 29 April 1861.
34. C.C. 1215. Richards to Douglas, 25 April 1861.
35. idem. In addition, the hunting season had been poor and Mayne had to make arrangements for the provisioning of squaws while their husbands

were away. However, he scrupulously adhered to his rule that each Indian could claim provisions for one wife only.

36. C.C. 1215. Richards to Mayne, Memorandum, 28 April 1861.

37. Mayne. op. cit., p. 168.

38. Ibid., p. 171.

39. ibid., p. 172.

40. The British Colonist, May 10, 1861.

41. idem.

42. The British Colonist, May 11, 1861.

43. idem.

44. a Somass Indian village of 700 on Kaywhet Island, Esperanza Inlet. Fortunately, Hankin could speak the local dialect, since the tribe did not know the more commonly heard Chinook language.

45. C.C. 1215. Hankin to Richards, 17 June 1862. See also Walbran. op. cit., p. 226.

46. The Indians were "most civil and obliging" and voluntarily carried Hankin's traps from their canoe to the village, and as Hankin later recalled, the whole time that he lived within their midst, "although they had both the temptation and opportunity it is worthy of remark that not the smallest trifle was stolen from us." A meerscham pipe that Hankin misplaced was promptly returned to him.

47. idem. "...Even with the strictest economy, having 15 pounds of flour, a few beans, and a small quantity of preserved meat."

48. C.C. 1215. Hankin to Richards, 17 June 1862; C.C. 1215. Woods to Richards, 14 June 1862. See also Hankin Memoirs, BCARS.

CHAPTER THREE: THE GOLD RUSH, 1858 - 1859

In June 1858, at the height of the influx of miners to the Fraser Gold districts, Prevost wrote to Douglas that the presence of the Satellite there and the enforcement of the mining licences was "of the highest benefit to this colony in particular (BC), and to British Interests in general, as well as of paramount importance to the chartered rights of the Hudson's Bay Company."¹

The moral effect that her presence has produced here no doubt has prevented much of the riot and disorder and disregard of Law, that must be inevitably expected from the sudden infusion of a lawless and turbulent element, unless the desire thereto be restrained by the strong arm of power.²

HMS Satellite was employed to regulate the gold-mining traffic, a primary commercial activity in the life of the colony. The Boundary Commission and thereafter the Hydrographic surveyors would be called on in a number of occasions to intervene in commercial activities, primarily as a police force but also as a civil means to make the way possible for Douglas and the civilian population to better exploit their resources, and occasionally, as an arbiter in property disputes between miners or settlers and the coastal tribes.

On March 16, 1858, the surveying party set out again for San Juan. The first part of their mission, the location of the forty-ninth parallel at Point Roberts, having been completed, they set to work on the complete survey of disputed channels and islands. They remained at San Juan until May 16, when they returned to Esquimalt to find the Gold Rush in full swing. "We returned to Esquimalt on the 16th of May to find that during our absence that most infectious of maladies - a gold fever - had broken out," recalled Mayne;

the value of land had risen immensely... and all the available Government lands had been snapped up by far-seeing speculators when the first drops of the golden shower descended. Expectation was on every face which before had been placid, even stolid... Now,

with vessels arriving and leaving constantly, with thousands pouring into the port, and sensation news from the Fraser daily, a new mind seemed to have taken possession of Victoria.³

The climax occurred in July 1858 when the steamers Orizoba and Cortez arrived from San Francisco carrying 2,800 people bound for the gold fields of the Fraser. The city could not absorb the large number of new immigrants; a tent city was rapidly erected outside the city to cope with the overflow.⁴

The survey was interrupted by a potentially explosive situation in the Fraser River district caused by the large influx of migrant American gold-seekers. On May 12, 1858, Douglas requested that Rear-Admiral Baynes, Commander-in-Chief of HM Forces in the Pacific Station, provide "a sufficient force to aid and assist in maintaining the Queen's Authority until further instructions are received from England."⁵ Douglas feared a repeat of the Oregon episode, whereby large numbers of American immigrants poured into disputed British territory and clamoured for union with the United States:

Those persons are crowding into the British possessions with reckless precipitation and I have pointed out the danger in forcible terms of permitting the country to be occupied by a Foreign population whose sympathies are decidedly Anti-British and who will never cordially submit to British Rule or possess the loyal feelings of British subjects.⁶

Although the problem seemed particularly acute to Douglas with "the influx in the course of a few months of twenty or thirty thousand people", he was nevertheless reluctant to call on the nearest naval force, that of the British Boundary Commission:

The Satellite and the Plumper are both at present employed on this part of the Coast, but being on special service I do not feel at liberty to tax them too severely for assistance, though I am convinced that both Captain Prevost and Captain Richards will afford me every assistance in their power.⁷

Douglas instead noted that "I therefore think it highly necessary that the Naval force in this quarter should be largely reinforced."⁸ Douglas' wishful thinking was not to be realised, and he would be forced in due

time to call upon the services of a reluctant Boundary Commission.

In fact, the Gold Rush would prove so alluring for the underpaid and overworked crew of the Satellite, that Prevost would be compelled to request extra pay in order to meet their vastly increased living expenses and preserve them from desertion. "I have already lost upwards of twenty men," lamented Prevost; "and I cannot be blind to the fact that more will desert whenever a favourable opportunity may occur, unless they have mightier inducements to detain them than exist at present."⁹ A month later, Captain Richards of the Plumper wrote to Douglas requesting that any decision taken in this regard also be extended to his own ship which suffered the same problem.¹⁰ Douglas responded by authorising the payment of an allowance equal to their naval pay out of local revenue.¹¹ The rate of desertion was stemmed for the time being.

Douglas issued a proclamation respecting the Gold Rush "in consequence of reported violations of the British Territory, by Foreign Boats and Vessels, and of infringements of the chartered rights of the Hudson's Bay Company." It warned "all persons that such acts are contrary to the law and that whosoever takes part in them will be subjected to the penalties which the law denounces against such offenders."¹² Since no military force was available to the governor, he called instead upon the services of HMS Satellite to enforce the law. Douglas proposed to leave Victoria, the colonial seat of government, for a short trip to the "Falls of Frazer's River" "for the purpose of inquiring into the state of the country and ascertaining as far as can be effected from personal observation, the character of the navigation to that point."¹³ He suggested - read ordered - that Satellite accompany him on that journey, and proceed at the same time to Point Roberts "as an imposing display of force" which would "have

a powerful moral effect and will prevent much future evil."¹⁴ Douglas was only their superior in theory, holding the honourary rank of Rear-Admiral, so Prevost was somewhat hesitant when he said:

I shall be most ready to co-operate with you in any way and to afford you any assistance that it may be within the limits of my power to grant, but as your Excellency is aware, the Satellite is employed on a particular and special service which has claims upon her, prior to all others, and therefore the assistance I can at present render is very limited.¹⁵

Nevertheless, Prevost assented to Douglas' request and proposed to quit his present anchorage the next morning and proceed immediately to Point Roberts for the proposed "show of force."

On May 21, 1858, Douglas again wrote to Prevost from the Hudson's Bay Company Steamer Otter, then lying off Point Roberts, to request in the Queen's name

...that a detachment sufficiently strong to maintain if requisite by force of arms the authority of the laws, may be furnished from Her Majesty's Ship Satellite... and directed to proceed without delay to Fort Langley in tow of the Hudson's Bay Company Propellor Otter.¹⁶

To allay Prevost's suspicions, Douglas enclosed a copy of his dispatch to Rear-Admiral Baynes, C-in-C Pacific Station, outlining "the motives which have induced me to make this requisition on you."¹⁷ While again reminding Douglas of Satellite's "special duties," Prevost obediently dispatched a launch to Fort Langley composed of Lieutenant Gooch and five Royal Marines.¹⁸ Prevost sternly informed Douglas that in a fortnight he would have return to Vancouver Island. On June 9, Prevost informed Douglas that since Satellite was not required for the survey duty until the end of June, then he would be for that time available for police action in the Gold Rush crisis.¹⁹

Douglas accordingly ordered Satellite to depart Esquimalt and go to the Fraser River district to enforce the proclamation of May 8, 1858,

and to assist the Officer of Customs "should he experience any opposition to the discharge of his duties."²⁰ In response to Prevost's request for specific instructions "to prevent any illegality of action on the part of those under (my) command", Douglas fully empowered him to take any measures necessary to enforce the proclamation on the miners:

...under such authority you will be justified in seizing and sending in for condemnation, any Foreign Vessels that may be found in Frazer's River without proper papers and documents.²¹

Douglas signified his desire that all vessels "not being duly provided with a sufferance from the Officer of Customs at Victoria, and a license from the Agent of the Hudson's Bay Company" should be dealt with in accordance with the instructions outlined above.²²

The precarious position of the colonial government caused by the influx of American gold-seekers necessitated a request for an armed force capable of suppressing any disturbance. Whitehall declined Douglas' request in this regard, but, as luck would have it, the British Land Boundary Commission under Major Hawkins, Royal Engineers, arrived in Victoria aboard HMS Havannah on July 12, 1858.²³ Plumper conveyed the Land Commission to Semiahmoo Bay where they were to acquaint themselves with the task at hand, and meet the members of the US Commission. The respective Land Commissions possessed a mandate to carry out the survey from Semiahmoo Bay to the Rocky Mountains. This task completed, HMS Plumper returned to Esquimalt just in time to be called out by Douglas to quell an "imminent disturbance" in Victoria. As Mayne recalled:

Things had for some time been critical there, and it had been thought more than once that it would be necessary for the Governor to make an exhibition of force at least, that should effectually tame the more unruly of the strange,²⁴ heterogeneous population that had placed themselves under his rule.

In a haste, steam was got up, the Royal Engineers were embarked, and the

Plumper made for Victoria, making the grim preparations for any eventuality:

Upon the quarter-deck, small-arm companies were having ammunition served out to them; forward, the ship's blacksmith was casting bullets by the score; while our doctor was spreading out his cold, shining instruments upon the wardroom table, making the arrangements for the most painful surgical operations with that grave, business sang-froid, which is no doubt caused by a benevolent desire to show²⁵ the fighting men what is in the opposite scale to honour and glory.

The "Honour and glory", opposite scale or otherwise, failed to materialise; Captain Richards anchored Plumper outside Victoria harbour, marched his armed company to Fort Square, only to discover that the "disturbance" had ceased and the Governor had gone to bed.²⁶ The incident had been caused by American gold-seekers who prevented the small sized and inadequately trained municipal police from arresting a drunken compatriot. An escort provided by Plumper imbued the timid police with sufficient fortitude to apprehend the offending prospector. "And so ended the only difficulty which has ever threatened the peace of Victoria from its white population." wrote Mayne.²⁷

Meanwhile, the Water Boundary Commission was again distracted by difficulties with American immigrants. On January 10, 1859, Richards received information of another potentially dangerous outbreak of lawlessness at Fort Yale and Hill's Bar. On Christmas Day, 1858, at Fort Yale, a black man named Dixon had pressed charges against two white men who had assaulted him. The two had been in the employ of a notorious Californian gang leader at Hill's Bar named Ned McGowan. At McGowan's direction, Perrier, the Hill's Bar Justice of the Peace, sent a constable to retrieve Dixon from the protective custody of Whannell, Justice at Fort Yale, in order that he might "hear the charges himself."²⁸ Fearing a lynching for Dixon, Whannel countered by ordering Perrier's constable to arrest Dixon's assailants, and when he refused, gaoled him. At McGowan's behest, Perrier issued a

warrant for the arrest of Whannel , and deputised McGowan and his men for this purpose. Whannel was brought back to Hill's Bar by force and duly fined in Perrier's "court." Upon release, he submitted a full report detailing the outrages committed against him to Douglas, who accordingly called out all available military and naval forces for this most recent American threat to British civil authority.

Colonel Moody, RE, and Judge Matthew Baillie Begbie, "the hanging judge", were dispatched to Fort Yale aboard Enterprise accompanied by Captain Grant and twenty-two Royal Engineers. Moody landed at Hope to await reinforcements. HMS Plumper, with a small contingent of bluejackets and marines drawn from Satellite, was dispatched to Fort Langley. As there was an insufficient depth of water to accommodate Plumper from Langley to Hope, a canoe party under Lieutenant Mayne and guided by local Indians, was dispatched to reinforce Colonel Moody. Plumper awaited further orders at Langley, while Moody entered Hill's Bar unescorted to deal with the rebellious miners. An incident ensued whereby McGowan publicly beat Dr. Fifer; Moody, realising the danger of the situation, sent Mayne to Plumper for reinforcements.²⁹ Happily, the added troops proved unnecessary as the whole incident ended peacefully with the volatile Californians raising three hearty cheers for Queen Victoria. Ironically, Mayne warmly recalled a champagne luncheon with McGowan and his men: "I, speaking as I found them, can only say that, all things considered, I have rarely lunched with a better-spoken, pleasanter party."³⁰

Following the survey of the Fraser River in 1859, HMS Plumper was sent to investigate the possibilities of Burrard Inlet as an outer harbour to New Westminster, the new capital of British Columbia. With the deterioration of events at San Juan, the priority in this survey, Richards

first visit to the inlet, was information for military and naval defence of B.C. aside from the commercial considerations.³¹ Within a week, the U.S. Army would be landed on the disputed islands. Four Days after his arrival, Richards was informed by a local Indian that coal existed in the Inlet, and he immediately dispatched Brockton, the senior engineer, to investigate. On June 12, 1859, Brockton returned and reported an extensive vein on the south side of the harbour, about a mile and a half from First Narrows, near the foot of present day Bute Street.

Richards was so excited by the discovery that he visited the site himself, knowing full well that the discovery of the valuable resource at the very back door of the colony would be crucial to national defence at that difficult time.³² A working party was dispatched to secure a supply of the new found coal for Brockton to test in the ship's galley and furnaces. Charles Wood, the Ship's surgeon, was sent to compile a geological report detailing the formation and amount of the coal seam. Due to the tidal flood, Woods was restricted in his examination but he reported "that sufficient evidences were thus far obtained as to prove the presence of the true coal measures, and the probability of an extensive coal deposit."³³ He likened the coal to English Newcastle since "it burns freely in a common furnace and produces little smoke."³⁴

Richards sent samples of the coal to Colonel Moody and Governor Douglas in the ship's pinnace. As he wrote:

I fully concur with Dr. Wood in the belief that extensive coal measures exist here not only in the single position already examined, but generally throughout this capacious inlet, and as I write I receive undeniable evidences of their existence in the outer harbour.³⁵

However, by the time of Richards' writing, the colonial government was contending with the San Juan crisis, and no plans were made to exploit the deposits. In August, two civilians, Robert Burnaby and Walter Moberly,

were recently released from government employ at New Westminster and decided to prospect the immediate area. Burnaby was formerly the private secretary to Colonel Moody and appears to have undertaken the mining with the approval of Douglas. Later, when confronted by flooding, Burnaby wrote to Douglas to request pumping equipment, picks, and a government loan to continue operations.³⁶

The control of mineral exploitation was an issue of utmost strategic importance. In the case of gold, the central issue was the assertion of national sovereignty over an unorganised territory. In order to control the American mining population and thus prevent a repeat of the Oregon episode, Douglas asserted British control over the Fraser district by the imposition of mining fees and by the rigorous prosecution and suppression of lawlessness. The Water Boundary Commission played the central role as Douglas' arm of the law in the new crown colony of British Columbia.

The discovery of coal at Burrard Inlet was no less strategically important to the maintenance of British law and order on the mining frontier. In light of the deteriorating political situation between Great Britain and the United States in regards to the San Juan Islands, the discovery of coal would greatly strengthen naval supremacy on the Northwest coast in the event of war or civil disorder. Safe navigation of the disputed archipelago and the gold mining districts depended on speed and manoeuvrability, and these were dependent upon coal.

