

# **"Of Consequence to the Service:" The Rationale Behind Cartographic Surveys in Early Eighteenth-Century Newfoundland'**

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This essay examines two cartographic surveys carried out during the eighteenth century on the southern coast of Newfoundland. The surveys were conducted ostensibly for the benefit of trade and commerce. It is the contention of this paper, however, that of equal importance in the decision to commission the expeditions were questions of sovereignty. The two surveys — by William Taverner (1714-1715) and Lt. John Gaudy (1716) — were immediate responses to the dramatic changes that followed the Treaty of Utrecht (1713), by which France conceded British sovereignty over all of Newfoundland and gave up the right to maintain any permanent settlement there. As the French withdrew, the British moved swiftly to establish their authority in Placentia Bay, St. Pierre, and the south coast of the island. The reluctance of British fishermen to move into the region, together with evidence that French fishing and commerce persisted there, contributed to the urgency of the surveys.

The issue of sovereignty in Newfoundland, and hence the desire for cartographic clarification, arose primarily because until the eighteenth century no single country claimed exclusive control over the island. Since its beginnings early in the sixteenth century, the Newfoundland fishery had been an international activity, attracting French, Portuguese, Basque, English, and Dutch fishing and trading vessels.<sup>2</sup> By the second half of the seventeenth century, however, English and especially French fishermen were the only significant participants.<sup>3</sup> The fishing crews of both nations had established themselves in fairly specific regions by then as well. Thus, the English dominated the Avalon Peninsula from Cape Race to Cape Bonavista (the so-called "English Shore"); French fishermen predominated along the south coast, with a fortified settlement at Plaisance. There were also important installations on the island of St. Pierre, as well as the "Petit Nord," as the region between Cape St. John and Quirpon was known. For their part, fishermen from the Basque region of southwestern France made the west coast of the island their special preserve.<sup>4</sup>

The precise limits of these fishing zones had been established by custom long before emerging state machinery became involved. Indeed, throughout the seventeenth century, the English government adopted the position that the North American fisheries should be encouraged but not rigorously administered by the state. Though France established an outpost at Plaisance after 1660 to support the fishery, no attempt was made to extend the effective range of French authority beyond Placentia Bay.<sup>5</sup> This only began to change in the eighteenth century, as attitudes to the "state" itself took firmer shape. Under the influence

*The Northern Mariner/Le Marin du nord*, XI, No. 1 (January 2001), 1-10.

of mercantilism, both England and France began to regard the fisheries as strategic and economic assets of the first order. The strategic importance stemmed in part from the perception of the fishery as a "nursery for seamen," which not only employed thousands of landsmen every year but also transformed them into the kind of experienced mariners prized by navies in the event of war. In terms of direct employment, consumption of domestic goods and services, and the generation of a favourable balance of trade with other mercantile powers, the fishery was a source of great national wealth and, according to mercantilist logic, of great national power. As a result, the fishery was so highly prized by both countries that neither would willingly give it up, either in whole or in part. During attempts in 1761 to negotiate an end to the Seven Years' War, members of the British and French governments independently ventured the same opinion: that the Newfoundland fishery was more valuable than Canada and Louisiana combined "as a means of wealth and power."<sup>6</sup>

Notwithstanding the importance that Europeans attached to the fisheries by the late 1600s, there were surprisingly few charts of the island and almost none of particular bays or stretches of the coast. The French prepared some cartographic impressions of the island, giving predictable attention to Plaisance and Placentia Bay. There were, however, very few British charts. One noteworthy exception was the map compiled by Captain John Mason and published in 1624 – the first deliberate attempt to survey the Avalon Peninsula. Another was Southwood's map of 1677, published in John Thornton's *English Pilot* in 1689.<sup>7</sup> Nevertheless, at best, these were crude approximations of the island and of little use to navigation. In considerable measure, this reflected not disinterest but the existing limitations of scientific cartography. Indeed, it was not until 1675 that two noteworthy events – the founding of the Royal Observatory at Greenwich and the publication of the first English sea atlas, John Sellers' *Atlas Maritimus* – signalled that determined efforts were being made to improve the standards and extent of English knowledge of the oceans.<sup>8</sup> France, too, took steps to promote the quality and reliability of navigation and cartography, establishing a hydrographic office in 1720 even as navigation was being taught on both sides of the Atlantic. The immense hazards to navigation in the Gulf and River of St. Lawrence (likened by one early eighteenth-century traveller to "walking blind-folded and barefoot in a room of jagged glass") even inspired a major cartographic effort there in the 1730s.<sup>9</sup> Nevertheless, the output of the French hydrographic office was not impressive before mid-century. Meanwhile, the British did not even appoint a Hydrographer of the Navy until 1795, and the single greatest challenge to reliable oceanic navigation, namely the accurate measurement of longitude, would not be resolved until the last quarter of the eighteenth century.<sup>10</sup> And while ship masters were increasingly expected to have some familiarity with "scientific navigation," the fact remained that a master's chief guides were still, in the words of Ralph Davis, "dead reckoning with compass and log."

