

Joseph Frederick Vallet Des Barres and The Atlantic Neptune

By JOHN CLARENCE WEBSTER, F.R.S.C.

The family of Vallet des Barres (the old spelling) is a very ancient one in the county of Montbéliard in the South East of France, not far from the Swiss frontier, the village of Héricourt having been probably its place of origin, according to the late Professor Viénot of Paris, himself a native of Montbéliard. This district has had an interesting history. After belonging to the Franks and Burgundians it was joined to Lorraine in 843. In the 11th Century it again reverted to Burgundy and later to the German Empire. In 1397 it passed to Württemberg, to which it belonged until 1793, when it was annexed by France of which it has formed a part ever since.

Its population became largely Protestant at the time of the Reformation and, later, in the days of religious persecution after the revocation of the Edict of Nantes, they endured much suffering and many were forced to flee to other countries, especially Switzerland, Holland, Germany and England.

In 1750-53, the British Government, deciding to encourage settlement in Nova Scotia, advertised in Germany for emigrants. Several hundreds were secured in this manner, partly native Germans, partly Swiss and expatriated Protestants from the district of Montbéliard. Under guarantee of assistance and protection they went to Nova Scotia, and established a settlement on the South shore at Merliguesch Bay, which was officially named Lunenburg on May 10th, 1753.

According to Viénot, while the name Des Barres has been found as far back as the 13th century, the first of the family of whom a record exists was Jean Vallet des Barres, a Councillor of the Province of Montbéliard in 1685. He was dismissed from this position and banished to Basel in Switzerland, on account of his religious convictions; there he died in 1719 leaving six children. One of these was named Joseph Léonard, who married Anne-Catherine Cuvier, of the family of the celebrated Cuvier, who also belonged to Montbéliard. They had the following children:—

1. Joseph-Frédéric Vallet des Barres, the subject of this Memoir;
2. Charles Christophe Henri;
3. Catherine Elizabeth.

The mother, Anne-Catherine, died March 12th, 1747. The father's record has not been found but in 1765 he was alive, being 83 years of age.

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In nearly all sketches of Joseph F. W. DesBarres which I have read it is stated that his father Joseph Léonard was a Protestant pastor. One, however, says that he was a teacher of French and engineering, first in London and, afterwards, in Paris. Professor Viénot has found a record of several pastors of the name DesBarres in the Montbéliard district but Joseph Léonard was not one of them. Until the records of Switzerland are searched this question must remain unsettled. In various accounts of Joseph Frédéric the following are mentioned as the place of his birth,—Montbéliard, London, Paris, Switzerland. As regards the first mentioned Viénot has made a thorough search and finds no record of Joseph Léonard's marriage, nor of the birth of any of his children in that district. Only the death of his wife, Anne-Catherine is registered there, in the Parish of St. Martin. I can find no evidence whatever for the statement that the birth of Joseph-Frédéric took place either in London or Paris. The evidence which exists at present points strongly to Switzerland. His grandfather, Jean Vallet des Barres fled to that country after the revocation of the Edict of Nantes in 1685 and there established his home, for it is known that he died there in 1719. But the most important information on the subject is Joseph Frederick's (anglicised) own statement at the beginning of an account of his career sent to Lord Sydney in a letter, dated Oct. 15th, 1792, the original of which, in DesBarres' own handwriting is in the writer's possession.

It reads as follows:—

"Lieut. Gov. DesBarres, *having finished the courses of his studies in his native country* came to England, and having had the honour of being presented by General Michelson, General Desaguiliers, and Baron Hope, the then Ambassador of the States of Holland, to the then Duke of Cumberland, *resolved to become* a British subject, and was placed under the patronage of His Royal Highness in the Royal Academy at Norwich".

Now as it is well established that he was educated in Basel, it must be concluded that when he referred to his native country he could only have meant Switzerland. The year of his birth is generally stated as 1722, but as he was at the time of his death in 1824 within a month of being 103 years of age, his birth must have occurred in 1721.

Two brothers of the famous Bernoulli family, Jean and Daniel, who occupied chairs in mathematics and experimental physics in the University were among his teachers. From them he derived a thorough grounding in science which was of such service to him in later years.