NOTES

1. C.C. 1219. Prevost to Douglas, 20 June 1858.
2. idem.
3. Flora Hamilton Burns, "The Exploits of Lieut. Mayne, R.N.," The Beaver, Autumn 1958, p. 14. While engaged in setting the 49th parallel for the boundary survey, officers of HMS Plumper arrested an American named Macauley for selling illicit liquor in the surveying camps. He was conveyed to Esquimalt for trial aboard USS Active, where he revealed quantities of gold dust that he had received in trade with the Indians. The crew returned to San Francisco the following winter and spread the news of Macauley's find and the rush to the Fraser River district was on. See George Nicholson, "Little Ships did Big Job when B.C. Coast was 'New,'" Victoria Daily Colonist, 16 February 1958.
4. Burns. ibid., p. 15.
5. Douglas to Rear-Admiral Baynes, May 12, 1858, CO 305/9.
6. Idem.
7. Idem.
8. Idem.
9. Prevost to Douglas, June 21, 1858, Idem.
10. Richards to Douglas, June 1858, Idem.
11. Douglas to Prevost, July 5, 1858, Idem.
12. Douglas to Prevost, May 15, 1858, Idem.
13. Idem.
14. Idem.
15. Prevost to Douglas, May 18, 1858, Idem.
16. Douglas to Prevost, May 21, 1858, Idem.
17. Idem.
18. Prevost to Douglas, May 22, 1858, Idem.
19. Prevost to Douglas, June 9, 1858, Idem.
20. Douglas to Prevost, June 14, 1858, Idem.
21. Douglas to Prevost, June 15, 1858, Idem.
22. Idem.
23. Ibid., p. 51.
24. Ibid., p. 52.
25. Ibid., p. 53.
26. Idem. See also George F.G. Stanley (ed.). Mapping the Frontier: Charles Wilson's Diary of the Survey of the 49th Parallel, 1858-1862, while Secretary of the British Boundary Commission. (Toronto; Macmillan of Canada, 1970), p. 27.
27. Ibid., p. 54.
28. AKrigg. op. cit., p. 146.
29. Ibid., p.
30. Mayne. op. cit., p. 70.
31. The Province, April 4, 1936.
32. Idem.
33. idem.
34. idem.; Wood to Richards, June 14, 1859, Pac. Stn. Rec.
35. idem.; Richards to Baynes, June 24, 1859, Pac. Stn. Rec.
36. idem.

THE SAN JUAN WATER BOUNDARY DISPUTE, 1859

The San Juan Water Boundary dispute was the result of an inability of Captain James Prevost and Archibald Campbell to agree on the interpretation of the 1846 Oregon Treaty. Prevost insisted on strict adherence to the text of the agreement; Campbell sought the true intentions of the treaty drafters rather than the strict letter of the law.¹

To support his case, Campbell produced the despatches of Louis B. McLane, US Minister to Great Britain at the time of the Oregon Treaty, and Senator Benton's speech of May 18, 1846; both documents were intended to prove that the US delegation had sought Haro Strait as the water boundary. He asserted that the line described by Lord Aberdeen could not possibly be "tortured" into running through Rosario Strait; nor could he hide the fact that the primary motive for the adoption of the forty-ninth parallel was to preserve Vancouver Island for Britain.² British diplomats ought to have precluded any possibility of doubt in the interpretation of the document; if this occurred - as it clearly had - then it was the problem of the British Government, not his.³ Campbell charged that the British Government deliberately diminished the importance of the San Juan Archipelago in dealings with the United States, while fully cognizant of its economic and strategic value. Finally, Campbell asserted that Haro Strait was the obvious choice for the main channel; it was the shortest and safest route, possessed the widest breadth, and had been documented as such on Spanish Admiralty charts of the eighteenth century, as well as the 1845 US Survey chart by Captain Wilkes, USN.⁴

Prevost, on the other hand, insisted upon a strict application of the terms of the Oregon Treaty. Rosario Strait, he argued, was the direct channel of communication between Georgia and Juan de Fuca Straits, was immediately adjacent to the continent, and satisfies the requirement that

the channel run in a "southerly" direction. Furthermore, Rosario Strait was thought to be more navigable than Haro, and did not possess its strong and erratic currents. Finally, Haro Strait ran, in part, in a westerly - not southerly - direction, a scenario not provided for under the terms of the treaty.⁵ Prevost rejected Campbell's claim that the San Juan Islands were mere "appendages" of the continent: "I reply that in the Treaty I find two fixed points named, the Continent on one hand, and Vancouver Island on the other."⁶

In his despatch to the Admiralty, Prevost related that Campbell was about to proceed to Washington, and did not intend to return until May, 1858.⁷ His departure was purportedly on the matter of Congressional allocation of funds for the US Commission, but as Prevost noted, since the British Commission had not been informed of his anticipated departure, it was more likely to receive further instructions on the border question. Prevost viewed the ability of Campbell to communicate directly with his government and enlist its support as a profound advantage to the US Commission: "I am so far removed from my government as to be unable to answer questions by letter, excepting perhaps, at an interval of nearly six months."⁸ Prevost communicated his intention to survey the whole of the Haro Archipelago in the coming surveying season.

The following year, Douglas took steps to reassert the British claim to San Juan Island. On January 17, 1859, he despatched his report on San Juan to Lord Lytton, the Colonial Secretary. In it, he confirmed that "my opinion on the matter remains unaltered" and expressed his intention to assert that "the islands of San Juan, Lopez, and Orcas... did of right belong to Her Majesty the Queen, and come within the jurisdiction of Vancouver's Island."⁹ In a despatch to the Colonial Office dated February

19, Douglas communicated the more practical steps he proposed to use to reassert British sovereignty, specifically, the eviction of American "squatters" from the island.¹⁰ The arrival of HM Ships Tribune and Pylades at Esquimalt from the China Station was a great source of comfort to Douglas, particularly with the addition of 150 marines "in case of emergency" to forces in the area.¹¹

In the meantime, Plumper returned from Fort Langley to Hope to assist the government in the selection of an appropriate capital for British Columbia.¹² New Westminster, or "Queenborough" as Colonel Moody preferred to call it, was selected over Fort Langley, for strategic reasons. Plumper returned to Victoria in March, 1859, to defuse problems with local Indians and to complete the survey of Victoria Harbour.¹³ The survey was complete on March 31, and Plumper made for the Fraser River district on April 10. Richards received onboard Marines from Tribune, and twenty Royal Engineers from Satellite, in order to convey them to the military headquarters at New Westminster.¹⁵

"The Pig War" began for the Water Boundary Commission on July 29, 1859, when US Troops were landed on the shores of Griffin Bay, San Juan Island. The Resident Stipendiary Magistrate for San Juan, John de Courcy, was informed in the early afternoon and made haste to the American encampment to demand an explanation. Captain Pickett, the officer in charge of US troops, refused to recognise De Courcy's right to ask such questions, but added that "it was generally known by everyone about... that he occupied the island by order of his government."¹⁶ "I then informed him that his acts were illegal, that he was trespassing, and that it was my duty to warn him off the premises and Island," related De Courcy. Pickett responded by introducing De Courcy to Mr. Crosby, the newly appointed "Resident

Stipendiary Magistrate" for San Juan County, Washington Territory. "I declined entering into any discussion with this gentleman," fumed De Courcy. "There the official conversation and incident was brought to an end, by mutual consent."¹⁷ De Courcy retreated for the time being, and immediately despatched a report to the Colonial Secretary in Victoria, W.A.G. Young, containing the details of the incident.

The incident that instigated the American occupation was relatively trivial, but precipitated an international incident that nearly led to war and would last thirteen years before finally being resolved. A pig belonging to the Hudson's Bay Company was shot by an American farmer, Lyman Cutler, on June 15, 1859. The provocation for Cutler had been great, as the offending pig had made repeated forays into his potato patch and his complaints had gone unheeded by the Hudson's Bay Company employees.¹⁸ Nevertheless, Cutler realised his error and immediately sought to recompense the owners for their loss. Hudson's Bay Company officials, perhaps sensing an opportunity to rid themselves once and for all of their unwelcome American rivals on the island, declined to accept any recompensation of less than one hundred dollars. Cutler understandably declined, and had been informed that he would be taken to Victoria to stand trial.¹⁹ Exaggerated rumours subsequently began circulating among the American settlers on San Juan of British mistreatment of Cutler. In response, they petitioned the American military authorities in Washington for assistance.²⁰ Wrongly believing that the Royal Navy was to arrest and convey American citizens to gaol in Victoria, the US military commander at Fort Bellingham, Brigadier-General William S. Hearney, ordered a sixty man detachment to San Juan on July 18. The US troops were ordered to oppose, by force if necessary, any further British encroachments to American sovereignty on the Island.

Upon receiving news of the American occupation, Douglas ordered Prevost to locate the US Boundary Commissioner, Archibald Campbell, and discern if he knew of the American decision to invade beforehand.²¹ On August 1, 1859, Douglas corresponded with the Colonial Secretary, Lord Lytton, advising him of his actions. He ordered Captain De Courcy, the senior naval officer in the area to make arrangements "for a powerful vessel of war to be dispatched immediately to San Juan."²² He ordered De Courcy "to prevent the landing of further armed parties of United States soldiers for purposes of occupation as well as the erection of fortifications of any description of the party already on the island."²³ HMS Tribune was dispatched to the Island immediately. Douglas differed with De Courcy and Richards on proposals for action:

They extended a very strong opinion on the proposed employment of Her Majesty's forces against the troops of the United States and suggested milder measures should be first tried, professing, however, their readiness to receive my instructions at the same time entering their protest against any forcible demonstration.²⁴

Douglas modified his proposal in view of the captains' objections to taking any measures that might provoke an incident. HMS Plumper, meanwhile, had been ordered to New Westminster to convey the detachment of marines to San Juan; HMS Pylades was also dispatched to augment the fleet already lying off Griffin Bay.²⁵ In his communication with Lytton, Douglas made known his intention to withdraw all British subjects from the island in protest against the illegal occupation. Finally, Douglas hastened to add that the colonial assembly in Victoria had met to discuss the matter at hand and registered their "complete approval" for the his actions.

On the same day that Douglas wrote to Lytton, Prevost reported his actions regarding the location of Archibald Campbell. After receiving Douglas' urgent despatch at 2:30 am the day before, Prevost weighed anchor

and proceeded to the headquarters of the US Commission at Semiahmoo Bay. Upon arrival, Prevost was informed that Campbell had been absent for a fortnight, ostensibly on a hunting expedition, and had left no instructions as to his whereabouts.²⁶ Prevost left a note for Campbell, entreating him to exercise his authority to help prevent a "collision." Satellite then proceeded to Bellingham Bay in another fruitless effort to find the Commissioner, and when this also failed to produce any results, proceeded to join the remainder of the fleet lying off Griffin Bay.

After consulting with the senior naval officer present, Captain Geoffrey Phipps Hornby, Prevost went ashore to seek information at the American encampment, which was then being moved to the other side of the island.²⁷ Captain Pickett informed Prevost that Campbell had visited there the previous evening aboard the steam vessel Shubrick, but had left bound northward and left no information as to his whereabouts. Concluding that it would be fruitless to pursue the US Commissioner any further, Prevost revealed to Pickett the ostensible purpose of his mission, and that he hoped, somehow, to "avert a collision."²⁸ Pickett responded that he was glad they were able to converse on such "equally frank" terms, and reminded Prevost that "he was merely a subordinate carrying out the orders of his superior, and that he was there for the purpose of affording protection to the citizens of the United States, and of enabling the civil power to carry out the law."²⁹ However, Pickett added that "it was the most sincere desire of both the Magistrate and himself to conduct matters as to avoid any misunderstanding, that the territory belonged to the United States, and therefore they were perfectly justified in their acts with regard to it."³⁰ He assured Prevost that "the strictest orders had been given to protect the property of settlers on the island, British or otherwise,"

and related that a prisoner had already been arrested and fined for shooting a deer that belonged to the Hudson's Bay Company. Prevost was unimpressed and unintimidated by Pickett's candour; as he later wrote to Douglas:

I told him that I did not admit that the territory belonged to the United States, that I claimed it on the part of her Britannic Majesty and as the line of demarcation was still in abeyance, the act of violence committed by landing an armed force without any communication with me, or with British authorities, was as discourteous as it was unjustifiable.³¹

Prevost sternly warned that Great Britain might also be forced by circumstances to occupy the islands as the Americans had done, and that a collision was imminent if the Americans in any way interfered with "the persons or property of British Subjects." Pickett replied that "any action of that nature would take place under his most solemn protest," but added wryly, "that the island was quite large enough for both."³² In concluding the interview, Prevost assured Pickett that he, and Magistrate De Courcy, would do their utmost to avoid any scenarios that could possibly lead to a "collision." HMS Satellite weighed anchor from San Juan early afternoon that day and made for Victoria to relay the despatches to Douglas without delay.

On August 2, 1859, Douglas issued a proclamation of protest to the American authorities against the occupation of San Juan Island. On the same day he ordered Hornby to land "a body of British Troops" on the Island and arrange a joint military occupation at his own discretion.³³ If agreed to and reciprocated by the American authorities, Douglas expressed his willingness to permit the withdrawal of the British civil authority, represented by Magistrate De Courcy. In issuing his instructions to Hornby, Douglas worded it in such a way that the orders would be carried out at Hornby's discretion, thus shifting the responsibility for events completely to him. This subtle attempt by Douglas to cover himself was probably crucial

to preventing a "collision," as it gave Hornby complete freedom of action, and, more importantly, of restraint. On hearing of Douglas' bellicose proposal for action, Hornby is widely reputed to have replied, "Tut, tut. No, no. The damn fools !" ³⁴ Hornby distrusted Douglas, and resolved to disregard his instructions where his position enabled him to do so and to follow a course of strict prudence, true to his conviction that "San Juan Island was no more our island than it is theirs."

Meanwhile, Hornby was having difficulties with Captain Pickett at San Juan, who had refused the British offer of mutual withdrawal of civil authorities, and joint military occupation of the island, on grounds that he did not possess the requisite authority to enact such terms. Pickett protested that he could not imagine any circumstance whereby such a "military interference" would be necessary, and, with increasing desperation, requested that things stayed as they were for the time being. ³⁵ "After his refusal I held myself to be free to act in any way that might be desirable or convenient, as regarded the landing of troops," reported Hornby to Douglas. ³⁶

Hornby nevertheless elected to disregard Douglas' instructions for the following reasons: his overwhelmingly superior force could easily subdue the Americans if ever required to do so; with the troops still aboard ship, he would have greater mobility and the ability to choose when and where to land; the tactical disadvantage of having troops in an exposed central position; and, the folly of copying the illegal actions of the US authorities. ³⁷ Furthermore, the crisis had risen considerably in proportion with the arrival at San Juan of USS Massachusetts, with 120 US troops aboard, on August 1, 1859. HMS Plumper was ordered to Victoria and placed at Douglas' disposal for communications with the US authorities at Olympia:

I have sent the Plumper to you with this letter. - Captain Prevost will receive your directions for his further proceedings, and is

available to proceed to Olympia to communicate with General Hearney if you require her; if not I should be glad of her presence, as well as that of Satellite here, - The latter has again started for Semiahmoo, Captain Prevost to find Mr. Campbell.³⁸

Meanwhile, Prevost's search for Campbell had finally elicited a written response from the ubiquitous Commissioner. "As the supervision of the movements and operations of the military forces of the United States forms no part of the duties of the Joint Commission for carrying into effect the 1st Article of the Treaty of June 15, 1846," replied Campbell to Prevost; "I cannot recognise your pretensions to catechise me thereupon, and therefore I decline to return you either a positive or a negative answer to your queries."³⁹ Prevost fired back an immediate response, charging that the Commissioner's letter "evades the principle question at issue, and exhibits no desire to reciprocate with me in a friendly intercourse."⁴⁰ On August 5, 1859, Prevost reported his dealings with the US Commissioner to Douglas, and enclosed copies of his correspondence:

These documents will shew your Excellency how hopeless it is to expect any Co-operation on the part of Mr. Campbell in any action that may be undertaken for the purpose of preventing any interruption to the amicable relations at present subsisting between the Governments of Great Britain and the United States. Mr. Campbell evades the direct questions I put to him, by angry and discourteous reflections upon the fact of those questions having been put at all.⁴¹

Furthermore, Prevost communicated that he quit Semiahmoo Bay and made again for Griffin Bay, San Juan Island, to receive instructions from Captain Hornby, and made for Esquimalt again that very afternoon. In concluding his report, Prevost recounted to Douglas that the American force had been augmented by the US Steam Vessel Active and the Federal Revenue Cruiser Jefferson Davis, who were both presently lying off Griffin Bay.