Small wonder, then, that cartography seemingly played so small a role in the voyages to Newfoundland. Charts did exist, but these were of lesser significance than familiarity with prevailing winds and ocean currents, the clues revealed by a sounding lead, and the knowledge acquired from those who had sailed a route before. Years of accumulated experience, earned through lengthy apprenticeship, not charts, governed the movement of merchant shipping at Newfoundland well into the eighteenth century.<sup>11</sup> Thus, in 1726, as soon as flocks of sea birds and pods of whales made their appearance during the voyage to St. John's of the Scottish merchantman *Christian*, the crew relied on the sounding lead to guide the ship to its landfall, despite the master's demonstrable ability to measure positions

on a chart." Nor was the master relying on his own experience, for he had never before been to Newfoundland. Rather, prior to departure he acquired the foreknowledge of the thousands of British mariners, passed on by word of mouth or in "waggoners" (sea charts valued more for their annotations than for their cartographic accuracy).<sup>14</sup> Only when such accumulated experience was lacking, when prior knowledge of a coast or its resources did not exist, did the mariner hesitate to proceed.

This was the situation facing British venturers in the Newfoundland fishery after 1713. Under the terms of the Treaty of Utrecht, the south side of the island, including the islands of St. Pierre and Miquelon, became British territory. France retained only fishing privileges on the so-called French Shore, which extended north from Cape Bonavista to Point Riche on Newfoundland's west coast.<sup>15</sup> All French civil and military authorities at Plaisance, together with most of the inhabitants, were therefore evacuated by 1714." Thus, in one fell swoop the British had greatly extended the theoretical territorial limits of their fishery. But while the authorities were convinced that the region was rich in fish and other desirable resources, everything to the west of Trepassy was *terra incognita* to British fishermen. Moreover, British authorities were cautioned that French merchants would not give up their lucrative investments in Newfoundland quite so easily, but would continue to trade clandestinely until British commerce pushed into the region." In a letter to Secretary of State Lord Stanhope, the Board of Trade (BT) concluded that "it is necessary there be a Survey made of the late French part of Newfoundland, for that thereby many good harbours & fishing Places may be discover'd w<sup>ch</sup> will encourage our Fishing Ships to resort thither, who are now unacquainted with that Coast."<sup>18</sup> In fact, British authorities commissioned not one but two surveys of Newfoundland's south coast immediately following the Treaty of Utrecht.

The first of these was undertaken by William Taverner, who was appointed by the BT in 1713 to conduct a survey of the coast west of Placentia. Taverner was a Newfoundland planter, merchant and shipowner who divided his time between Poole and his fishing operations in Trinity Bay.<sup>19</sup> He had connections with the London merchant community and had been involved on their behalf in developing a cod fishery on the northwest coast of Scotland during the later years of the War of the Spanish Succession. He also engaged in privateering against the more remote French outposts in Newfoundland during that war.<sup>20</sup> By 1712 he was submitting memoranda to the BT on French possessions in Newfoundland. Whether he had any training as a cartographer or surveyor is not known. What we can confidently assume he had in abundance was familiarity with the general conditions and specific hazards of sailing on the Newfoundland coast. Taverner was a seasoned ship master, undoubtedly familiar with the rudiments of chart making. More important, he had a practical understanding of navigation in those waters. As such, he was able to establish himself in the eyes of both merchants and officials in London as an authority on Newfoundland, on the cod fishery, and on the coastal region which the French began to vacate in 1713. To them, he was an obvious choice to undertake the survey so desired by the BT.