After arriving in England DesBarres attended the Royal Military College at Woolwich. On finishing his course he was offered a Commission in the Artillery or the Royal Engineers. He desired immediate active service and chose to go to America in 1756, being appointed a Lieutenant in the Royal American Regiment then in process of formation. The origin of this regiment is interesting.

In the year 1755 a splendid force of British regulars under General Braddock, while marching to attack Fort Duquesne in Pennsylvania, had been ambushed and badly defeated by a combined force of French and Indians, the formation and tactics of the British being entirely unsuited to the requirements of backwood fighting.

This unfortunate experience made a great impression on the British Military authorities and it was decided to form an American regiment of four battalions of 1000 men each, who should be mainly recruited in the Colonies. It was established by an act of Parliament, which also enacted that a number of Commissions should be given to a number of foreign Protestants who had served abroad as officers or engineers. About fifty officers, or rather less than a third of the whole number, were of Swiss, Dutch and German origin, among them being Henri Bouquet, Frederick Haldimand, James, Augustin and Jean Marc Prevost, and Samuel Holland. The new regiment was named the "Royal American Regiment of Foot", or the 62nd, but in 1756 the number was changed to the 60th.

The Earl of Loudoun, Commander-in-Chief in America, was appointed Colonel-in-Chief. The regiment was recruited mainly from settlers of German and Swiss origin in Massachusetts, New York, Pennsylvania, Maryland and North Carolina; to them were added volunteers from various British regiments and others from Europe.

When DesBarres reached America, the regiment, was not at full strength, and he was assigned the duty of raising recruits in Pennsylvania and Maryland. After collecting over 300, he was ordered to form them into a corps of field artillery, which he commanded until the arrival of a battalion of Royal Artillery from England.

Under the genius of Lieut-Col. Bouquet, commanding the 1st Battalion, the regiment reached a high state of efficiency, adopting Colonial methods of equipment, simplified drill, open formations and native methods of forest warfare, acquiring, in the words of Hutton, "those attributes of individual action, swift initiative, and of elastic thought, firm discipline, characteristics which fitted the regiment to play a most important and distinguished role in the struggle between

France and England in America. A brilliant youth like DesBarres could not have found a better training ground for the development of his mind and character, nor an abler lot of associates, in all the armies of Europe.

In 1757, as the result of Indian raids in the region of Schenectady, he was sent against the savages whom he defeated and dispersed, capturing their leading chiefs. During the remainder of the year he served under Lord Howe against the French on Lake George, and in the autumn reconnoitred and made a report of the enemy's fortified position at Ticonderoga. In 1758 he went with the 2nd and 3rd battalions of his regiment to serve under General Amherst at the siege of Louisbourg. At Gabarus Bay he was one of the first to land and capture a French intrenchment. During the siege he was employed in developing the approaches and gained the approval of General Wolfe, who praised him so highly, that, in the following year, he was chosen to accompany the General as an engineer in the Quebec campaign.

After the fall of Louisbourg, DesBarres obtained from French officers documents and plans relating to the Gulf and River St. Lawrence, and during the following winter in Halifax, he prepared a large scale chart of the river, which was of great service to the fleet in the expedition to Quebec. He states that this work gained him the general approbation, and particular friendship in many instances, of the naval commanders. James Cook, master in H.M.S. *Pembroke*, also wintered in Halifax and took lessons in mathematics, astronomy and surveying from DesBarres. He must have been aware of the work which the latter was carrying on and may have assisted him in it. Certainly the experience must have greatly helped him in preparing his own large scale chart of the St. Lawrence in 1759.

The 2nd and 3rd battalions fought at Quebec, and DesBarres was with them. Their brilliant service led Wolfe to give them the designation of "*Celer et Audax*" a motto borne ever since by the regiment (now the King's Royal Rifle Corps). Their grenadier Companies formed part of the corps termed "Louisbourg Grenadiers" and were in the centre of the line. Wolfe was near them when he fell and assistance was rendered by Lieut. Browne of the Royal Americans. DesBarres states that he was making a report to the general regarding orders which he had executed, when the latter was fatally wounded. There is no authority for the statement in various accounts that DesBarres was Wolfe's official Aide-de-camp, though he was undoubtedly

in the general's favour as an Engineer and was much employed by him in this capacity.