A War scare now loomed. In his dispatch to the Colonial Secretary, Lord Lytton, Douglas recounted rumours that a large body of troops had been armed in Washington and Oregon and were proceeding northwards "for

the protection of their flag."⁴² Nor did the assertion of American civil authority in San Juan abate. Magistrate De Courcy returned to San Juan aboard the mail contract vessel Julia, when he was refused entry on grounds that he had not cleared US Customs at Fort Townshend.⁴³ As one of Satellite's boats was alongside Julia at the time, De Courcy asked to be taken to Captain Prevost for consultation. "I could not help feeling," De Courcy later told W. A. Young, Colonial Secretary at Victoria; "that my official position was for the time most undignified if not a ridiculous one."⁴⁴ While aboard Satellite, the US Customs officer summoned De Courcy to offer to make an exception in his case and allow him to land "notwithstanding the very stringent orders he had lately received on this point from the federal authority at Fort Townshend."⁴⁵ De Courcy graciously thanked the Customs agent for his courtesy, but declined his offer on grounds that "I did not recognise or acknowledge his authority to allow or disallow the landing in question."⁴⁶ To emphasise his point, De Courcy accordingly landed with the aid of Satellite's boat, unhindered by American authorities, and resumed British civil authority on the disputed islands. Douglas related the incident to the Duke of Newcastle in his despatch to the Colonial Office of October 26, and added that US Customs authority had been extended to all islands east of Haro Strait, with all vessels being required to report to Fort Townshend or be liable to confiscation.

Despite the clear violation of British territorial sovereignty, Baynes continued to pursue a policy of restraint locally, the wisdom of which was later confirmed in instructions from the Foreign Office. Douglas' instructions notwithstanding, the naval officers realised the folly of going to war with the Americans over San Juan, and the dangerousness of their situation. Within a week of the initial invasion, US Forces on the

Island numbered 400 men and 6 Artillery pieces, and 400 additional troops were readily available from nearby Fort Steilacoom.⁴⁷ The British, while possessing overwhelming naval superiority, had insufficient military forces to call on in the event of an emergency. Furthermore, the isolation of Vancouver Island from the rest of the Empire, the dependence of the colony on American services such as the mails or ship repairs, and the large numbers of American citizens resident in the area, precluded any hostile actions on the part of the British and dictated a policy of strict prudence.

The Foreign Office nevertheless recommended that naval forces on the Pacific Station be strengthened significantly.⁴⁸ HMS Ganges, Bayne's Flagship, was to be retained on station until ordered to England; HM Ships Clio and Topaze were dispatched to Vancouver Island to augment the five warships already there. The increased naval strength proved unnecessary, for the American Secretary of State assured the British Minister in Washington, Lord Lyons, of the peaceful intentions of the American Government.⁴⁹ General Harney would later be recalled for his perfidy and replaced by the more accommodating General Winfield Scott, who had been authorised by executive order to permit the joint military occupation of the disputed island.

While the controversy over the Island degenerated into stalemate, HMS Plumper busied itself with other matters. On August 5, 1858, divers from HMS Ganges examined Plumper at Griffin Bay and discovered extensive hull damage.⁵⁰ As soon as surveying work was finished for the year, it was determined that Plumper would make for the ship repair facility at San Francisco. On August 19, Douglas dispatched Plumper to the aid of settlers in Burrard Inlet, purportedly the victims of Indian kidnappers. The reports were later found to be untrue. Plumper resumed its surveying

in the inner channels between Nanaimo and Victoria, and in laying down bouys at the mouth of Fraser River.⁵¹ On September 30, Plumper conveyed Admiral Baynes to Nanaimo and Burrard Inlet, and resumed surveying operations until October 28, when they laid in at Esquimalt for the winter. Upon Richard's recommendation to the Admiralty that year, Esquimalt would later be adopted as the permanent headquarters and Naval Yard of the Pacific Station.⁵² HMS Plumper sailed for San Francisco on February 10, 1860, and was not to return until April.

HMS Satellite's last official action in the San Juan border dispute was to convey a detachment of Royal Marines to the Island to commence the joint military occupation. Prevost left Esquimalt on March 21, 1860, and landed 4 officers and 83 marines on the uninhabited north end of San Juan.⁵³ Admiral Baynes issued strict orders to the commanding officer, Captain Bazelgette, that the marine detachment was to deal only with the discipline of British subjects, and to leave all American citizens to Captain Hunt of the US Army (Pickett had been temporarily replaced).⁵⁴ In a show of good faith, Baynes sent a copy to Hunt so that there might be no misunderstanding of British intentions.

The landing of the British troops was the Water Boundary Commission's last official act in the dispute, though it was not to be the end of the matter for Prevost. The occupation of San Juan was to drag on for twelve years until American and British diplomats finally agreed to submit the matter to arbitration by Kaiser Wilhelm of Prussia. Douglas Channel was abandoned by the British in order to bring the Americans to the bargaining table; thus, the German tribunal had simply to choose between Rosario and Haro Straits. Prevost was dispatched to Berlin in a vain attempt to salvage the British case, now thoroughly discredited by the survey evidence that

Prevost's own Boundary Commission had provided. The superior navigability of Haro Strait and its natural point of departure from the continent won the day in court and the San Juan Archipelago was subsequently awarded to the United States by the Treaty of Washington, 1871.

Great Britain may have, in a sense, lost the "war", but she did not lose the peace.⁵⁵ The prudence of the Royal Navy prevented war from breaking out, stabilised the frontier, and helped create the necessary conditions for safe travel and settlement in the western colonies. The security of the British Empire as a whole required forbearance in local matters, and in achieving this an omniscient Whitehall had to prevail over colonial interests.⁵⁶

NOTES

1. McCabe. op. cit., p. 22.
2. Idem.
3. Idem.
4. Idem.
5. Ibid., p. 23.
6. Ibid., p. 24.
7. Prevost to Secretary of Admiralty, December 7, 1857, Pac. Stn. Rec.
8. Idem.
9. Douglas to Lord Lytton, January 17, 1859, CO 305/10.
10. Douglas to Lord Lytton, February 19, 1859, Idem.
11. Idem.
12. Mayne. op. cit., p. 72.
13. Ibid., p. 79.
14. Idem.
15. Ibid., p. 138. Prior to Plumper's departure, Douglas sent one officer upriver to complete a running survey of the areas inhabited by the miners as far as Cayoosh (now Lilloett), and returning by way of the Harrison and Lilloett trail. Lieutenant Mayne was delegated this duty, and returned to Plumper at Esquimalt on June 19, 1859.
16. John De Courcy to W. J. Young, June 29, 1859, CO 305/10.
17. idem.
18. Barry M. Gough. The Royal Navy and the Northwest Coast of North America 1810-1914. (Vancouver: University of British Columbia Press, 1971), p. 156.
19. Akrigg. op. cit., p. 172.
20. Gough. Royal Navy. op. cit., p. 157.
21. Douglas to Prevost, July 30, 1859, CO 305/10.
22. Douglas to Captain De Courcy, August 1, 1859, CO 305/11.
23. Idem.
24. Idem.
25. De Courcy to Baynes, August 5, 1859, Pacific Station Records, Correspondence and reports relating to San Juan Island.
26. Prevost to Douglas, August 1, 1859, Idem.
27. Idem.
28. Idem.
29. Idem.
30. Idem.
31. Idem.
32. Idem.
33. Douglas to Captain Hornby, August 2, 1859, CO 305/11.
34. Mary A. Egerton. Admiral of the Fleet Sir Geoffery Phipps Hornby, G.C.B., A Biography. (Edinburgh: Wm. Blackwood & Sons, 1896). Hornby wrote the following on December 4, 1859, to his wife: "I hear that the governor has got much praise in England for keeping the peace with the Yankees. That is rather good, when one knows that he would hear of nothing but shooting them all at first and that peace was only preserved by my not complying with his wishes, as I felt he was all wrong from the start." p. 68.
35. Hornby to Douglas, August 3, 1859, CO 305/11.
36. Hornby to Douglas, August 4, 1859, Idem.
37. Idem.
38. Idem.

39. Campbell to Prevost, August 4, 1859, Idem.
40. Prevost to Campbell, August 6, 1859, Idem.
41. Prevost to Douglas, August 5, 1859, Idem.
42. Douglas to Lytton, August 8, 1859, Idem.
43. De Courcy to W. A. Young, October 1, 1859, Idem.
44. Idem.
45. Idem.
46. Idem.
47. Gough. Royal Navy. op. cit., p. 162.
48. Ibid., p. 163.
49. Ibid., p. 162.
50. Mayne. op. cit., p. 140.
51. Ibid., p. 151.
52. Baynes to Secretary of the Admiralty, November 14, 1860, CO 305.
53. Douglas to Newcastle, March 27, 1860, idem.
54. Douglas to the Duke of Newcastle, March 27, 1860, Idem
55. Gough. Royal Navy. op. cit., p. 167.
56. Ibid., p. 168.

RACE RELATIONS

HMS Plumper's first experience with native peoples appears to have occurred in June 1858 when their assistance was requested by a Mr. Hubbs, the U.S. Inspector at Bellevue, to pursue a marauding gang of Coghole Indians. The Victoria Gazette of June 25, 1858, reported that a party of 130 Indians in a flotilla of eight canoes had attacked a group of miners from Port Townshend bound for the Fraser River mining districts on Orcas Island on June 10. The Indians "fired a volley" into the miners' camp killing an Indian from another tribe who was accompanying them.¹ Boats crews from Plumper were sent to search but were unable to locate the Cogholes, finding instead a starving white named Joseph Foster who had escaped from the marauding Indians.² Plumper conveyed him to Bellingham Bay where he recounted the story of his escape and there the matter ended.

Generally, relations between the British and the coastal Indians were very amicable, at least partly due to an Indian willingness to allow the whites to use their land "on equal terms with themselves."³ There were no bloody Indian Wars, such as occurred on the American frontier. Generally, the British reputation for fairplay against Yankee conquest revealed itself in the Indians' studied preference for "King George Men" (The British) over "Boston Men" (Americans). As John Gowlland remarked once of a local tribe, "the Indians were friendly and obliging, being well disposed toward King George and very civil."⁴ The Hudson's Bay Company was responsible for the amicable relations between whites and Indians, since they had to keep good relations with their principal trading partners.

While on an overland journey to Pavillon, Lieutenant Mayne "experienced the only trouble with Indians (he) had ever had while travelling."⁵ A halfbreed who was journeying with Mayne sold a bullock enroute for "200 or 300 dollars" and purchased a plentiful supply of whisky which was shared

by Mayne's Indian companions. Fighting ensued amongst the Indians but fortunately St. Paul and one of his sons, possessing the only knives in the party, were sober and awake for trouble. As Mayne possessed the expedition's only pistol, peace was preserved.⁶ This minor incident presents a near perfect analogy to the way the British kept the peace with the coastal tribes.

Hilaire Belloc expressed it correctly when referring to Russia: "Whatever happens/ We have got/the Maxim Gun/and they have not."⁷ The occasions for armed force were comparatively rare considering the number of Indians versus whites on the Northwest coast. The Indians did not normally contest the white presence, except to request fair compensation for property, and trouble was almost exclusively confined to criminal activities undertaken for the sake of plunder. Even when British authorities were called upon to enforce the law, there was usually a significant number of Indians who saw the justice of British claims, and willingly cooperated. In the final analysis, when other means failed, it was still the British who possessed the only "pistol," or what Teddy Roosevelt might later term a "big stick."

The role of "big stick" was normally filled by the Royal Navy during the mid-nineteenth century. And when called upon it could strike fear into the hearts of the coastal tribes. In the aftermath of the 1853 punitive expedition against the Cowitchans, the Indian female relatives of the recently hanged murderers sang a special lamentation for the crew of HMS Thetis, which they explained they saw as a "Silax" or "angry ship" and that the Royal Navy was "a separate tribe of King George men who go about punishing all who offend against other tribes."⁸ Generally, British naval Captains plying the Northwest coast sought forbearance in their dealings with Indians, and tended to adopt those methods most easily understood by them. In April

1858, on the road to Victoria, an Indian was showing his revolver to two sailors from HMS Satellite, when the weapon accidentally discharged, wounding him. Regretting the incident, Prevost arranged for the seaman who had inadvertently fired the shot to pay the wounded man's relatives the sum of £5, six shillings, in accordance with accepted native custom.⁹

Barry Gough argues that the policy of the colonial government on Indians during the nineteenth century was essentially one of "crisis management." In other words "authorities tended to respond on demand, enquiring into murders, thefts, and piracies, investigating illicit liquor traffic, slaving and a few cases of cannibalism, supporting settlers in fear of Indian attack, and aiding missionaries as the need arose."¹⁰ London had enunciated its Indian policy in such acts as the Charter of Vancouver Island, 1849, and the statute that created British Columbia in 1858. "Whitehall, particularly the Admiralty," noted Gough; "was quick to wrap the knuckles of its representatives if they did not proceed in acceptable fashion."¹¹ In British Columbia, Douglas was able to anticipate London's wishes in Indian matters and thus was able to escape the censure that, Blanshard, his predecessor, received for the 1850 punitive expedition against the Newwity tribe. Governor Douglas "drew on the Hudson's Bay Company's policy of peace for the purpose of profit," but he was not averse to employing Gunboat diplomacy against the coastal tribes when it suited his purpose.¹²

At the place known as "Hill's Bar" in Fort Langley, there ensued a potentially explosive situation between the Miners and Indians. "The quarrel arose out of a series of provocations on both sides," Douglas noted; "and from the jealousy of the savages, who naturally feel annoyed at the large quantities of gold taken from their country by the white miners."¹³ Douglas, with his small party from HMS Satellite, gave the

miners and natives a stern lecture about the naughtiness of their ways. He used a sympathetic Indian leader to calm the natives, but he was less diplomatic to the American miners:

I refused to grant them any rights of occupation to the soil, and told them distinctly that Her Majesty's Government ignored their very existence in that part of the country, which was not open to settlement, and they were permitted to remain there merely on sufferance; that no abuses would be tolerated; and the laws would protect the rights of the Indian, no less than that of the white man.¹⁴

As Barry Gough wrote on this episode:

These shows of force helped stabilise the frontier, though in actuality the crisis solved itself in its own way, partly because of Indian willingness to allow whites, as an Indian chief later recalled, 'to use that country on equal terms with ourselves.'¹⁵

Douglas would not countenance lawlessness on the part of American gold-seekers, and to impose law and order he would use the only force he had at his disposal, the ships of the Water Boundary Commission.¹⁶

On August 17, 1859, Douglas ordered Richards to investigate reports of the abduction of white coal-seekers by Indians at Burrard Inlet, believed to be in retaliation for the arrest of two of their tribesmen at New Westminster. Douglas sought to avoid trouble and, offering the services of Moody and an Indian interpreter, directed Richards to issue a stern warning to the Indians that such transgressions would be severely punished in the future. HMS Plumper first delivered Moody and his suite to Griffin Bay, and to Nanaimo to coal ship. Richards anchored in Burrard Inlet on August 20 and learned from local Indians that the Englishmen they sought were alive and well at the coal beds in the inner harbour. The miners were found "pursuing their investigations unmolested."¹⁷ A coalminer named Robert Burnaby reported that the whites had amicable relations with the Indians and needed no assistance from the Navy.