Taverner's instructions were quite clear: he was to survey the region and to take stock of its resources. Though Taverner later indicated that he made some maps, nothing in his instructions specifically required him to do so; the emphasis was on gathering information.<sup>21</sup> It was equally plain that his work was also intended to signal the assertion of British sovereignty in a region still being evacuated by the French.<sup>22</sup> Taverner was therefore to take a census and administer an oath of allegiance to any French inhabitants who wished

to remain in Newfoundland. Acting with commendable energy, he arrived at Placentia in late June 1714, but remained only long enough to prepare the *Tyger* galley, a vessel which John Moody, the garrison commander, had put to his use. On 27 July he set out for the island of St. Pierre (St. Peter's to the English), Bay d'Espoir and Hermitage Bay, returning to Placentia in September. It is clear that this was a fairly superficial reconnoitre of the region – he appears to have by-passed the inner recesses of Fortune Bay completely, and even in Hermitage Bay, he only visited Grole and "Isle Espere" (Pass Island). The time available to him simply did not permit a more extensive exploration of the South Coast. Though he prepared a detailed report on this initial survey for the BT, including a chart of "the islands and harbor of St. Peter's, with the island of Columba and the adjacent rocks," most of the anecdotal details were based on what he already knew before the survey began.<sup>23</sup>

Taverner next prepared to undertake a survey that would concentrate on Placentia Bay and the Burin Peninsula. Having determined by experience that the *Tyger* galley "sail'd badly" and that "a Shallop was absolutely Necessary for the Surveying of a great many Places," Taverner discharged *Tyger* and hired *Delore*, which he despatched to the tiny community of Burin to serve as a supply depot. He then set out in late October from Placentia in a shallop, working his way counter-clockwise around Placentia Bay until he met with his supply vessel at Little Burin on 12 December 1714. The onset of winter forced him to suspend any further work until the following year.

By March Taverner was clearly impatient to resume his survey. With the *Delore* still frozen in, he took the shallop on a brief foray around the Burin Peninsula as far as Grand Bank before rejoining his supply ship. It was at this point that the survey suffered three setbacks that put an end to Taverner's efforts. First, his boat was swamped on the rocky coast. Valuable supplies and equipment were lost, and his men, soaked by the icy waters, suffered from exposure, and one man endured frostbite. A worse disaster was the loss of *Delore*, just as it was released from the ice and was about to sail west in support of further surveying.<sup>24</sup> The most serious setback, however, came when Taverner made his way back to Placentia for further orders and, he hoped, another vessel, only to discover that Colonel Moody had complained to the senior naval officer there that Taverner had "wholly left off his Surveying" and was spending most of his time at St. Pierre "where he applys himself to fishing and merchandizing."<sup>25</sup> Taverner was ordered to discontinue his work and to return immediately to London, where he was to account for his activities.

In London Taverner appears to have satisfied the BT of the worth of his work even though he had only visited some of the areas he described. His reports stressed the region's abundant natural resources – the location and size of beaches which until the evacuation had supported French fishing stations, their proximity to productive fishing grounds, the ubiquity and quality of the timber – so suitable for "spans, Masts for Ships, very good Timber of all Sorts both for Boards and Plank" – and the plentiful game. Taverner clearly was impressed with the potential of the area. He declared "the very worst" of the fishing grounds and shore stations to be "better than our former English Settlements to the NEward," claiming that "one boat at St. Peters &ca. have taken as much fish...as Three boats at most of the former English Settlements."<sup>26</sup> Indeed, the island of St. Pierre, in his "humble Opinion...exceeds all the rest for Codfishing, its a good harbour, and beech might be made for 300 Boats." Yet Taverner also emphasized the dangers of this new and still unfamiliar coast, dangers which his own experiences had amply demonstrated.<sup>27</sup> Perhaps even more alarming were his claims that French ships making their way to Cape Breton Island had stopped at St. Pierre and

engaged in trade; that the handful of French fishermen who had sworn an oath of allegiance to the British crown in order to remain in Newfoundland had participated in that trade; and that people from the new French colony on Cape Breton Island were coming to Newfoundland during the winter to hunt and to trap for furs.