After the fall of Quebec, he was employed on surveys in the town and environs; he made a plan of the battle of the Plains of Abraham and took soundings of the harbour and basin. His work was incorporated in a large plan, afterwards published in the *Atlantic Neptune*. He remained in Quebec during the ensuing winter and was sent in the spring with 500 men to establish a post at Cap Rouge, nine miles up the river. Before the work was completed the approach of the French army under De Levis led to the abandonment of the position, and the troops retired to Quebec. In the battle of St. Foy which followed soon afterwards, Major Mackellar, Chief Engineer, was severely wounded and DesBarres was called upon for extra work in preparing the defences of the town, though Samuel Holland of the Royal Americans was appointed in Mackellar's place. After the relief of Quebec and the retirement of the French to Montreal, DesBarres was sent with a force to reduce Fort Jacques Cartier and other posts higher up the St. Lawrence. After the fall of Montreal he was sent to Nova Scotia with Col. Bastide to make surveys and to plan and make estimates for the fortifications and dockyard of Halifax. In 1762 he served as Engineer and Quarter Master General in the expedition sent under Col. Wm. Amherst to recapture St. John's, Newfoundland, from the French. He surveyed several of the principal harbours of the island and made plans for their defence, which were sent to the Commander-in-chief in New York. He then returned to Halifax on duty as an Engineer, having been officially thanked for his services in Newfoundland.

In 1763, General Amherst, Commander-in-chief, recalled him to New York, intending to employ him in making military reports in different parts of the colonies, but as Amherst returned to England, (being succeeded by General Gage), this duty was not required. About this time Rear Admiral Spry, in command of the fleet in America, represented to the Admiralty that the coast of Nova Scotia and the American Colonies were very imperfectly charted, and he proposed that accurate surveys should be made. Several senior officers having declined to undertake the work he recommended DesBarres to the Admiralty as being well qualified for the task. Spry was succeeded by Lord Colvill, who was instructed by the Admiralty to employ DesBarres in the survey, and obtained General Gage's permission for the necessary leave of absence from his military duties. He was sent to

Halifax to make preparations, with the assurance that he would be well rewarded if the work were successfully accomplished and that promotion in rank would follow. His salary was fixed by the Admiralty at 20 shillings a day, with allowances for equipment, contingencies, etc. DesBarres threw himself energetically into the work of surveying and charting the coasts, and making many sketches and drawings for a period of ten years. He states that his efforts gained the praise of Lord Colvill and succeeding Commanders on the North American Station, Lord Hood, Admirals Gambier, Montagne and Earl Egmont of the Admiralty, his services being described as of national importance. In 1774 he went to England and received the commendation of the King. On the advice of Earl Howe, who represented the importance of the surveys to His Majesty's ships serving in American waters, as well as to merchant vessels, the King ordered their publication. DesBarres was then instructed to undertake this work under Lord North, First Lord of the Treasury, and the Board of Trade and Plantations. It was an arduous and responsible task involving great attention to details, selecting, correcting and adopting not only the surveys which had been made by himself in America, but those which were sent to London by other workers; and in addition he had to supervise the engraving, printing and publishing of the sheets. He was engaged in this enterprise for ten years, having in 1776-1779 a staff of 20 to 23 assistants, while in other years they never numbered more than 7.

The printing of the engraved plates began in 1774 the earliest yet found by Mr. Henry Stevens being that of Whitehaven in Nova Scotia, dated March 20th. Editions were issued in 1777, 1780, 1781, and 1784, some being in folio, the full size of the plates, others in narrow folios, the plates being folded vertically. To these the name of Atlantic Neptune was given. Mr. I. N. Phelps Stokes in his *Iconography of Manhattan Island* states that the edition of 1784 represents DesBarres' special selection of the most interesting and attractive charts and views, a number being suppressed which had been included in earlier editions. He also points out that special copies of the Atlantic Neptune were issued from time to time made up of selections from the complete set of charts and views. These were intended for the use of Masters of vessels, who required only the sheets relating to the coasts which they intended to visit. DesBarres published a partial catalogue of his 1781 edition, of which Harvard College Library has a copy. The title is as follows:—

Surveys of North America
entitled ATLANTIC NEPTUNE;
published by Command of Government,
for the use of the
Royal Navy of Great Britain.