The Indian accused of molesting the Englishmen, Chief Ki-ap-i-lano,

was called on board Plumper to account for the dispute. It emerged that the coal-seekers were visited by large numbers of local Squamish Indians during Ki-ap-i-lano's absence at Whatcom County. The tribe had mistakenly thought that one of their tribesmen had been unjustly arrested for a murder he had not committed and was due to be hanged forthwith. Burnaby wrote to the District Magistrate at New Westminster for an explanation. The magistrate replied that no such incarceration had taken place. This news, as well as the fact that the murder had been committed by the Musqueams, a tribe with which much ill feeling existed, immediately appeased the natives.¹⁸ The Musqueams had apparently spread the false rumour to sow discord between the Squamish tribe and the whites. Ki-ap-i-lano denied "the idea of any of his tribe putting on a hostile attitude towards the white people, and considers it must have been altogether a mistake on the part of the latter."¹⁹ Richards impressed on Ki-ap-i-lano that the Squamish must obey the "Queen's law" and that if they did not they would be punished. At the same time, however, they were entitled to "receive every protection at our hands" by swearing out a complaint before a magistrate if they felt they had been wrongly treated.²⁰ "I likewise informed him that though I had been sent to afford assistance to the white people, I should have been as promptly sent to afford him and his people protection against our countrymen had they needed it."²¹ Ki-ap-i-lano agreed to Richards' offer as being just and fair and "he positively promised me that he would not only abide by it himself, but would use his influence with the other tribes with whom he is on good terms, to follow a similar course."²²

The visit yielded unexpected fruit. Ki-ap-i-lano volunteered the identities of two murderers to Richards, one Samamook and Tsen-se-mont, their description, and their whereabouts. Ki-ap-i-lano alleged that the

pair had committed the 1858 murder of five white settlers at a Fraser river sawmill. Robbery had been their principal motive. The chief explained that he had intended to inform the authorities of the crime, but had refrained from doing so,

...partly from disinclination to get them into trouble, and partly from fear of consequences to himself... That since that time the Musqueams had murdered his own son, and he²³ is now prepared to go to any length to ensure their punishment.

The incident caused Richards to reflect on the relationship between the white man and the native peoples, reaching a conclusion which now seems ahead of its time. In summing up his report to Baynes, Richards conceded that many wrongs were committed on both sides, but that his "opinion is that natives in most instances are the oppressed and injured parties."

The white man supplies him with intoxicating spirits, under the influence of which most of these uncivilised acts are committed. The white man in many instances considers himself entitled to demand their wives or their sisters, and if such a demand is disputed, to proceed to acts of violence to achieve their objects... The natives can be said to have little recourse in such matters, they are either ignorant of or discontented with our mode of punishing such cases. Nor can the Magistrates who are for the most part unacquainted with Indian character and habits be expected to be competent to deal with them.²⁴

Richards recommended the appointment of an Indian agent, an expert acting on behalf of the colonial authorities as a liason officer to the various tribes. Such a man thoroughly familiar with Indian ways, Richards believed, would go a long way in preventing such occurrences from happening in the future.

Richards proceeded to Nanaimo to continue survey work and to deliver passengers to Port Moody.²⁵ By August 25, Plumper was sounding off the entrance to Nanaimo harbour and non-essential personnel were granted a few days leave. While ashore, Moriarty and Wood witnessed the conduct of Hudson's Bay Company men towards their Indian customers that was so

scandalous that Richards later reported the entire incident to Governor Douglas.

Nanaimo had traditionally been a stopping place for the Haida Indians on their journey from Queen Charlotte Islands to Victoria. On August 29, 1859, two large canoes carrying over fifty occupants arrived in Nanaimo harbour. That day two keys to the Hudson's Bay Company store went missing and the superintendant blamed the newcomers. The keys were later returned but the superintendant still demanded that the thief be given up to him. This the Indians declined to do, and the company men seized and arrested the Haida chief, whose son, upon seeing his father about to be "captured for an act which he disclaimed all knowledge of, came to his assistance and displayed his knife, upon which one of the officers of the company struck him with a stick or club, the blow was repeated several times and the Indian knocked down and severely injured."²⁶ At that moment, another Indian confessed to the theft. He was thereupon seized, carried into the company store against his will, and severely flogged with an ox whip. Afterwards he was locked up "with two or three others" in the company's powder magazine. Mayne observed that it was the same company man who instigated both incidents of violence, and both were witnessed in their entirety by Moriarty, Wood, and a Mr. Brown, the Wesleyan minister.

Dr. Wood attended the first wounded Indian and recorded that he suffered from a broken arm and had a "badly damaged" head. Richards submitted to the Commander-in-Chief that such violent and punitive conduct towards native peoples was perhaps excusable in the near past when the company was the principal legal authority and faced a very real and potentially dangerous threat from the natives.²⁷ However, the Hudson's Bay Company's legal suzerainty ended with the establishment of Vancouver Island as a

Crown Colony in 1849. The company men were now equals to the Indians under British law, and the practice of "frontier justice" could no longer be justified by current circumstances nor tolerated by the agents of the crown.

In March 1860, Douglas received word of trouble between settlers and Indians on Salt Spring Island (originally "Admiral Island") and immediately requested the assistance of a man-of-war.²⁸ Douglas did not expect "any immediate mischief" but thought that an exhibitionary visit by the Navy would suffice to intimidate mischievous natives. In response, Baynes noted that the lack of a resident magistrate on the island, and its distance from Victoria, rendered it imperative that a competent civil authority be appointed

to act in cases of necessity, who would acquire from his position an influence with the Indians sufficient to restrain them from acts of violence by pointing out the certain retribution that would follow; and would have the power to²⁹ control the white population who are frequently the aggressors.

Baynes' response was entirely in accordance with the imperial directions from Lord Lytton at the Colonial Office: the Army and the Navy were to be used only as a last resort in civil matters.³⁰ Yet a proper civil authority had not been yet established on Salt Spring, and the parsimonious governor still wanted to use the navy as a floating police force since the colonial treasury did not have to foot the bill.

Notwithstanding Baynes' objections, HMS Plumper was duly dispatched to visit the island while on its way north. Richards found 25 white settlers in log huts living nearby twelve members of the Penalakiton tribe who were living in temporary huts by the sea shore. There was no evidence that indicated imminent violence between the two parties, but there were differences over property and right to the occupation of the island. The Indians apparently had no desire to disturb the whites but claimed the

right to grow potatoes, to hunt, and fish as they had for generations.³¹ One Indian pointed to the graves of his family to prove their point. The settlers were equally amicable, having no objection to the modest number of natives present, but feared future influxes would interfere with their property rights and wanted the authorities to prohibit the erection of permanent dwellings.

Richards explained this to the natives. Anxious to be good neighbours, they commented that "everything we said was good," however, they wanted either compensation or land laid aside which they could occupy.³² Richards agreed to communicate their request to the Governor if they agreed to refrain from constructing any more dwellings without permission. Thus the incident was brought to a close amicably, the rumour of violence disproven, and there had been no necessity for the Navy to intervene in the first place.

However, the problem of resolving Indian land title in Vancouver Island was not to be dealt with so easily. Indian lands had been neither purchased nor conquered, and a conflict was inevitable. Mayne, after returning from one of his overland journeys, advised that the colonial government purchase the land immediately "before the Indians are persuaded by the priests not to sell it."³³ "It is well known that they have a great influence over the Indians, and (it is) generally believed that in Cowitchan they persuaded them not to let the land go for under £1 an acre," Mayne wrote. The Indians already knew vaguely that the land was valuable, he added, but the key was to get the land from them at the lowest possible price, as there "is a vast difference between giving them 2,000 or 3,000 blankets and £1 per acre."³⁴ In order to settle the matter once and for all, Mayne thought that it would be necessary to gather all the chiefs of the coastal tribes together so that they could decide who were the

"rightful owners of the soil." "Otherwise," Mayne argued, "directly one set are paid, another will squat on the land, and repudiating the right of the first set, expect also to be paid, and this would be endless."³⁵ Mayne's presence was not to be heeded by the colonial government since there was not enough money in their coffers to buy off the tribes, and the Imperial government declined to contribute funds since it was considered a strictly local matter.

Barry Gough notes that it was questions of territoriality that caused the Indians to war with one another, especially at Victoria: "The Songhees had a reservation, the Haida did not."³⁶ Douglas had foreseen this while a Chief Factor for Fort Victoria in the Hudson's Bay Company, when he negotiated eleven deeds of conveyance with the local Songhees and Saanich tribes whereby the company obtained all the land from the Saanich peninsula to Sooke. However, Douglas was entirely sympathetic to Indian claims for compensation on land matters and had company authority to regard the Indians as rightful owners of all lands occupied or cultivated at the time Great Britain obtained sovereignty in 1846.³⁷ Douglas purchased Songhee lands for the price of 371 blankets and one cap for one Tlolemistin. These eleven "treaties" signed at Fort Victoria between 1850 and 1852, were the only ones ever signed with British Columbia Indians, with the exception of "Treaty 8" in 1899.

Once the rule of the Company was ended and the tide of settlement was reaching its zenith, it became apparent that it was necessary to buy off the Indian land title in order to purchase settler security. In 1861, Douglas would put a request from the House of Assembly to the Secretary of State for the colonies for the sum of £3,000 to extinguish Indian land title. The amount was "trifling" but was essential to allay Indian

grievances and thus preserve peace in the country.³⁸ The Colonial Office denied the request, arguing that it was the responsibility of the Colonial Assembly, not the Imperial government, to finance such schemes. Consequently, the proposal was never taken up again by colonial, provincial or dominion governments.

On May 11, 1860, HMS Plumper was dispatched to Port Harvey. Upon arrival, rumours circulated of an intertribal war in the region about to break out between the Matâlpurs and the "Queen Charlotte Islanders" (Haida) tribes.³⁹ At issue was the transport routes to Victoria. The Haidas traditionally traveled down the inside passage to get to Victoria for trading purposes, and were lately being ambushed and attacked enroute by the Matâlpurs. Though a disastrous internecine conflict was being waged in their midst, the surveyors were powerless to intervene to safeguard both native and British interests. Unless the lives of British subjects were actually in danger, only a competent civil authority appointed for the task could intervene in Indian affairs, and no such authority existed in most of the isolated areas of the Northwest coast.

On June 26, 1860, HMS Plumper received a signal from the Flagship to unmoor and proceed to Victoria immediately. The next day, Governor Douglas solemnly boarded the vessel to the sound of a seventeen gun salute. The "Indians of the north" had "shown symptoms of mutiny" and had resisted attempts by the local authorities to relocate their encampments so that warring tribes were not near each other or the townsfolk.⁴⁰ As Gowlland explained:

Our presence here is in consequence of the late depredations made by the Indians, the culprits in several cases having retreated to their huts and defied the police and have become so impertinent in consequence that the governor being afraid they would carry their insolence further, requested the Admiral that a man-of-war might lay in the harbour a short time thinking the effect she might produce

by bringing a broadside⁴¹ to bear on the village and then saluting might intimidate them.

In the 1850's thousands of Indians, mainly Haida and Tsimshian, were coming to Fort Victoria annually in the winter "to trade, to get liquor, to engage in prostitution, and to enquire into the strange ways of the whiteman."⁴²

Internecine rivalry and violence was a problem near the fort since feuding tribes, particularly Haida and Songhees, would fight each other and create a public nuisance at their camps on the shores of Esquimalt and Victoria Harbours.⁴³

The Songhees were indigenous to the Victoria area and were camped immediately opposite the fort's bastion, causing mutual fear and distrust between the whites and Indians. In 1855, a local mariner wrote that the local Indians had frequently made plans to attack but were afraid of the fort guns. In 1859, Charles Wilson, A Royal Engineer officer with the British Land Boundary Commission, believed in the real possibility of an Indian war at Victoria.⁴⁴ Dealing with the local Indians had always posed sensitive problems for the authorities. The Navy had been called out in the past to escort the visiting Indians home in their canoes, but this had proved an impractical method. In March 1860, HMS Tribune attempted this method again towing the Indians as far as Cape Mudge, but it failed to prevent their immediate return to Victoria. Mayne was a particularly harsh critic of this method:

The impolicy of the measure soon became apparent, to say nothing of the impossibility of carrying it into effect. No one who knew anything of the Indian character would believe that sending a few hundreds back would have the effect of deterring others from attempting the voyage down. Besides which, how could it be expected the men whom we had driven away or kept back forcibly from our towns would permit whites to "prospect" for gold or settle in the country?⁴⁵

Nothing short of "violent measures of repression, backed by strong military force" would prevent the migration of Indians to Victoria; therefore a workable method of controlling them in the locale had to be developed.⁴⁶

The incident that precipitated naval intervention occurred when Haida Indians opened fire on the schooner Royal Charlie as it exited Victoria harbour. "Further disturbances made the presence of HMS Plumper essential to show the Indians that their encampment was within easy reach of the warships of Esquimalt naval base," noted Gough.⁴⁷ According to Richards' plan, Governor Douglas would ceremonially board the vessel and they in turn would fire as much blank cartridges as possible in the form of a salute, while the Royal Marines, small arms men, and field pieces engaged in a conspicuous display of drills on Beacon Hill.⁴⁸

During the escalating show of force, an incident in the city precipitated a more active intervention against the native population. An Indian nick-named "Captain Jack" and his brother were apprehended by the police on charges of murder. While in the police station, the Indians drew their knives and attacked their captors, stabbing a constable, but were both shot dead before they could get away. As a consequence, Royal Marines were sent to disarm the Indian population at Victoria and secure their weapons for safekeeping while they were in the area. In order to stabilise the situation, HMS Plumper remained in harbour for the Coronation Day festivities "to give the Indians the benefit of a little more powder and noise," and then made for Nanaimo on the 28th.⁴⁹ In order to persuade the coastal tribes to stop fighting one another, the Plumper in company with Alert and Termagent would be dispatched to the the Queen Charlotte Islands, Fort Simpson, and elsewhere, to inform the Indians that henceforth they would have to stop their marauding ways and be peaceful during their annual visits to Victoria.⁵⁰

On July 12, 1860, HMS Satellite was dispatched to investigate reports of an "Indian Disturbance" on Salt Spring Island.⁵¹ Prevost learned that

a trader named Macauley persuaded the hired Indians who were paddling his canoe to land in the territory of a rival tribe. Upon landing Macauley's party was attacked by the rival tribe and all his native companions save one were murdered. Macauley escaped unhurt; he was spared due to the fact that he was white. "Many of the quarrels which call for the interference of a naval or military force arise from the questionable conduct of the White Man," wrote Baynes to the Secretary of the Admiralty; "and I have strongly urged on the Governor the neccessity of Appointing a Magistrate in the settlement on Salt Spring Island where upwards of 60 people are present."⁵² Richards expressed surprise at reports of "Indian disturbances" when Plumper returned from Admiral Island on August 4, 1860. He was investigating complaints of similar disturbances but had found nothing. Even W. Nicol, the man who had sworn out the complaint in the first place, said nothing to Richards during his 48 hour stay there.⁵³

On August 8, 1860, HMS Plumper and HMS Alert were sounding in the Strait of Georgia when they were called away to Fort Rupert to retrieve a captured slave and defuse a tense local situation among the local tribes. A local chief had taken the British at their word and had sworn out a complaint before a magistrate in Victoria for the redress of the abduction of his wife, Hu-saw-i, by the Kwakiutl tribe.⁵¹ In addition, tensions were high among the tribesmen, having returned recently from a "debauch" and were supplied with illicit alcohol purchased at a recent visit to Victoria. One of the tribal chieftains, A-kush-ma, had been murdered by Songhees there and the tribe was planning a war party to proceed southward to avenge his death.⁵²

Richards sent word to the tribal chiefs that he wished to meet with them to convey a message from the governor. The chiefs, suspecting treachery,

refused to meet him at the fort, so the meeting took place in front of their lodges. While Richards proceeded ashore, the ship's company engaged in a timely display of gunnery practice, no doubt calculated to gain best effect in intimidating the tribe:

Captain went on shore and had a long "wah wah" with the chiefs and principal men of the tribe by aid of an interpreter respecting a slave they have in their possession and belonging to the Nanaimo tribe - the latter having made a petition to the governor requesting his interference and to restore them their kinswoman - After a great deal of talk on both sides they agreed to give her up on condition of their houses being spared, which the Captain had threatened to destroy if they would not comply with his demand - A canoe was obtained and sent over to some island where they had concealed her on their arrival, and we ultimately got the poor wretch on board. She appeared as much terrified at being rescued, as when⁵³ taken - thinking we were going to hang her or something worse.