These were disturbing allegations for, if true, they suggested that British control over the newly acquired region was uncomfortably tenuous, perhaps even in jeopardy. The obvious solution to French encroachment on so valuable a territory was for British fishermen to push into the region in substantial numbers. This, however, had not yet happened, nor was it likely to do so in the foreseeable future, in Taverner's opinion. The region was simply not sufficiently well charted, he said, "wch at present deterrs the English from sending their Ships to Fish and Trade there."<sup>28</sup> Taverner had, of course, produced a couple of charts which, in the later opinion of the BT "have been of great use."<sup>29</sup> And he could not resist reminding the Board that had he been provided with another vessel and proper support after his return to Placentia "in all Probability, I might have brought home with me an Exact Chart from Cape Race to Cape Les Anguiles, or the Isles of St. George."<sup>30</sup> Yet Taverner's skills as a cartographer were questioned by some, and the value of his survey appears to have rested more with his resource inventory and commentary than with the quality of his charts.<sup>31</sup> There were also the accusations of Colonel Moody and others. British authorities therefore decided that the task of preparing a proper cartographic survey of the south coast would go to someone else. That person was John Gaudy, who served as a Midshipman Extra on *Worcester* in 1715 when that warship was stationed in Newfoundland. *Worcester's* captain and the commander of the Newfoundland station that year was Thomas Kempthorne, and it was he who brought Gaudy to the attention of his superiors for the young man's chart making skills?<sup>2</sup>

Kempthorne was an energetic officer who took his responsibilities in Newfoundland quite seriously. Thus, in contrast to most others who commanded on the Newfoundland station during the first half of the eighteenth century, his reports included exhaustive and perceptive observations, criticisms, and recommendations on the administration of the fishery.<sup>33</sup> Kempthorne had arrived at his own conclusions concerning the need to learn more about the former French regions of Newfoundland, for he had already given Gaudy "an opportunity of draughting the SE` part of [Newfoundland], and the harbours thereto belonging." Stressing that the region "has been by others very negligently & erroneously discribed," Kempthorne was convinced that "a true description" of that coast "is very much wanted by our Trade." He sent Gaudy back to London with the results of his surveying and a recommendation to the Admiralty that he be appointed to conduct a more extensive survey of the major fishing harbours on the south coast in the following year, adding that "there can't be recomended to their Lordships a person whose ability, and meritt, can better qualify him for that performance: and I doubt not but Sr Chals Wager will speake as large in his character."<sup>34</sup>

Whether it was because of Kempthorne's endorsement, his reference to the newly appointed Controller of the Navy, or perhaps simply the quality of Gaudy' s chart of "the Sea Coast of Newfoundland from ye Bay of Bulls to little Placentia," the recommendation was endorsed by the Admiralty. In the full conviction that "the Survey of these Coasts is of Consequence to the Service," Gaudy was appointed a lieutenant on HM Sloop *Swift* under Captain Thomas Durell in June 1716 and ordered to Newfoundland to carry out a cartographic survey "of its Coast and harbours thereto belonging."<sup>35</sup> To this end, *Swift* had

been supplied with an extra small boat, twelve to fourteen feet in length, an extra anchor and cable and enough old canvas to make an awning for the full length of the ship. As well, a cabin had been built for Mr. Gaudy "in the most convenient place for his purpose in the Steeridge of the said Sloop." Meanwhile, Gaudy visited the shop of John Bollinger to purchase the surveying equipment he required: a theodolite, a plane table, brass ruler and sights, a quadrant, a Gunter's chain with a large pair of compasses, a sector scale and protractor "with 2 pair compasses in a case," a large sextant with a telescope, and a rack and three-log staff. Of equal importance was a visit to the premises of Richard Mount and Company, where Gaudy purchased the paper his surveying and chart making would require. Finally, the Admiralty authorized a disbursement of £100, not only to pay for this equipment but also "for subsisting his Family in his Absence."<sup>36</sup> It must have been a welcome reversal of fortune for a man who one year earlier had faced an uncertain future as an unemployed naval lieutenant.