The publisher was W. Babbs, Bookseller and Stationer, No. 31 Oxford Street. It consists of 15 pages and contains the title and prices of the plates, a few being added in writing.

On two pages is printed the following notice:

"For the conveniency of Navigators, and the public, any Chart or View comprehended in this work may be had singly of W. Babbs, Bookseller (No. 31) Oxford Street."

An interesting description of the final (1784) edition is found in *L'Esprit des Journaux*, Paris, 1784. III; 459-74. It has been translated by Mr. Stokes as follows:—

There has recently been placed on sale at The Hague by P. F. Gosse, court book-seller and printer, a superb Atlas, which we take this first opportunity to describe in detail. This work, which is indispensable for the navy, is the result of nineteen years' labour and has cost the English government more than £100,000 sterling, in addition to the considerable expenses which the author himself has discharged for its execution. The work is of the highest degree of beauty and superior to everything of the kind that has heretofore been published.

It is entitled:—

Plans of the coast and harbours of North America, entitled: the Atlantic Neptune, executed, engraved and published by the order of the government for the use of the Royal Navy of Great Britain, by Joseph F. W. Desbarres, Esq., under the direction of the very honorable Lords Commissioners of the Admiralty.

Sunt ingeniorum monumenta, quæ sæculis probantur.

This work, of the highest possible utility for navigation and commerce, is offered to the public at a price considerably below its value, and the enormous expenses of its execution, in acknowledgment of the protection and assistance which the author has received from parliament. The first part contains the original plans by the author, of the coast and the harbours of Nova Scotia with soundings, maritime remarks, etc., on LXXXIV leaves of royal paper. The second part consists of charts composed of different plans, observations and remarks of officers of the navy and army employed by the government as follows:—

The coast and the harbours of the gulf and river St. Lawrence and of the islands of Cape Breton, St. John, etc., on XXXVI leaves of royal paper.

The charts of the harbours and the coast between New York and the entrance of the Mississippi river on XXVI leaves of royal paper.

The price of this Atlas bound in one volume in calf is 160f., and as the work is sold for the account of the author it will be delivered only on receipt

of cash. Address Pierre-Frédéric Gosse, Court book-seller and printer to S.A.S. who alone is authorized by the author to dispose of this work in foreign parts.

The same Atlas (impression supérieure) Large size on imperial paper with the addition of several pictures superbly printed in colours representing views of the coasts, the river banks and interior portions of the country, views of towns, remarkable places, etc., the whole accompanied by numerous interesting plans and views of military operations occurring during the war in America.

In two Volumes.

The price of this work complete in CCLVIII sheets on imperial paper is 252f., money of Holland, payable in cash.

From such a full description, it may readily be admitted that the encomium of Rich, in his *Bibliotheca Americana Nova*, I 249, viz: that the Atlantic Neptune is the "most splendid collection of charts, plans and views ever published", is not exaggerated.

It is interesting now to enquire as to the actual number of the original surveys which were made by DesBarres and of those made by others. Those who have only a casual or superficial acquaintance with the Atlantic Neptune regard DesBarres as responsible for the entire work, and this view has often been stated in books. Nothing could be farther from the truth. DesBarres was engaged in surveys only during the years 1763-1774. During the next ten years he was in London, revising his charts and drawings, as well as those sent in by other officers military and naval, who carried on work on the East coast of America; he also supervised the engraving of the plates and the printing of the letter press which accompanied them.