In addition, Richards explained to the tribesmen, interpreted by an HBC official, that "the time had come when they could no longer take the law into their own hands; that Mr. Douglas... was very angry with them, and was determined to punish them if they did not behave better; that they must no longer kill in retaliation, but be satisfied that all murderers would be duly tried by law, and if found guilty, executed."⁵⁴ A brother of the murdered chief disrupted the meeting by angrily announcing his intention of killing the men responsible himself. However, after much discussion the chiefs agreed to cease killing and taking slaves if the others tribes did likewise. One chief even asked the British why more missionaries had not been sent to teach them what is right. "They felt ashamed," he said, "before the Tsimsheans, whose young men were learning to read and write, and knew so much more than they did, Why was Mr. Duncan sent past Rupert to Fort Simpson, and no one sent to them?"⁵⁵ The question was awkward for Richards and probably took him by surprise since he had often wondered as much himself, but he promised the chief that their desire for instruction would be made known to Governor Douglas, and that teachers

would soon be sent. At that time, the Indians handed a pole to Richards as a sign that the meeting had ended amicably.

However, the tribe was initially reluctant to give up their prisoner without the payment of a ransom of 100 blankets. Richards refused, but the Indians still stalled for time claiming she was three days journey from Fort Rupert. Richards threatened that he would allow three days for them to retrieve the woman and if this demand was not met he would use force. Seeing the futility of further resistance, the tribe gave in, asking only payment for the canoeists who would make the trip to retrieve her. Richards granted this request and the incident was drawn to a close with the delivery of Hu-saw-i to her husband at Nanaimo on August 27th.⁵⁶

With this matter dispensed with, Richards turned his attentions to professional matters, but not before he submitted a full report of the incident to the Commander-in-Chief. The incident convinced Richards that it was not ships of war that were needed on the coast but missionaries of the calibre of William Duncan. Even Duncan himself was astonished to learn of the desire of Indians to learn of the white man's ways.⁵⁷ The natives were too proud, or too foolish, to fear the white man's exhibitions of raw force. Then, Richards reasoned, it would be more advantageous to send messengers of learning like Duncan than men-of-war, "unless... destruction be contemplated, which of course it is not."⁵⁸

The influence of the White man on native peoples was most clearly evident in the Quatsino tribe, which the surveyors encountered in Quatsino Sound on September 3, 1860.⁵⁹ On the one hand, the tribesmen possessed a particularly "savage" appearance, since they were the only coastal tribe who allowed their facial hair to grow or who practised the bizarre form of skull alteration which gave them oblong-shaped heads.⁶⁰ When the surveyors

visited the village, they were so disgusted by the tribe's sanitary habits, particularly the overwhelming smell of dead fish, that they beat a hasty retreat.⁶¹ However, on September 9, the Quatsinos visited the ship "in a procession as if going to mass... and led off the choir chanting in their own language the Roman Catholic service."⁶² In addition, the Indians were so friendly, hospitable, and eager to trade, that Richards named the sound in their honour.⁶³

On September 20, 1860, HMS Plumper proceeded to Nootka Sound and anchored in Friendly Cove.⁶⁴ The following day, Richards went ashore to take "magnetic observations" and sights of equal altitudes when two Indians sat down nearby to observe "as they generally do expressing astonishment etc at seeing the instruments."⁶⁵ Without thinking, Richards laid the valuable pocket chronometer on the ground and the Indians, intrigued by the glittering charm, stole it. The surveyors gave immediate chase and soon caught up with them some miles distant. The Indians saw them coming, threw the watch against a tree, abandoned their canoe and took to the bush. It was to no avail as they were captured by the boat's crews, put in irons, and were "terrified almost to death."⁶⁶

Later, Chief Maquinna came aboard Plumper to retrieve his wayward tribesmen. At Richards' request, he gave the culprits a stern lecture "on the villainy of their conduct." Maquinna "began gradually and soon worked himself into a most towering rage directing the force of his vehemence in a striking manner on the two thieves - and when he was quite exhausted and foaming at the mouth he appealed to the Captain if it was sufficient, and the defaulters were allowed to return to their canoe."⁶⁷ The ship was surrounded by their fellow tribesmen who "seemed very satisfied with the decision of the court." To preserve good relations with the tribe,

Richards presented Maquinna's "royal" family with gifts of soup, tobacco, looking glasses, beads, and other trinkets, and the tribe was permitted aboard to trade with the ship's company. The Indians left the ship "seemingly highly satisfied with their treatment", but Gowlland remarked: "my own opinion is that they are a most treacherous, thieving set and would commit the same offence tomorrow if they had a chance."⁶⁸

In Dodger's Cove, HMS Hecate had encountered the Ohiat Indians. "They are the most treacherous, thieving lot of rascals, that cannot be trusted out of sight," noted Gowllands.⁶⁹ On June 2, 1861, the survey party also encountered the Se-sharti tribe. Gowlland laconically noted that they "like the Ohiats...,"

are a set of rascals, and one cannot be too cautious or too effacing in transactions with them as they will steal whilst looking you in the face and so adroitly that sometime, they will escape detection, and assume a most injured innocent appearance...⁷⁰

Twelve miles to the east were the Uclulet tribe, "the most powerful and warlike tribe in Barclay Sound, numbering 500 fighting men all well armed, but like their native brothers, a set of rascally thieves, - they would be only too glad to murder all the boats crew for the sake of the utensils in her only knowing us to be a man-of-war, of which they have a wholesale dread, are afraid of the consequences."⁷¹ The commander of the fort at Nanaimo, Captain Stewart, was "sometimes obliged to go away secretly at night for fear of being murdered for the sake of the paltry beads, hatchets, etc. with which he trades with them."⁷²

The Indian threat during June 1861 was deemed by Sir Thomas Maitland, Commander-in-Chief of the Pacific Station, to be so great that he wrote to the Secretary of the Admiralty for reinforcements, specifically another low draught Mutine class gunboat "as the tide races are very strong."⁷³ The request was spurred by the alarming reports forwarded from Cape Mudge

by HMS Forward. Maitland had an insufficient number of men to deal with the Indian threat, having only local police and no soldiers. "I do not expect the Mutine to show up before August," wrote Maitland to the Secretary of the Admiralty; "and should any unforeseen hostile acts be committed by the Indians, I must fall back upon the Hecate as she will be surveying the N.E. coast of Vancouver, but it is objectionable to interfere with a surveying ship if it can be avoided."⁷⁴ HM Ships Topaze and Calypso had both recently departed for Valparaiso to reprovision and were not expected back until September. He recommended that a regiment be sent out immediately. As Maitland wrote:

The frequent outbreaks in New Zealand and on the coast of Africa show that the savages are never to be trusted, unless there is a sufficient force at hand to keep them in check. The Indian tribes that come down here from the North are all armed with muskets, and are expert in the use of them. They are a lazy and indolent people addicted to pilfering and stealing, and appear to support themselves entirely by prostitution of their women.⁷⁵

Though the Governor was temporarily absent, a senior member of the Legislative Council of Vancouver Island requested that a gunboat ought to be stationed at Nanaimo for the protection of the settlers. Maitland sent HMS Grappler to Nanaimo for this purpose.⁷⁶

Native peoples often misunderstood the surveyors' intentions. The opposite, however, was seldom true since the Indians sought contact with the Navy only to trade. On June 27, 1861, the survey team was measuring a base line at Echachets, the Cha-chachits summer village, and had commenced the triangulation of the sound. The schooner Surprise arrived laden with skins and oil, joined by Templar on June 29, to trade with the Cha-chachits tribe, who were long since used to whites but were suspicious of the Navy. As Gowlan recalled:

Found the Indians very civil and obliging altho' I had some difficulty in making them understand the nature of our visit, which they imagined

was to spread disease amongst them; (as had once been done at Cape Flattery by the Americans killing hundreds of the natives) and that the Evil Spirit was in our marks - which we put up - at length through the influence of an old chief who had been to Victoria and mixed a great deal with whitemen, I at last proved to them that my intentions were peaceable.

The village was governed by a "prince regent," who presided for an underage nineteen year old chief. He had considerable status in the village, particularly as a warrior, having the scalps of thirteen enemies outside his dwelling-place. "He is both feared and respected by his tribe," noted Gowllands; "and I had only to appeal to him when any acts of pilfering were done to get the articles so taken immediately restored."⁷⁸

On April 8, 1862, HMS Hecate proceeded north to Fort Rupert. Since Plumper last visited there in 1860, the native population had decreased to about 300, since, with the exception of young girls who were living with white miners and those hired out as house servants and labourers, many had departed to Victoria or had succumbed to smallpox.⁷⁹ Gowlland noted with satisfaction that they had largely "given up their savage ways and mode of living and adopted the Modes of Civilization," but their contact with the white man had taken its toll.⁸⁰ The tribe was nearly leaderless since many elders, such as Old Whale, had died of the disease.

Members of the tribe of both sexes, old and young, home after a lengthened visit to Victoria just managed to crawl back and die from the effects of the disease incurred by their connection to the white man, so that the place has degenerated in more ways than one.⁸¹

The other "great evil" was whisky, a scourge perpetuated by unscrupulous American traders who plied their trade amongst the coastal tribes. The trade of skins and blankets for alcohol had caused "quarrelling, murders and some of the most frightful scenes in the camp, after they had imbibed a sufficient quantity."⁸² The American traders had since taken up residence at Fort Rupert and kept the Indians constantly supplied with alcohol, and

thus "consequently always in a state of maddening drunkenness, cheating the honest traders out of their lawful traffic - and ruining the poor Indians body and soul by their illicit traffic."⁸³ Gowllands remarked in disgust that it was "a great shame the government does not put a stop to their rascally proceedings."⁸⁴

In June 1862, Hecate returned to Esquimalt and reported that the dreaded smallpox had not yet spread to the Indians at Nanaimo.⁸⁵ In an effort to check the disease at Fort Rupert, Dr. Wood and his assistant Kendall, had vaccinated a large number of Kwakiutl who had expressed a willingness to submit to white medicine.⁸⁶ It was to have little effect however, as the disease was reaching its zenith, and those who already had it could not be saved by inoculation.

In July 1862 surveying continued at Nootka Sound. Once complete, the Gowlland retrieved the provisions and pinnace left the year before for the ill-fated Florencia. To his astonishment, Gowlland, ever distrustful of Indians, discovered that none of the stores were missing or damaged. In gratitude, he presented the chief with a small gift and "on the following day we parted the best of friends, the whole village congregating on the beach to see us off and we took our departure for Nootka."⁸⁷

On July 19, 1862, Gowlland was challenged by the Mûchalot Indians, who, suspecting white treachery, refused to allow him to land. After some improvised diplomacy, Gowlland convinced the Indians that they intended no harm, and soon were trading biscuit, knives and thread with the tribesmen. The Mûchalots had good reason to be afraid of strangers, since they were almost constantly at war with the Nootkas since the murder of a Nootka chief many years before.⁸⁰ The Nootkas, it appeared, had long memories, and thus would murder as many Muchâlots as possible whenever convenient.

To make matters worse, their inlet was overlooked by a Nootka camp, who "pounced upon" any Muchâlots seeking to exit. Evidently, Gowlland and his party had stumbled upon an active warzone.⁸⁹

By July 21, the survey of Esperanza Inlet was complete and the surveyors commenced triangulation in Resolution Cove. By July 29, Resolution Cove was complete and HMS Hecate surveyed Quatsino Sound. Once the survey in this area was completed, all boats returned to Esperanza Inlet, where the following ceremonial visit took place:

During our stay the Natives paid a formal visit in their large war canoes, holding 60 men in some of them; dressed up and painted most extravagantly and after paddling furiously round the ship 3 or 4 times chanting their war songs, keeping beautiful time to the music with their paddles - They came on board, and in form presented Captain R. (Richards) with a very handsome Sea Otter skin about 7 feet long and then squatted down on deck patiently awaiting a return present, which they received before making the slightest attempt to leave.⁹⁰ This is their custom.

Richards' fair treatment of the native tribes in civil affairs had paid him considerable dividends in good relations over the years. Not only did tribal elders treat him with decorum and civility due any White "Chief," but Hecate was also a favoured trading post among various coastal tribes.

On August 18, HMS Hecate took aboard Governor Douglas, several colonial officials, and 78 settlers, for conveyance to Cowitchan Harbour. The settlers were to be granted 150 acres of arable land for the price of one dollar an acre, on the condition that they would farm it for five years. However, the Cowitchan country contained over 14,000 Indians, posing the problem of longterm ownership. Ironically, it was during a punitive campaign against the Cowitchans to avenge the shooting of a white settler that it was discovered that the plain was immensely fertile, and Douglas predicted that it could support fifty thousand settlers. "I have therefore bright hopes for our future," he wrote; "and no longer despair of the Colony."

Richards had inadvertently assisted in one of the first large-scale take-overs of Indian lands, an issue that would continue to reverberate in British Columbia history for generations afterward.⁹¹

The uneventful and often tedious routine of the hydrographers was interrupted by orders to stop at an island near Nanaimo on the way to Queen Charlotte Sound. Richards was directed to investigate a clash between local Indians and gold miners, who accused the Indians of pilfering tools, hindering their work and "imposing on them in the transactions of barter... betwixt the two parties."⁹² "These rascals of natives know well when they have white men in their power; and at such times they rarely fail to lay them out in some shape," commented Gowlland. Richards negotiated between the feuding parties, sternly warning the Indians that any future mischief on their part would not go unpunished. Once the preservation of pax britannica was assured in this small realm of Victoria's empire, HMS Hecate continued on to its destination, Tribune Bay.