*Swift* got underway in late June and by early August made landfall at Cape Broyle, just south of St. John's. There was a brief delay in Trepassey harbour while the ship replenished its water and wood, and brewed a supply of spruce beer. The sloop-of-war then proceeded to St. Pierre, where Gaudy transferred to its yawl to begin his work.<sup>37</sup> For nearly a week, Gaudy was engaged in a survey of the former French island and its harbour, before *Swift* got underway once again and proceeded west as far as Ramea and Burgeo. Another week or so was spent surveying the coast in that neighbourhood before *Swift* began working its way east. Stopping for still more surveying work at Bay D'Espoir and Fortune Bay, Gaudy returned to St. Pierre and then went on into Placentia Bay, following the coast of the Burin Peninsula, before arriving at Placentia on 2 October, where Gaudy's survey came to an end.

The two months since *Swift* arrived in Newfoundland had not passed uneventfully. For instance, there had been the incident involving the ship's carpenter, "a very fractious fellow & Mutinous Man," in Gaudy's masterfully understated opinion. During their visit to Trepassey, the carpenter became drunk and abusive, going so far as to threaten Captain Durell with a broadsword.<sup>38</sup> Later, *Swift* captured a boat-load of soldiers who had deserted from the garrison at Placentia and were making for Cape Breton Island when they were driven ashore in St. Pierre.<sup>39</sup> And from time to time, the crew was allowed ashore to hunt for caribou and geese. For the most part, however, Gaudy's work was routine, even tedious. It was rendered all the more so when (as was frequently the case) the weather turned "very foggy, Raining & blowing" and slowed his work. Still, Durell (and presumably Gaudy) were pleased by the summer's labours. As Durell explained to Admiralty Secretary Josiah Burchett, the first month's efforts alone had resulted in "a Compleat Draft of this Coast from [Burgeo] to [St. Pierre], with the Harbours & Islands <sup>wch</sup>are many fitt for the fishery, & not taken Notice of in any Charts before, nor Known by our Traders."<sup>40</sup>

Whether Gaudy's survey – or Taverner's, for that matter – had the desired effect is difficult to determine. Placentia would eventually develop in the 1730s into the centre of a thriving migratory ship fishery based in the ports of North Devon. But throughout the 1720s, British fishermen remained reluctant to push into the region, so that government continued to express concern at the rate of growth.<sup>41</sup> And notwithstanding continued reports that French fishermen persisted in visiting the south coast, and that French merchants were trading in the region, the British lacked the resources to patrol the coast west of St. Pierre and the Burin Peninsula.<sup>42</sup> The surveys of William Taverner and John Gaudy were both intended to open

Placentia Bay and the south coast to British exploitation, and, by promoting a British presence there, to assert British sovereignty. Instead, both Taverner's and Gaudy's charts appear to have vanished. Not until James Cook's cartographic survey of the south coast would detailed charts of the region be made widely available for mariners.

Until then, Taverner and Gaudy exemplified the two major influences guiding early eighteenth-century navigation and cartography. Taverner was the embodiment of the practical sailing master. Experienced with the characteristically difficult conditions in Newfoundland waters, he relied more on instinct and accumulated judgement than on instruments and mathematical measurement. Indeed, the only navigational device mentioned in his reports was an azimuth compass, lost when his shallop was swamped in April 1715. In contrast, Gaudy was a naval officer, junior in rank if not in years, and an accomplished cartographer. Skilled with the instruments of his day, he knew how to translate their measurements into accurate charts. That both men were employed to survey the same stretch of coast within a year of each other should not be perceived as evidence of bureaucratic redundancy. Rather, this points to two not entirely unrelated early eighteenth-century developments. First, we catch a glimpse of cartographic surveying in which two kinds of talents were highly valued, one practical and the other scientific. Second, these early efforts to survey the Newfoundland coast underscore the growing interest of mercantilist British officials in asserting sovereignty in a region deemed likely to have important commercial and strategic significance for the future.

#### NOTES

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1. This paper was presented at the Second International Congress of Maritime History in Amsterdam in June 1996. I am indebted to Drs. Jim Greenlee and Anna Leslie, who read an earlier draft and whose advice and suggestions were most useful. Any errors or omissions are, however, my own.