Pre-eminent among these workers was Samuel Holland (or Hollandt), whose career must be briefly noted. He was born in Holland in 1728, being descended from a refugee English family who went there in 1660. As a youth he had a thorough mathematical and scientific training and entered the Dutch army when his country was invaded by the French. In 1754 he went to England and, through influence, was made a lieutenant in the Royal American Regiment, like Des Barres, being entered as an engineer. He was a good draughtsman, with mathematical ability, trained in military engineering, master of several languages, and with several years' active service to his credit. He had a pleasant manner and possessed much tact, finding much favour at the hands of Lord Loudoun, Commander-in-Chief. In 1757 he was made a Captain-Lieutenant and was employed in making plans of the province of New York; he also reconnoitred and made drawings of the French works at Ticonderoga (I have already stated that DesBarres was also employed in the latter task). Holland accompanied the Royal Americans to Louisbourg in 1758, serving as

an engineer, making surveys, preparing plans and taking soundings. He stood high in Wolfe's favour (DesBarres also claimed this distinction) and took an important part under Wolfe in the final attack on the fortifications. After the capitulation he made a survey of the fortifications, the town and environs, which is of the greatest value to the historian for it gives in detail the position of the British encampments, batteries and trenches as well as the French fortifications and defences. James Cook helped Holland in this survey and Captain Simcoe of *H.M.S. Pembroke* became so interested in the work that he engaged Holland and Cook to make a chart of the Gulf and River St. Lawrence, in preparation for the expedition against Quebec which he knew must soon be undertaken. Simcoe and Wolfe favoured an immediate advance but they were overruled.

Later in the year Holland was on duty in Halifax and when the *Pembroke* was in the harbour he spent his spare hours working on board with Captain Simcoe and Cook. In a letter written by Holland to Lieut.-Gov. Simcoe in 1792, referring to this period he says:—

"Under Capt. Simcoe's eye, Mr. Cook and myself compiled materials for a chart of the Gulf and River St. Lawrence, which plan at his decease was dedicated to Sir Charles Saunders; with no other alterations than what Mr. Cook and I made coming up the River. Another chart of the River, including Chaleur and Gaspé Bays, mostly taken from plans in Admiral Durell's possession, were compiled and drawn under your father's (i.e. Capt. Simcoe's) inspection and sent by him for immediate publication to Mr. Thos. Jeffrey. These charts were of much use, as some copies came out prior to our sailing from Halifax for Quebec in 1759. By drawing of these plans under so able an instructor, Mr. Cook could not fail to improve, and thoroughly brought in his hand as well in drawing as protracting, etc., and by your father's finding the **latitudes and longitudes** along the coast of America, principally Newfoundland and Gulf of St. Lawrence, so erroneously heretofore laid down, he was convinced of the propriety of making accurate surveys of these parts. In consequence, he told Capt. Cook that, as he had mentioned to several of his friends in power, the necessity of having surveys of these parts and astronomical observations made as soon as peace was restored, he would recommend him to make himself competent to the business by learning Spherical Trigonometry, with the practical part of Astronomy, at the same time giving him Leadbitter's works, a great authority on astronomy, etc., of which Mr. Cook, assisted by his explanations of difficult passages, made infinite use, and fulfilled the expectations entertained of him by your father, in his survey of Newfoundland."

It is thus evident that Cook's education was mainly due to Holland and Capt. Simcoe, yet, as has been stated, DesBarres has been credited with having been his chief instructor during the months following the capture of Louisbourg. Probably this relationship developed during the winter of 1759, when Holland was absent from Halifax for some

months, engaged in restoring the fort at the mouth of the St. John river.

It is interesting also to note that Holland, like DesBarres, claims much credit for the charts which were used by Admiral Saunders' fleet in the passage up the St. Lawrence in the spring of 1759. After Holland's service in the siege and capture of Quebec he was employed as an Engineer, (as was DesBarres) in strengthening the defences. In 1760 after Mackellar, Chief Engineer, was wounded at St. Foy, Holland was appointed Acting Chief, and DesBarres must have served under his orders at this time. In 1761 Gen. Murray employed Holland in making surveys in Quebec Province. In 1762 he was sent to England with his plans where he remained until 1764, having the rank of Captain. In March of this year he was appointed Surveyor-General of the Province of Quebec with a salary, and Surveyor-General of the Northern District, without additional salary, and he reported for duty in Quebec in August. The Northern District, assigned to him, comprised all that part of the continent north of the Potomac river as far West as His Majesty's dominions extended. Under the instructions of the Lords Commissioners of Trade and Plantations, he then prepared for a survey of Isle St. Jean (Prince Edward), the Magdalenes and Cape Breton, owing to their importance as fishing areas. In his commission by order of the King "All Governors, Lieutenant-Governors, Commanders-in-Chief and other officers and ministers, whatsoever, within our Dominions, are to take notice thereof, and to be aiding and assisting, etc., unto the said Samuel Holland, his Deputy or Deputies, in the due execution of the said survey in all things as becometh".