On September 11, 1862, Hecate arrived at Fort Rupert amidst a smallpox epidemic that would kill a third of the Indians on the Northwest coast before running its course. From Moffat, the Hudson's Bay Company agent, the surveyors learned that much had transpired since their last visit to the Fort in 1860. Old Whale, an elderly chief friendly to the whites, had recently died of smallpox as had scores of tribesmen, only Old Wa-wast-tey remained alive from the last time Gowlland visited there. To make matters worse, the epidemic had made the station unprofitable and Moffat confided that the Company would probably close it "since the brisk opposition they have encountered by the whisky sellers, the assets are barely enough to pay expenses requisite to maintain the establishment."⁹³ Gowlland described the plight of the Indians in his journal:

Since our last visit to this place, it is sadly changed; the once imposing looking village in all its rude uncivilized state is now nowhere to be seen; the smallpox which went through the Indian tribes about three months ago did not save any of these poor fellows, scores of them died and lay for weeks in the same spot unburied and uncared for until the others through actual dread of their own lives from the fearful effluvia pulled down the houses of the dead and scattered the pieces far and wide throwing the bodies in the sea to float away as they carried off the fine, muscular, stalwart fellows that 4 years ago numbered 400 men, now not fifty can be mustered, they are mostly middle-aged or older men, disease appears to have principally attacked the young and the strong and those that it treated lightly came to the same sad end through the alcohol supplied them for spirits by rascally traders. Disease in all its forms and whiskey have made sad havoc with these poor unlearned wretches.⁹⁴

HMS Hecate left Fort Rupert on September 15 and sailed for the Queen Charlotte Islands. Smallpox had ravaged the Indian population in the north as well.

HMS Hecate anchored in Raspberry Cove, Moresby Island, and ship's officers made a courtesy visit to the local Indian village on Anthony Island. Gowlland noted that "the traces of small-pox is visible amongst them yet; but the height of the malady has passed. Hundreds of them have died."

HMS Hecate weighed from Raspberry Cove and proceeded to Skincuttle Harbour, the location of a large Copper Mining establishment.⁹⁵ The civil engineer in charge of the mine, a Mr. Poole, came aboard to complain that local Indians (many of whom were then present on the ship's quarterdeck) had stolen possibly 8 sledgehammers from the miners, as well as a number of cooking utensils. "Which actions they of course most virtuously repudiated," sneered Gowlland. Notwithstanding their protestations of innocence, "the Captain gave them to understand if the King George Men (the whites) were ever molested again,"

...a Man-of-war would instantly come and burn all their villages; and otherwise most seriously punish them for their offences; they appeared much amused at our threats and paid little or no heed to any warnings given; they are not easily intimidated; the only mode of treating Indians I find is the most decisive measures thought of on the spot and (unreadable) very severe with instant execution, then if they cannot kill you they will in the future fear and respect you."⁹⁶

Richards had delivered a stern warning to the Indians to refrain from molesting the whites "or else." The threat had little effect on the Indians, but they apparently stopped pilfering the miners' goods.

On September 18, HMS Hecate anchored at Fort Simpson to enforce order in the mining districts. Reports of the murders of whitemen had reached such an "alarming figure" that no party of under twenty members was presumed safe and all parties of this size had to be armed and alert.⁹⁷ Unconfirmed reports reached Hecate that 40 Bela Kula Indians had war canoes and "perhaps 100 muskets" at Bentinck Arm ready to attack and seize any gold schooner that crossed their path. Hecate was accompanied by HMS Devastation, who also had on board 40 luckless miners from the Stikeen gold districts who required passage to Victoria. HMS Devastation was at Fort Simpson to investigate the murder of three whitemen by Tsimshian Indians.⁹⁸ HMS Hecate had been ordered to assist in the apprehension of the culprits, three men and one woman. Upon their arrival, two had already been captured and the other two were reportedly in hiding on Dundas Island. Commander Pike of Devastation gave the Indians an ultimatum that he intended to destroy the village if they did not surrender the remaining murderers by September 19, 1862.

Richards had wisely brought the renowned missionary, William Duncan, to act as an intermediary and interpreter. Duncan assembled the chiefs for a "wa-wa" with Richards, who pointed out to the Indians that, with two warships present, the Navy would definitely "carry their point," but also that "it was their duty as well as in their interest to assist in bringing the murderers to justice."⁹⁹ Duncan brought his considerable influence to bear with the natives to aid British justice, and several volunteers were obtained to assist in the search at Dundas Island.

The tribe was in no position to resist the threat to their village posed by Pike. They were already in a pathetic and dilapidated condition because of the smallpox epidemic, which showed no signs of abating. 600 Indians out of 2,000 had already succumbed to the virus, and they were incapable of defending the village from naval gunfire. The natives remained defiant and some vowed that but for the effects of the disease on their population, they would have towed HMS Devastation on shore and "made a bonfire of her."¹⁰⁰

The disease still raged in the camp and the disposal of the dead posed a sensitive and dangerous problem for the authorities. The Indian method of burial during the epidemic was to leave the dead in their former houses in the village. This practice had gone on for some time and the corpses were then in various stages of decomposition. The Indians refused to allow the dead to be buried by the men of the Hudson's Bay Company, who were too few in number to risk tribal wrath by doing so without permission. Nor could William Duncan help, since moving his settlement to Metlakatla, he no longer held moral authority over the Fort Simpson tribe.

The destruction of the village was postponed in order that no time would be lost for the search but HMS Devastation returned that evening to seize fifteen canoes and most of the tribe's winter food supply. On September 23, the third suspect was captured and kept in confinement aboard HMS Devastation at Fort Simpson to await trial. Only "Loo-dzee-chee-wost" remained at large and it appeared to Richards that despite their previous assistance, "the natives evinced a decided disinclination to give him up."¹⁰¹ "There is reason to believe that he had been more than once in their power," Richards wrote; and was "being sustained in his hiding place by powerful

friends."¹⁰² Richards was particularly anxious that the murderers should be punished as examples to the growing number of tribes who considered themselves superior to a "European" force. The particularly cruel and premeditated nature of the murders and the fact that they were undertaken strictly for the sake of plunder, made it very likely that the crime would be repeated by others if it went unpunished. Richards believed that British success was of paramount importance to the overall safety of the colony and had to be achieved at all costs.

On September 23, 1862, Richards received intelligence that the murderer was "some miles down the coast living with a friendly number of natives who promised to protect him."¹⁰³ Devastation and Hecate immediately proceeded to Pearl Harbour to investigate. Sailors and marines went ashore to search, but found only nine large canoes left behind by fleeing Indians. The Hecate and Devastation took the captured canoes in tow and returned to Port Simpson. Richards had decided not to destroy the village, and defended his action in his report to Maitland:

To have destroyed the large village here, as well as the 25 canoes and great quantity of provisions in our possession would have undoubtedly inflicted a very severe punishment on the tribe, and, looking to the large number of woman and children who must have been equally the sufferers, I was led to think that such an act would scarcely have been justifiable and would probably have produced a feeling among the Indians generally, which might have compromised the safety of the Hudson's Bay Company servants here, as well as the numerous white miners passing between Stikeen River and Vancouver Island, and - not least - have exercised a very mischievous influence on the missionary establishment of Mr. Duncan, and probably placed that gentleman's life in danger.¹⁰⁴

On September 25, sailors and marines from HMS Hecate surrounded the Indian village and arrested Alam-la-ha, the elderly head chief of the "Kin-glan-glaks" tribe, and five tribal elders, who were brought back to the ship as hostages. They "brought the poor old man on board who was so decrepit with age he could scarcely stand, he was taken on board

Devastation and treated well," noted Gowlland.¹⁰⁵ It was thought that threatening the old chief with death would motivate the Indians to search for the murderers. Richards had no such intention but the Indians did not know that, and the tactic worked very well. Several canoes hastily departed the village to search for the murderers but returned after three days so "dispirited and half starved... that we could no longer doubt their anxiety to capture him."¹⁰⁶ As a show of good faith, Pike released all hostages except for Alam-la-ha and the three suspects awaiting trial.

HMS Hecate returned Duncan that day to Metlakatla. Upon the return passage, Richards assisted Devastation in the boarding of the cutter Hamley, and 300 gallons of illicit liquor was discovered.¹⁰⁷ As it was clearly intended for distribution to the Indians, every drop was dumped into the sea on Pike's orders. "Had such quantity of poison been distributed among the tribes in their excited state....," surmised Richards:

the result would probably have been very serious - and I beg to observe that in the great majority of cases, the disputes between the white people and Indians, frequently leading to violence and murder are entirely owing to the illicit distribution... by unprincipled traders and masters of coasters. It is impossible to condemn too strongly or punish too severely a practice not only leading to such lamentable results among their own people, but tending to demoralise and degrade the native and to render nugatory all the efforts that are being made to raise up and better his condition.¹⁰⁸

HMS Hecate arrived at Metlakatla on September 24, 1862. "Mr. Duncan and the men who came down with us, landed and was received by the Indians with demonstrations of great joy by them," noted Gowlland.¹⁰⁹ The missionary had been a familiar and much admired figure amongst the surveyors since his arrival in the colony aboard HMS Satellite in 1857; in his honour, Richards named the anchorage at Metlakatla "Duncan Bay."¹¹⁰ HMS Hecate remained at the settlement to conduct the first survey of its harbour. The mission was located on the north shore of a river or "narrow inlet"

beset with rocks, kelp patches and strong tides. The approach was thus very dangerous but the survey year was fast running out and Hecate had no time to survey it with precision.¹¹¹ The settlement was the original home of the Tsimshian Indians before they moved to Fort Simpson in 1834, and since Duncan's colony had moved back that year (1862), a number of modern houses and a church had been built.¹¹² Gowlland expressed accurately the reverence with which the famous catechist was held by natives and Englishmen alike:

The number attached to the station are about 500. Mr. Duncan is their chief, friend, physician both to mind and body, and their magistrate in any civil quarrels, and they look up to him with great reverence and affection; he snatched these few from the Vices and Pollutions of their tribe at Fort Simpson, and brought them as far away as possible from it, and now he is striving and doing all a Christian man can do to¹¹³ elevate them above the savage life hitherto they have indulged in.

In addition, The officers and men of HMS Hecate were so impressed with Metlakatla settlement that they made substantial contributions in money and used clothing to aid Duncan's preparations for the approaching winter.

Richards made a full report to Douglas of the entire arrest proceedings, and praised Metlakatla settlement as a means to both improve the lot of native peoples, as well as ensure the safety of the frontier.¹¹⁴

"It is scarcely possible to convey to your Excellency," wrote Richards;

an idea of the contrast presented between the 4 or 5 hundred orderly and well conducted natives established here under Mr. Duncan's personal charge, and the lawless and degraded beings we have just been dealing with, or to ...duly appreciate the effect that is being produced at this place; or the labours of the gentleman under whose influence so much good is resulting without personally witnessing it, and seeing him as I have done surrounded by people of all ages who to every appearance have abandoned heathen practices and look to him as their guide and preceptor in all things.¹¹⁵

Duncan had even appointed native constables to preserve law and order in the settlement. Since this was an adhoc means of preserving order and was without legal sanction, Richards recommended that it would "add much

to his influence and power to good if Duncan were appointed a Justice of the Peace."

In response to a petition by over 200 Indians of Metlakatla, prompted no doubt by their concern over his old age and infirmity, Richards released Old Alam-la-hah to their custody in return for their offer in good faith to answer for the capture of the remaining murderer.¹¹⁶ HMS Hecate discontinued its involvement in the hunt for the remaining murderer and left the matter to Pike and HMS Devastation. On October 17, with the crew of Hecate looking on, HMS Devastation sailed triumphantly into Esquimalt with the murderers aboard to commit them to trial at New Westminster.

This chapter has examined the relationship between the hydrographic survey and the coastal tribes. For the most part, Richards and his officers acted in aid of the civil power to intervene in the role of either an arbitrator or a policeman in disputes between natives and whites or in inter-tribal quarrels. Generally, relations between the hydrographic survey and the coastal tribes were amicable, a necessary condition in an area where Indians were essential to commerce and the best source of information for the hydrographic survey. The Royal Navy used a combination of the threat of force and diplomacy in race relations on the Northwest coast. For Richards and his officers, the occasions were rare indeed which merited the actual use of force against the coastal tribes. For their part, the Indians were usually cooperative with British maritime authority, but they did so on their own terms.

NOTES

1. The Victoria Gazette, June 25, 1858.
2. idem.
3. Gough. Gunboat Frontier. op. cit., p. 78.
4. Gowlan. loc. cit., 5 September 1859.
5. Mayne. op. cit., pp. 129-130.
6. idem.
7. Quoted in Gough. Gunboat Frontier. op. cit., p. 211.
8. ibid., p. 55.
9. C.C. 1219. HMS Satellite File. Prevost to Douglas, April 1, 1858.
10. Gough. Gunboat Frontier. op. cit., p. xiv.
11. idem.
12. idem.
13. G. P. V. Akrigg and Helen B. Akrigg. British Columbia Chronicle 1847-1871. (Vancouver: Discovery Press, 1977), p. 111.
14. idem.
15. Barry M. Gough. Gunboat Frontier. (Vancouver: University of British Columbia Press, 1984), p. 78.
16. Idem.
17. C.C. 1212. HMS Ganges file; Baynes to Douglas w/ enclosed report from Richards, 26 August 1859.
18. idem.
19. idem.
20. Idem.
21. idem.
22. idem.
23. idem.
24. idem.
25. Gowlan. loc. cit., 21 August 1859.
26. C.C. 1212. Richards to Baynes, 31 August 1859.
27. idem.
28. C.C. 1212, HMS Ganges file, Baynes to Douglas, 31 March 1860.
29. idem.
30. Sir Edward Bulwer Lytton to Douglas, 16 October 1858, Papers Relating to British Columbia, Great Britain, Parliament., 1859-60. pp. 69-71.
31. C.C. 1212. Richards to Baynes, 6 April 1860.
32. idem.
33. C.C. 1217. Mayne to Richards, April 19, 1860.
34. idem.
35. idem.
36. Gough. Gunboat Frontier. op. cit., pp. 71-72.
37. idem.
38. idem.
39. Gowlan. loc. cit., 11 May 1860.
40. Mayne. op. cit., p. 190.
41. Gowlan. loc. cit., 27 June 1860.
42. Gough. Gunboat Frontier. op. cit., p. xiv.
43. idem.
44. idem.
45. Gough. Gunboat Frontier. op. cit., pp. 69-70.
46. idem.
47. idem.
48. Mayne. op. cit., p. 190.

49. Mayne. idem.
50. Gough. Gunboat Frontier. op. cit., p. xiv.
51. Gough. Gunboat Frontier. op. cit., p. 87.
52. Mayne. op. cit., p. 208.
53. Gowlland. loc. cit., 8 August 1860. While in Fort Rupert, Gowlland observed the local Indians and their ways of doing business: "The Indians have pitched their houses all around the fort and are all well-behaved people about 500 in number, well armed and by far the most intelligent tribe we have yet come across - the houses they inhabit are on a much more comfortable scale than their neighbours; one large building being divided into a number of smaller rooms which are fitted upon a very elaborate scale with blankets mats, pictures from illustrated news pasted all over the walls, some upside down, others sideways and so on -- they catch immense numbers of salmon but will trade with nothing else but money -- and well they know the value of it."
54. Mayne. op. cit., p. 209.
55. ibid., pp. 209-211.
56. For a full account of the return of Hu-saw-i to her husband, see Mayne. op. cit., pp. 212-213.
57. Mayne op. cit., p. 212. Richards asked Duncan: "Then why do not more men come out, since your mission has been so successful; or, if the missionary societies cannot afford them, why does not the government send out fifty, and place them up on the coast at once? Surely it would not be difficult to find fifty good men in England willing to engage in such work? and their expenses would be almost nothing compared with the cost which the country must sustain to subdue the Indians by force of arms."
58. idem.
59. ibid., 3 September 1860.
60. idem.
61. idem. "They resemble their friends in all their dirty habits and their heads are a nest of pestilence," noted Gowlland.
62. Gowlland. loc. cit., 5 September 1860.
63. ibid., 17 September 1860.
64. ibid., 20 September 1860.
65. ibid., 21 September 1860.
66. idem.
67. idem.
68. idem.
69. ibid., 2 June 1861.
70. idem.
71. idem.
72. idem.
73. Maitland to the Secretary of the Admiralty, June 10, 1861, CO 305/18.
74. idem.
75. idem.
76. idem.
77. Gowlland. loc. cit., 27 June 1861.
78. idem.
79. ibid., 10 April 1862.
80. idem.
81. ibid., 15 March 1862.
82. idem.
83. idem.
84. idem.