2. See John Mannion and Selma Barkham, "The 16th Century Fishery," in R.C. Harris (ed.), *Historical Atlas of Canada, I: From the Beginning to 1800* (Toronto, 1988), plate 22 (HAC).

3. The French fishery was roughly twice as large as its English counterpart. At its peak between 1678 and 1688, the French fishery employed 10,000 to 12,000 men (about one-quarter of the French maritime population) and over 400 vessels, producing more than 500,000 quintals annually during the 1680s, a time when the British fishery scarcely produced a fifth that amount; Laurier Turgeon,

"Colbert et la pêche française à Terre-Neuve," in Roland Mousnier (ed.), *Un Nouveau Colbert. Actes du Colloque pour le tricentenaire de la mort de Colbert* (Paris, 1985), 258; and Keith Matthews, "A History of the West of England–Newfoundland Fisheries" (Unpublished PhD thesis, Oxford University, 1968), 158-162 and 191.

5. For the English Shore, see Matthews, "History," 187; for the French domain, see John Mannion and Gordon Handcock, "The 17th Century Fishery," HAC, I, plate 23.

6. A succinct discussion of British policy appears in Sean Cadigan, *Hope and Deception in Conception Bay: Merchant-Settler Relations in Newfoundland, 1785-1855* (Toronto, 1995), 27-28. The first British parliamentary legislation to concern itself with the fishery at Newfoundland (10 and 11 Wm. III c. 25) was passed in 1699. Though France established a colony at Plaisance in 1660, its navy did not escort or supervise French fishing ships or patrol the "Petit Nord." John Humphreys, *Plaisance: Problems of Settlement at this Newfoundland Outpost of New France 1660-1690* (Ottawa, 1970); and Jean-François Brière, "The

Safety of Navigation in the French Codfishing Industry at Newfoundland in the 18th Century" (Unpublished paper presented at the Annual Meeting of the Canadian Nautical Research Society, Galiano Island, BC, July 1986).

6. The Board of Trade (BT) maintained that "the Newfoundland Fishery as a means of wealth and power is of more worth than both of the aforementioned provinces;" Gerald Graham, "Fisheries and Sea Power," Canadian Historical Association *Annual Report 1941*, reprinted in G.A. Rawlyk (ed.), *Historical Essays on the Atlantic Provinces* (Ottawa, 1967), 8. At approximately the same time, the French Minister of Marine, the Duc de Choiseul, insisted that "the codfishery in the Gulf of St. Lawrence is worth infinitely more for the realm of France than Canada or Louisiana." Cited in Max Savelle, *The Origins of American Diplomacy: The International History of Anglo-America, 1492-1783* (New York, 1967), 475n. See also Jean-François Brière, "Pêche et politique à Terre-Neuve au XVIIIe siècle; la France véritable gagnante du traité d'Utrecht?" *Canadian Historical Review*, LXIV, No. 2 (June 1983), 168-170.

7. "Cartography," *Encyclopedia of Newfoundland and Labrador* (St. John's, 1981), I, 372 (ENL); J.C. Beaglehole, *The Life of Captain James Cook* (Stanford, 1974), 63; and Rodney W. Shirley, "The Maritime Maps and Atlases of Seller, Thornton, and Mount and Page," *Map Collector*, LXXIII (Spring 1995), 2-9.

8. Ian K. Steele, *The English Atlantic 1675-1740: An Exploration of Communication and Community* (Oxford, 1986), 15.

9. James Pritchard, *Louis XV's Navy 1748-1762: A Study of Organization and Administration* (Montréal, 1987), 21; and Ken Banks, "'Lente et assez fâcheuse Traversée': Navigation and the Transatlantic French Empire, 1713-1763," in A.J.B. Johnston (ed.), *French Colonial Historical Society Proceedings* (Cleveland, 1996), 85.

10. Pritchard, *Louis XV's Navy*, 21; and G.S. Ritchie, *British Naval Hydrography in the Nineteenth Century* (New York, 1967; new ed.; Durham, 1995), 30.

11. Ralph Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries* (Newton Abbot, 1962), 123-125.

12. *Ibid.*, 117-118 and 123-125.