85. The British Colonist, June 24, 1862.
86. idem.
87. Gowlland. loc. cit., 2 July 1862.
88. ibid., 19 July 1862.
89. idem. The Muchälots had little prior contact with whites. Gowlland explained: "This will partly account for their present savage state in comparison with other tribes: they have had little or no contact with Whites, and all the trade they carry on is with their enemies and bugbears the Nootkas, who get enormous profits from them for musquets &c." The Indians claimed there was gold in that area, but further investigation by panning in local streams revealed no evidence of its presence.
90. Gowlland, loc. cit., 30 July 1862.
91. Gough. Gunboat Frontier. op. cit., pp. 67-68. see also Gowlland, ibid., 23 August 1862, and Brock, Ship's Dossiers, HMS Hecate pamphlet.
92. Gowlland. ibid., 7 September 1862.
93. ibid., 11 September 1862. See also Jean Usher. William Duncan of Metlakatla: A Victorian Missionary in British Columbia. (Ottawa; National Museums of Canada, 1974), p. 64.
94. idem.
95. Province of British Columbia. Queen Charlotte Islands. British Columbia Heritage Series No. II, Vol. 1. (Victoria, BC: British Columbia Department of Education, 1953).
96. Gowlland. loc. cit., 17 September 1862.
97. ibid., 18 September 1862.
98. Richards' letter to Maitland of 24 September 1862 claims the Indians were of the "Keenakangeak" tribe.
99. C.C. 1215 Richards to Maitland, 24 September 1862.
100. Gowlland. loc. cit., 18 September 1862.
101. Tribal assistance was necessary to the British if they expected to apprehend the culprit, as the island was large and thickly wooded. See Richards to Maitland, 24 September 1862, idem.
102. C.C. 1215. Richards to Maitland, 24 September 1862.
103. Gowlland. loc. cit., 23 September 1862.
104. C.C. 1215. Richards to Maitland, 24 September 1862.
105. Gowlland. loc. cit., 25 September 1862.
106. ibid., 25 September 1862.
107. The Stikeen mining districts did not always produce millionaires. HMS Hecate and Devastation each had twenty destitute miners aboard for passage to Victoria, since they could not afford the fare otherwise.
108. C.C. 1215. Richards to Douglas, 25 September 1862.
109. Gowlland. loc. cit., 25 September 1862.
110. ibid., 25 September 1862. See also Walbran. British Columbia Coast Names. op. cit., p. 157. The name "Duncan Bay" was originally confirmed for Admiralty charts by Richards in honour of Duncan the missionary. However, according to the diary of Dr. Tolmie, the bay had been originally named for Captain Alexander Duncan of the Hudson's Bay Company vessel Dryad by his fellow officers in 1834. Walbran argues that the Richards' intent was to commemorate the memory of both men.
111. idem.
112. Walbran. op. cit., pp. 336-337.
113. Gowlland. loc. cit., 25 September 1862.
114. C.C. 1215. Richards to Douglas, 27 September 1862.
115. idem.
116. C.C. 1215. Richards to Douglas, 28 September 1862. See also Idem.

Samuel Marsden and Petitioners to Richards, 28 September 1862. The letter to Richards requesting Alam-la-ha's release was written by one of Duncan's Tsimshian pupils, and is worth quoting in full:

Dear Sir. Our hearts always cry now Sir Because Alamlahkah not long will die on the ship. Sir god will pity Poor old Alamlahkah. Our hearts will very fear if he died on the ship. Sir pity us. If you will let poor old Alamlahkah stop with us sir. We will not forget Loodzaecheesh, bad man. We do not want him again Sir. We will try to catch him when we see and give him to you. He cannot be saved where he go. If he got any place not long we know. Not long he escape. Soon we get him: Please Sir will you pity poor old Alamlahkah is the prayer of

Your Humble Servants,

(signatures marked by an "X" next to printed name).

CONCLUSION

When HMS Hecate steamed for England in December 1862, it closed an important chapter in the history of British Columbia. Richards and the hydrographic surveyors had charted the circumference of Vancouver Island and most of the inland passage. They had shed light on what was then one of the most remote corners of the world, policed its frontiers, and aided in the civil and commercial development of the two colonies.

In June 1862, Richards reported to Douglas that the marine information disseminated by the hydrographic survey would "lessen the frequency of disasters which have annually befallen vessels navigating that boisterous newfoundland."¹ As the British Colonist reported in December 1862:

Every Nook and cranny of our coast has been explored and mapped; every current has been marked; an excellent compendium of sailing directions published by Capt. Richards making the navigation of our waters easy. In fact it is due to Capt. Richards and his officers... that the first thorough survey of our waters has been made... Harbours or Inlets had been marked on our island which never existed and large sheets of water that did exist were unknown. All this the Hecate's survey have settled definitely and correctly.²

After seven years at sea, they had charted more than 5,000 miles of coastline.³ By 1926, Richards' charts were still the only ones available for the entire west coast of Vancouver Island, except Quatsino Sound, and more than fifty percent of the lower mainland from Point Roberts to Cape Caution. The Northwest coast had become a smaller place due to Richards' facility in unraveling its hidden mysteries, but it had become a safer place as well, and thus one where one could now settle, travel, and earn their bread on permanently charted waters.

In 1863, Richards was appointed to the post of Admiralty Hydrographer where he would put his indelible mark on the development of British hydrography. The 1860's saw a rapid extension of commerce in all parts of the world. Accordingly, there was an increased worldwide demand for British Admiralty charts and the Hydrographic Office was expanded to meet

the new requirements.⁴

Richards greatest legacy was the expedition of HMS Challenger. At the request of the Royal Society, permission was granted by the Admiralty to launch the expedition in 1872. The laying of the Atlantic telegraphic cable was the main impetus behind the infant science of oceanography. It fell to Richards "to meet the growing interest in the deep oceans beyond the continental shelf which the laying of cables had aroused."⁵ Richards retired from the Navy in 1874 and became Managing Director of the Telegraph Construction and Maintenance Company for the next twenty years.⁶ During his time, the company laid 76,000 miles of submarine cable.⁷

In 1870, the British Admiralty declared the survey of British Columbia and Vancouver Island closed, thus bringing to an end the "preliminary surveys" of the Northwest coast.⁸ Neither the surveys nor their charts were perfect, and many unseen dangers were overlooked. In 1862, the flagship HMS Bacchante went aground in Esquimalt harbour as a result of an engraving error at the Hydrographic Office.⁹ In 1892, the passenger liner Parthia grounded on an uncharted rock in Burrard Inlet. In 1931, HMCS Thiepval struck a pinnacle rock on the west coast of Vancouver Island and sank. Despite the magnitude of the hydrographer's task, the price of error could be catastrophic.

The central mover and catalyst for action in the survey of the Northwest coast was Richards. He spearheaded exploration missions to aid the future settlement and exploration of the colonies, and concentrated his surveying efforts on canals and harbours that showed the greatest potential for commercial development.

The Water Boundary Commission assisted in the diplomatic settlement of the border question between the United States and the British possessions

on the west coast, and played a crucial rôle in the resolution of the controversy over the San Juan Islands. In addition, with the absence of a local authority capable of dealing with the problems of law and order and territorial sovereignty, the survey ships served as a crucial stabilising force on the distant frontier.

Significant historical events interrupted the Water Boundary Commission and the hydrographic survey while carrying out their mandate to survey the waterways of British Columbia and Vancouver Island. The survey vessels were frequently called from their duties to maintain law and order in the colonies or to assert British territorial sovereignty, as well as for other civil duties. Despite these interruptions, Richards succeeded in opening the waterways to increased marine traffic and reducing the number of shipwrecks on the Northwest coast.

Assistance was rendered to the colonial government in a variety of marine matters. Richards spearheaded the construction of lighthouses at Race Rocks and Fisgard Island, and thus made Esquimalt and Victoria harbours navigable at night.¹⁰ He established a system of buoyage in the Fraser River in 1859, and a Sand Heads lightship was established on his recommendation in 1866. A pilotage service was established and recommendations made on wharf installations, harbour limits, appointment of harbour masters, and instructions to lightkeepers.¹¹ In addition, Plumper's officers explored the unknown interiors of Vancouver Island and the mainland on behalf of the colonial government, and brought back much valuable information on previously unknown areas of the colony.

The security of Vancouver Island depended on convincing the tribes that it was in their best interest to obey the Queen's law.¹² Richards believed that in most cases of racial unrest, it was the Indians, not the

white man, who were "the oppressed and injured parties."¹³ Natives were victims of illicit alcohol sold by the White man, against whom they had no means of recourse, and violence was the inevitable result.¹⁴ The key to security, Richards believed, rested in education, not armed force; thus, a missionary such as William Duncan could do more for the safety of the colonies than a squadron of ships.

The threat of force rarely intimidated the coastal tribes. In 1860, the Kwakiutl at Fort Rupert were prepared to resist the combined forces of HMS Hecate and Devastation to the death. "The very decided stand they made in the presence of a force that they constantly acknowledged could destroy them all in a few moments," Richards wrote, "convinced me that it is the wisest course to lead and teach these people."¹⁵ Missionaries, Indian agents, and Magistrates were required to stop the liquor trade and protect "the Indian against the White man."¹⁶

However, the Royal Navy could not enforce the law indefinitely for the colonial government; it was essential that this task be borne by a civil authority which had the power to enforce the law on Natives, settlers, and miners alike. After 1890, the Royal Navy ceased to carry out police action against the coastal tribes, since the expansion of Dominion jurisdiction had rendered its intervention in Indian affairs unnecessary.¹⁷

The hydrographic surveyors acted as the emissaries of both "formal" and "informal empire." Vancouver Island and British Columbia were unique hybrids of the two economic systems; both had been declared crown colonies in 1849 and 1858, but were still dominated politically and economically by the Hudson's Bay Company. It was therefore the secondary economies of the HBC and the strategic demands of Empire that dictated Richards' survey priorities.

"Always the Hydrographer is ultimately the servant of the merchant, and is indentured to the needs of the future," observed Sandilands. "In time of war only, are the demands of the commerce pushed aside and the chartmaker concerned merely with present and pressing needs."¹⁸ "The labours of the surveyor have always been and always must be the precursor of commerce," echoed Richards:¹⁹

There are wide fields for geographical and scientific research in other regions, by which the whole human race would be gainers and through England, as she is bound to do, does more than any other nation in such work, she is very far in these respects from fulfilling her mission; hundreds of her national ships plough the ocean in time of peace, their almost sole occupation the training and preparation for war, and in the very nature of things, as far as scientific research is concerned, they leave no deeper mark than the track which the sea obliterates behind them, while the few - too few - grudgingly appropriated from the largest Navy in the world place their ineffaceable stamp on works of usefulness which last for ever.²⁰

However, the financial constraints of the Admiralty has been a constant theme throughout the history of British hydrography. As Ritchie wrote: "the work of the hydrographer is tied directly to the commercial requirements of whatever power is footing the bill for this work, which is always expensive and time consuming."²¹

Scientific enquiry was a low priority for the British Admiralty. Endeavours such as the Challenger expedition and polar exploration were rare since they could have no practical application for the fleet. Unless there existed a discernible practical gain, such as that which flowed from the establishment of the Board of Magnetism, funding from the Admiralty would not be forthcoming.²² In the case of British hydrography, an area had to be sufficiently well travelled by commercial vessels or men-of-war to make it worth the cost of the survey before the Admiralty would authorize the use of funds.

Thus, despite the loss of some Gulf Islands, the surveyors contributed

more to encouraging the settlement of this remote coast and preventing its loss by force of arms through their dissemination of information than force of arms itself would have, and in the process "left a worthy memorial of their toils" by providing vital hydrographic information that was of crucial use to all, whether civil or military, British or foreign. Power to preserve the pax britannica required knowledge. The ships of the Royal Navy Surveying Service and officers like Richards were little noticed but vital links in providing and translating that knowledge throughout the steel framework of empire.

NOTES

1. C.C. 1215. Richards to Douglas, 20 June 1862.
2. The British Colonist, November 24, 1862.
3. Parizeau, "Hydrographic Survey of the Northwest Coast of British North America," op. cit., p. 18.
4. Filmore and Sandilands. op. cit., p. 241.
5. Ritchie. "Great Britain's Contribution to Nineteenth Century Hydrography," op. cit., p. 10. Marine growths on recovered cables indicated forms of life at great depths hitherto unsuspected," added Ritchie. For this purpose, Richards arranged the cruises of HM Surveying Ships Lightning and Porcupine in northern waters with naturalists aboard to observe this phenomena.
6. idem. The Telegraphic Construction Company laid the first successful cable from Brunel's Great Eastern in 1866.
7. Ritchie. The Admiralty Chart. op. cit., p. 321. To facilitate their work the Lukacs wire sounding machine was developed in both hand and steam operated models increasing the speed at which soundings could be taken and making the charting of the world's oceans a possibility.
8. Padfield. op. cit., p. 129.
9. Day. op. cit., p. 80. The threat of grounding was always an operational risk for survey ships, and both Plumper and Hecate received more than their due in this regard, fortunately without loss of life.
10. Ritchie, "Great Britains Contribution to Nineteenth Century Hydrography," op. cit., p. 10.
11. idem.
12. Gough. op. cit. Gunboat Frontier., pp. 70-71.
13. ibid., p. 80.
14. ibid., p. 82. The tribe wanted revenge for the killing of their tribesman A-kush-ma in Victoria by the local Songhees tribe.
15. idem.
16. idem.
17. Gough. Gunboat Frontier. op. cit., p. 210.
18. Filmore and Sandilands. op. cit., p. 242.
19. Padfield. op. cit., pp. 128-129.
20. Padfield. op. cit., p. 129. See also Ritchie, "Great Britain's Contributions to Nineteenth Century Hydrography," op. cit., pp. 10-11.
21. Ritchie. op. cit. The Admiralty Chart., p. 314.
22. John Noble Wilford. The Mapmakers. (New York; Alfred A. Knopf, 1981), p. 159.

Primary Sources Cited and Consulted

British Columbia Archives and Records Service, Victoria, BC.

British Columbia Papers Extracts.
Colonial Correspondence; Admiralty file; F Series, Ship's Letters; Colonial Secretariat file; G.H. Richards file.
Frederick Victor Longstaff Collection.
Journal of John Thomas Gowlland, 1858-62.
Journal of Richard Charles Mayne, 1858-60.
Memoirs of Capt P. Hankin, R.N.
Papers of E.P. Bedwell, 1857-60.
Papers of Captain James T. Walbran.
Papers of Charles Bedingfield Wood, M.D., 1858-59.
Selected Admiralty Materials: Pacific Station Records, Vancouver Island and Queen Charlotte Islands, Vol. II, 1857-60; Hydrographic Instructions from Capt. John Washington, Admiralty Hydrographer, to Capt. G.H. Richards, R.N., 1856.

Maritime Museum of British Columbia, Victoria, B.C.

Esquimalt Naval Establishment Records, 3 vols, 1862-1905.
Log of HMS Havannah, 1858.
"Extracts from the the Esquimalt Naval Establishment Records," 1862-81, A.S. Troubetzkoy, Typescript, undated.

National Archives of Canada, Ottawa, Ont.