13. Scottish Record Office, Edinburgh, RH 9/14/102, "Journal of a Voyage to Newfoundland, in 1726-1727 kept by Edward Burd, Jr., supercargo." Burd recorded measurements of latitude and longitude following the ship's departure from Spain in 1727, but not during the earlier leg of the voyage from Scotland to Newfoundland; see daily entries throughout July 1726 and entries for March and April 1727. In all likelihood, the master calculated the ship's position at every stage of the voyage. Commenting on the challenge of navigating in Newfoundland waters, a passenger on the French *flûte Eléphant* observed in 1729 that "When, as is common in these waters, navigators are unable to take altitudes because of fog or bad weather, they are compelled to go under bare poles, and frequently even have to heave aback during the night; otherwise they would risk becoming stranded on these shores;" cited in Gilles Proulx, *Between France and New France: Life Aboard the Tall Sailing Ships* (Toronto, 1984), 64. A most dramatic illustration of the degree to which navigation in Newfoundland waters depended more on experience than science is provided by the experience of the French fleet under the Duc d'Enville in 1746 as it groped its way into North American waters with inadequate charts and too few pilots; see James Pritchard, *Anatomy of a Naval Disaster: The 1746 French Expedition to North America* (Montréal, 1995), esp. chaps. 4-6.

14. Davis, *Rise*, 123-124; and Shirley, "Maritime Maps," 2.

15. James K. Hiller, "The Newfoundland Fisheries Issue in Anglo-French Treaties, 1713-1904," *Journal of Imperial and Commonwealth History*, XXIV, No. 1 (January 1996): 1-23; and Brière, "Pêche et politique à Terre-Neuve," 168-187.

16. Jean-Pierre Proulx, *Placidia, Newfoundland* (Ottawa, 1979), 51-52 and 118-119. In 1713 the civilian population of French Newfoundland numbered about two hundred, a figure which would double were one to include the contract fishermen; Humphreys, *Plaisance*, 6. A small number of inhabitants were prepared to swear the English oath of allegiance and remain in Newfoundland. Proulx estimates that fifty to sixty people remained behind at Placentia after the evacuation. There were others in St. Pierre, the Burin Peninsula and Fortune and Hermitage Bays.

17. Great Britain, Public Record Office (PRO), Colonial Office (CO) 194/5, 117-117v, Moses Jacqueau to William Lownde, Treasury, 7 May



1714. Jacqueau predicted that French merchants would use English prize ships and hire English masters to front the continuation of their trade with Newfoundland.

18. PRO, CO 5, vol. 4i, fol. 28, BT to Secretary of State Stanhope, 10 March 1715.

19. David B. Quinn, "William Taverner," in George Brown, David Hayne and Frances G. Halpenny (gen. eds.), *Dictionary of Canadian Biography, Vol. 3: 1741-1770* (Toronto, 1974), 617-619 (DCB); Matthews, "History," 323; and Robert Cuff, "Taverner's Second Survey: Introduction," *Newfoundland Quarterly*, LXXXIX, No. 3 (Spring/Summer 1995), 9-10. Gordon Handcock, *Soe longe ds there comes noe women: Origins of English Settlement in Newfoundland* (St. John's, 1989), 47, refers to the Taverners as "one of the more remarkable pioneer families to have established themselves in Newfoundland."

20. PRO, CO 194/5, 109, Petition of William Taverner to Lord Oxford, Lord High Treasurer, no date, enclosed with Taverner to the Lords Commissioners for Trade and Plantations, 31 March 1714. Taverner expands on his privateering in Fortune Bay in PRO, CO 194/6, 231v, William Taverner, "Second Report...of His Survey Work 1714/1715."

21. Taverner's instructions and additional instructions of 21 and 22 July 1713 may be found in PRO, CO 194/5, 99-103v.

22. The ship *Héros*, with Philippe Pastour de Costebelle, governor of the former French colony there since 1695, did not depart Placentia for Cape Breton Island until 25 September 1714; PRO, CO 195/6, 25-28, Col. John Moody to BT, 9 September 1714 (OS); and Georges Cerbelaud Salagnac, "Philippe Pastour de Costebelle," *DCB*, I, 509-513.

23. PRO, CO 194/5, 260-262, Taverner to Secretary of State, 22 October 1714. See also Quinn, "Taverner," 618; Cuff, "Taverner's Second Survey: Introduction," 10; and C. Grant Head, *Eighteenth Century Newfoundland: A Geographer's Perspective* (Ottawa, 1976), 57-58.

24. Taverner, "Second Report," 226-241.

25. PRO, Admiralty (ADM), series 1, vol. 1778, IX, Capt. Edward Falkingham to Col. Moody, and Moody to Falkingham, 17 August 1715.

26. PRO, CO 194/5, 262, Taverner to Secretary of

State, 22 October 1714; and Taverner, "Second Report."

28. "That part of Newfoundland which I have Survey'd is very Dangerous, in many places as appears by my Chart." Taverner, "Second Report."

29. PRO, CO 194/5, 262, Taverner to Secretary of State, 22 October 1714.

30. PRO, CO 195/7, 145, BT to Duke of Newcastle, 30 March 1727. The only example of Taverner's cartographic work to survive would appear to be the map of St. Pierre published in Richard Mount, William Mount and Thomas Page, *English Pilot* (4 vols., London, 1716); see "Cartography," *ENL*, I, 373.

31. Taverner, "Second Report."

32. Some British merchants engaged in the Newfoundland fishery questioned Taverner's qualifications as surveyor; Quinn, "Taverner," 618.

33. PRO, ADM 1/2006, I, Letters of Capt. Thomas Kempthorne (Kempthorne Letters), esp. Kempthorne (*Worcester*, St. John's) to Secretary to the Admiralty Josiah Burchett, 6 October 1715. In the aftermath of the War of the Spanish Succession, there were far more lieutenants than suitable vacancies. A Midshipman Extra was someone who held the rank of lieutenant but who shipped aboard a warship in the billet of midshipman hoping that a lieutenancy would fall vacant; see Daniel Baugh (ed.), *Naval Administration 1715-1750* (London, 1977), 37.

34. Kempthorne Letters, esp. his undated 1715 letter to Burchett. A copy can be found in PRO, CO 194/5, 379-386v.

35. Kempthorne Letters, Kempthorne to Burchett, 6 October 1715.

36. PRO, ADM 2/449, Burchett to Capt. Thomas Durell, *Swift* sloop, 13 June 1716; National Maritime Museum (NMM), ADM L/S 587, "Journal Kept by John Gaudy, Lieutenant of his Majesty's *Swift* (17 June 1716-12 September 1717)" (Gaudy, "Log"). The chart Gaudy had prepared for Kempthorne, and by which he now brought himself to the attention of the Admiralty, was subsequently published; see Mount and Page, *English Pilot*, IV, "A chart chewing Part of the Sea Coast of Newfoundland from y<sup>e</sup> Bay of Bulls to little Placentia, exactly and carefully lay'd down by John Gaudy,

Anno 1715," which includes an inset map of Trepassy harbour. A copy of Gaudy's "Draught and description of Plecentia [sic] Harbour" is in the Naval Historical Library in London.

36. NMM, ADM/A/2057B, Admiralty Out-Letters to the Navy Board, 9 June 1716. According to Ritchie, *Admiralty Chart*, 25, a plane table was "a simple form of portable plotting board which could be set up on a tripod at various stations and upon which conspicuous points could be fixed by plotting intersecting bearings."

37. Gaudy, "Log." See also PRO, ADM 51/961, IV, "Journal kept [sic] on board his Majesty's Sloop the Swift by me Tho<sup>s</sup> Durrell Command' (17 May 1716-23 December 1718)."

38. Gaudy, "Log," 12 August 1716. Following

completion of the survey, while *Swift* was moored in Placentia harbour, the carpenter became drunk and quarrelsome again, and began "beating...with a Red hot polker." *Ibid.*, 13 October 1716.

39. PRO, ADM 1/1694, No. 9, Letters of Capt. Thomas Durell, Durell (Swift, St. Peter's) to Burchett, 16 September 1716.

40. *Ibid.*

41. Head, *Eighteenth Century Newfoundland*, 58-59.

42. See, for instance, Falkingham's complaints in 1732 in PRO, CO 194/9, 212-216v, "Answers to the Heads of Inquiry;" and PRO, ADM 1/1779, Falkingham to Burchett, 4 October 1732.