Adm. 155/1. Station Records: Pacific, Indexes to Correspondence, 1893-1903 (microform).
Admiralty Pacific Station Records, Vols. 37-39; Correspondence and Reports relating to San Juan Island, 1859-72 (microform).

University of British Columbia Library, Vancouver, BC.

C.O. 305/8-19. Original Correspondence, Vancouver Island (microform).
C.O. 60/1-8. Original Correspondence, British Columbia (microform).
Pacific Station Records; Vancouver's Island and Queen Charlotte Islands, 1857-59 (microform).
Ships' Dossiers of Adm. P.W. Brock. R.N.
"Adm. James Charles Prevost in British Columbia," unpublished manuscript by Gerald Prevost, 1977.

Published Primary Sources Cited and Consulted

Newspapers

The British Colonist, Victoria, B.C., 1858-62.

Victoria Gazette, 1858-59.

Published Contemporary Accounts, Memoirs and Correspondence

Archives of British Columbia. Memoir No. IV. House of Assembly Correspondence Book August 12th, 1856, to July 6th, 1859. Victoria, BC: King's Printer, 1918.

Egerton, Mary A. Admiral of the Fleet Sir Geoffery Phipps Hornby, G.C.B., A Biography. Edinburgh: Wm. Blackwood & Sons, 1896.

Mayne, Richard Charles. Four Years in British Columbia and Vancouver Island: An Account of their Forests, Rivers, Coasts, Gold Fields, and Resources for Colonization. London: John Murray, 1862.

Mayne, Richard Charles, "Report on a Journey in British Columbia in the Districts Bordering on the Thompson, Fraser and Harrison Rivers," Journal of the Royal Geographical Society, XXXI (1861).

Mayne, Richard Charles, "Route in Exploring a Road from Alberni to Nanaimo," Journal of the Royal Geographical Society, XXXI (1862).

Mayne, Richard Charles, "Sketch of the Country between Jervis Inlet and Port Pemberton," Journal of the Royal Geographical Society, XXXI (1861).

Smith, Dorothy Blakey (ed.), "The Journal of Arthur Thomas Bushby, 1858-1859," British Columbia Historical Quarterly, Vol. 21, Nos. 1-4, January 1957 to October, 1958.

Smith, Dorothy Blakey (gen. ed.). Lady Franklin visits the Pacific Northwest: Extracts from the Letters of Sophia Cracroft, February to April 1861 and April to July 1870. Victoria, B.C.: Provincial Archives of British Columbia Memoir No. XI, 1974.

Stanley, George F.G. Mapping the Frontier: Charles Wilson's Diary of the Survey of the 49th Parallel, 1858-1862, while Secretary of the British Boundary Commission. Toronto: MacMillan of Canada, 1970.

Richards, George Henry, Vancouver Island Pilot: Sailing Directions for the Coast of Vancouver Island and British Columbia. London: Hydrographic Office, Admiralty, 1861.

Parliamentary Papers and Reports

Great Britain, Parliament. Papers Relative to the Affairs of British Columbia. 1859-60, Part I, XVII (Cmd. 2476); Part II, session II (Cmd. 2578); Part III, XLIV (Cmd. 2724); Part IV, XXXVI (Cmd. 2952).

Great Britain, Parliament. Papers Relative to the Discovery of Gold on Fraser's River. 1859 (cmd. 2398, 1st ser.).

Smith, J. H. et al. British Parliamentary Papers: North American Boundary Line, Vol. 3. Shannon: Irish University Press, 1971.

Secondary Sources Cited and Consulted

Articles in Books and Periodicals

Bartlett, "The Mid-Victorian Reappraisal of Naval Policy," in K. Bourne and D.C. Watt (eds.), Studies in International History: Essays Presented to W. Norton Medlicott, (London; Longman's, Green & Co., 1967).

Bourne, Kenneth, "British Preparations for War with the North, 1861-1862," English Historical Review, No. CCCI (October 1961).

Burns, Flora Hamilton, "The Exploits of Lieut. Mayne, R.N.," The Beaver, Autumn 1958.

Campbell, Tony, "Episodes from the Early History of British Admiralty Charting," The Map Collector, No. 25, December 1983.

Friesach, Carl, "Gold Rush on the Fraser," The Beaver, Spring 1958.

Gallagher, John and Ronald Robinson, "The Imperialism of Free Trade," Economic History Review, 2nd. ser., Vol. VI (1953).

Gough, Barry M., "British Policy in the San Juan Boundary Dispute 1854-72," Pacific Northwest Quarterly, April 1971.

Gough, Barry M., "Keeping British Columbia British: The Law and Order Question on a Gold Mining Frontier," The Huntington Library Quarterly, Vol. 38, No. 3, May 1975.

Gough, Barry M., "Sea Power and Canada: The Long View of History," Canadian Defence Quarterly, Vol. 20, No. 3, December 1990.

Gough, Barry M., "Send a Gunboat! Checking Slavery and Controlling Liquor Traffic among Coast Indians of British Columbia in the 1860's," Pacific Northwest Quarterly, Vol. 69, No. 4, Oct. 1978.

Gough, Barry M., "The Records of the Royal Navy's Pacific Station," Journal of Pacific History, IV (1969).

Gough, Barry M., "Turbulent Frontiers and British Expansion: Governor James Douglas the Royal Navy, and the British Columbia Gold Rushes," Pacific Historical Review, Vol. 41, No. 1, February 1972.

Haslam, D.W., "The British Contribution to the Hydrography of Canada," The International Hydrographic Review, LXI (1), January 1984.

Lamb, W. Kaye, "Correspondence Relating to the Establishment of a Naval Base at Esquimalt, 1851-57," British Columbia Historical Quarterly, Vol. VI, No. 4, October 1942.

Lamb, W. Kaye, "S.S. Beaver," The Beaver, Winter 1958.

Long, John W., "The Origin and Development of the San Juan Island Boundary

Controversy," Pacific Northwest Quarterly, Vol. 43 (1952).

Longstaff, Frederick V., "The Centenary of the Pacific Station, 1837 - 1937," British Columbia Historical Quarterly, III (1939).

Longstaff, Frederick Victor, "The Beginnings of the Pacific Station and the Esquimalt Royal Naval Establishment," British Columbia Historical Association Third Annual Report and Proceedings, November 1925.

MacDonagh, Oliver, "The Anti-Imperialism of Free Trade," Economic History Review, Vol. XIV (1962).

Morris, R.O., "Surveying Ships of the Royal Navy from Cook to the Computer Age," Mariner's Mirror, Vol. 72, No. 4 (November 1986).

McCook, James, "Ned McGowan's War," The Beaver, Summer 1958.

Parizeau, Henry D., "Hydrographic Survey of the Northwest Coast of British North America from Earliest Discoveries to the Present Time," British Columbia Historical Association Fourth Annual Report and Proceedings, October 1929.

Parry, Sir John, "An Historical Sketch of the Exploration and Survey of the Waters of British Columbia," Hydrographic Annual for the Year 1913.

Ritchie, George Stephen, "Great Britain's Contribution to Hydrography ,in the Nineteenth Century." Journal of the Institute of Navigation, Vol. 20, no. 1, January 1967.

Sage, Walter N., "The Birth of British Columbia," The Beaver, Spring 1958.

Sandilands, Robert W., "The History of Hydrographic Surveying in British Columbia." The Canadian Cartographer, Vol. 7, no. 2, December 1970.

Sandilands, Robert W., "The History of Hydrographic Charting and Oceanography on the West Coast of Canada from the Eighteenth Century to the Present Day," Proceedings of the Royal Society of Edinburgh, (B), Vol. 73, No. 9, 1971/72.

Seaborg, Harold J., "The First West Coast Charting Surveys: Early Explorers and Navigators," The Sea Chest, Vol. 24, No. 2, December 1990.

Smith, Dorothy Blakey, "The First Capital of British Columbia: Langley or New Westminster ?" British Columbia Historical Quarterly, Vol. XXI, Nos. 1-4, January to October, 1957-58.

Van Alstyne, Richard W., "International Rivalries in the Pacific Northwest," Oregon Historical Quarterly, Vol. 46 (1945).

Newspapers

The Columbian, 1970.

Highway News Review, 1966.

New Westminster Times, 1969, 1970.

North Shore Review, 1946.

Times of London, 1896.

Vancouver Daily Province, 1936, 1943.

Victoria Daily Times, 1969.

Victoria Colonist, 1958, 1963.

Bibliography

Akrigg, G. P. V. and Helen B. Akrigg. British Columbia Chronicle 1847-1871. Vancouver: Discovery Press, 1977.

Akrigg, G.P.V. and Helen B. Akrigg. H.M.S. Virago in the Pacific 1851 to 1855: To the Queen Charlottes and Beyond. Victoria, BC: SonoNis Press, 1992.

Bartlett, C.J. Great Britain and Sea Power 1815 - 1853. London: Clarendon Press Oxford, 1963.

Blewitt, Mary. Surveys of the Sea: A Brief History of British Naval Hydrography. London: McGibbon & Kee, 1957.

Bonnet, Stanley. The Price of Admiralty: An Indictment of the Royal Navy 1805 - 1966. London: John Hale, 1968.

Clowes, William Laird. The Royal Navy: A History from the Earliest Times to the Death of Queen Victoria. Volumes VI-VII. London: Sampson Low, Marston & Co., 1903.

Dawson, Llewellyn Stiles. Memoirs of Hydrography between the Years 1750 and 1885. 2 volumes. Eastbourne: Henry W. Keay, The Imperial Library, 1885.

Day, Archibald. The Admiralty Hydrographic Service 1795 - 1919. London: Her Majesty's Stationery Office, 1967.

Edgell, Sir John. Sea Surveys: Britain's Contribution to Hydrography. London: HMSO for the National Maritime Museum, Greenwich, 1965.

Fanning, A.E. Steady as She Goes: A History of the Compass Department of the Admiralty. London: Her Majesty's Stationery Office, 1986.

Farrel, Barbara and Aileen Desbarats (gen. eds.). Explorations in the History of Canadian Mapping: A Collection of Essays. Ottawa: Association of Canadian Map Libraries and Archives, 1988.

Farrington, L. "The Versatile Beaver: Her Majesty's Ship Beaver Charts the Seas, 1863-1870." Typescript in Provincial Archives, Victoria, B.C., 1958.

Fillmore, Stanley and Robert W. Sandilands. The Chartmakers: The History of Nautical Surveying in Canada. Toronto: NC Press Ltd., 1983.

Fisher, Robin. Contact and Conflict: Indian-European Relations in British Columbia, 1774 - 1890. Vancouver: University of British Columbia Press, 1977.

Fisher, Robin. Vancouver's Voyage: Charting the Northwest Coast, 1791 - 1795. Seattle: Douglas & McIntyre, 1992.

Friendly, Alfred. Beaufort of the Admiralty: The Life of Sir Francis Beaufort

1774-1857. London: Hutchinson & Co., 1977.

Gardiner, Leslie. The British Admiralty. Edinburgh & London: Wm. Blackwood & Sons, 1968.

Gough, Barry M. Distant Dominion: Britain and the Northwest Coast of North America, 1579 - 1809. Vancouver: University of British Columbia Press, 1977.

Gough, Barry M. Gunboat Frontier: British Maritime Authority and the Northwest Coast Indians, 1846-90. Vancouver: University of British Columbia Press, 1984.

Gough, Barry M. The Northwest Coast: British Navigation, Trade and Discoveries to 1812. Vancouver: University of British Columbia Press, 1992.

Gough, Barry M. The Royal Navy and the Northwest Coast of North America 1810-1914. Vancouver: University of British Columbia Press, 1971.

Hearnshaw, F.J.C. Sea Power & Empire. London: George C. Harrap & Co., 1940.

Howay, F.W. and E.O.S. Scholefield. British Columbia from the Earliest Times to the Present. 4 Vols. Vancouver: S.J. Clark, 1914.

Hutchinson, Bruce. The Fraser. Toronto: Clarke, Irwin & Co., 1950.

Johansen, Dorothy and Charles M. Gates. Empire of the Columbia: A History of the Pacific Northwest. New York: Harper & Row, 1957.

Kennedy, Paul M. The Rise and Fall of British Naval Mastery. London: Allen Lane, 1976.

Lloyd, Christopher. The British Seaman 1200-1860: A Social Survey. London: Collins, 1968.

Lloyd, Christopher. The Nation and the Navy: A History of Naval Life and Policy. London: The Cresset Press, 1954.

Longstaff, Frederick Victor. Esquimalt Naval Base: A History of its Work and its Defences. Vancouver: Maj. F.V. Longstaff (printed by Clarke & Stuart Ltd), 1941.

McCabe, James O. The San Juan Water Boundary Question. Toronto: University of Toronto Press, 1964.

McGrigor, Rhoderick. Charting the Seas in Peace and War; The Story of the Hydrographic Department of the Admiralty 1795 to 1945. London: HMSO, 1947.

Miller, Hunter. San Juan Archipelago. Bellow's Falls, Vermont: Wyndham Press, 1943.

- Murray, Keith A. The Pig War. Tacoma: Washington State Historical Society, 1968.
- Ormsby, Margaret. British Columbia: A History. Vancouver, MacMillan of Canada, 1958.
- Padfield, Peter. Rule Britannia: The Victorian and Edwardian Navy. London: Routledge & Kegan Paul, 1981.
- Paterson, T.W. British Columbia Shipwrecks. Langley, BC: Stagecoach Publishing, 1976.
- Preston, Anthony and John Major. Send a Gunboat! A Study of the Gunboat and its Role in British Policy, 1854-1904. London: Longmans, Green and Co., 1967.
- Province of British Columbia. Queen Charlotte Islands. British Columbia Heritage Series No. II, Vol. 1. Victoria, BC: British Columbia Department of Education, 1953.
- Rasor, Eugene L. Reform in the Royal Navy: A Social History of the Lower Deck 1850 to 1880. Hamden, Conn.: Archon Books, 1976.
- Ritchie, George Stephen. Challenger. London: Hollis & Carter, 1957.
- Ritchie, George Stephen. The Admiralty Chart: British Naval Hydrography in the Nineteenth Century. London: Hollis & Carter, 1967.
- Robinson, A.H.W. Marine Cartography in Britain: A History of the Sea Chart to 1855. Oxford: Leicester University Press, 1962.
- Rodger, N.A.M. The Admiralty. Lavenham, Suffolk: Terence Dalton Ltd., 1979.
- Scott, James W. (gen. ed.). Pacific Northwest Themes: Essays in Honour of Keith A. Murray. Bellingham, 1978.
- Semmel, Bernard. Liberalism and Naval Strategy: Ideology, Interest, and Sea Power during the Pax Britannica. Boston: Allen & Unwin, 1986.
- Shiels, Archie W. San Juan Islands: The Cronstadt of the Pacific. Juneau, Alaska: Empire Printing Co., 1938.
- Stokesbury, James L. Navy and Empire. New York: Wm. Morrow & Co., 1983.
- Usher, Jean. William Duncan of Metlakatla: A Victorian Missionary in British Columbia. Ottawa: National Museums of Canada, 1974.
- Walbran, John T. British Columbia Coast Names 1592-1906. Vancouver: J. J. Douglas, 1971.
- Weber, Gustavus A. The Hydrographic Office: Its History, Activities and Organization. Baltimore: Johns Hopkins Press, 1926.

Wilford, John Noble. The Mapmakers. New York: Alfred A. Knopf, 1981.

Wood, John Cunningham. British Economists and the Empire. London: Croom Helm, 1983.

Wright, E.W. Lewis & Dryden's Marine History of the Pacific Northwest. New York: Antiquarian Press, 1961.

Theses

Usher, Jean. "William Duncan of Metlakatla: A Victorian Missionary in British Columbia," Ph.D. thesis, University of British Columbia, 1969.