Holland began his work in Isle St. Jean in October. Very early he came into conflict with the Royal Navy, for applying to Lieutenant Mowatt, who commanded the vessel which had conveyed him to the Island, for boats with seamen to assist him in taking soundings and surveying, he was met with a refusal, the Lieutenant stating that his ship would convey Holland wherever he desired to go, but that the Admiralty had ordered him to make observations and surveys himself, and that he could furnish neither men nor boats. This situation indicates that there was some conflict between the Admiralty and the Board of Trade and Plantations, the former evidently resenting the invasion of their prerogatives. This must be remembered in considering the relations of Holland and DesBarres, for the former worked under one authority and the latter under the other. Holland overcame

his difficulties and by October 1765 had made such progress that he was able to send to London the surveys both of Isle St. Jean and the Magdalenes. He next surveyed Cape Breton and sent his plans to London in July 1767. During the following years he was engaged on the River St. Lawrence and the west coast of the Gulf. On July 6th, 1770, he was ordered to go to the easterly parts of New England to continue the survey commenced by DesBarres; this included Maine and New Hampshire. His work continued down the coast and in 1774 his surveys extended around Cape Cod to New London. He was also employed in correcting the boundary between New York and New Jersey. In 1775, while running the line between New York and Massachusetts, his work ceased owing to the outbreak of war.

It is thus very evident that a large proportion of original surveys which appeared in the Atlantic Neptune were made by Holland. His range of operations was probably somewhat as follows:—on the Mainland, from the town of Quebec, down the river St. Lawrence, and along the West shore of the Gulf to the Strait of Canso; also the islands of St. Jean, Cape Breton and the Magdalenes.

DesBarres surveyed Sable Island, and the Coast of Nova Scotia from the Strait of Canso around the Bay of Fundy as far as the Saint John river on the south coast of New Brunswick.

From the Saint John river to Passamaquoddy Bay the survey was conducted by Wright and Hurd, acting under Holland. (Hurd, in later years became Capt. Thomas Hurd, R.N., appointed Hydrographer to the Admiralty in 1808).

The rest of the coast, at least as far as New York, was surveyed by Holland.

DesBarres published in 1778 an account of his work in Nova Scotia under the following title:—

"Nautical remarks and observations on the coasts and harbours of Nova Scotia, surveyed pursuant to orders from the Lords Commissioners of the Admiralty for the use of the Royal Navy."

This accompanied his charts and drawings in the Atlantic Neptune.

An interesting feature of DesBarres' work on the coasts of Nova Scotia is his nomenclature. He discarded local and native names to a very large extent and substituted others which commemorated well-known English families or persons prominent in public life. Most of the latter names were not adopted and were discarded in later surveys.

The charts of the coast between New York and the Mississippi were made by various Surveyors, Engineers and Naval Officers, and in DesBarres' own words, were composed and published, under the orders of Government by himself (Babbs).

In December 1775 Holland arrived in England with his notes and plans and was immediately employed by Lord George Germain in making maps. We know nothing of his relations to DesBarres, who had just started his work in London, after having completed his surveys in Nova Scotia. The probability is that there was no collaboration between them, Holland returning to America on military duty early in 1776. At the outbreak of the Revolutionary war, the Royal Navy was not provided with exact charts of the American Coast, and there was an urgent demand from Lord Howe and other naval officers for the immediate publication of the surveys which had been sent to London. It was this necessity which caused the plans of Holland and others, made under the supervision of the Board of Trade and Plantations, to be turned over to DesBarres, who was working under the Admiralty. In considering his work of arranging, correcting and supervising the preparation of the plans which afterward appeared in the Atlantic Neptune the question arises as to whether DesBarres was scrupulously careful to give due credit to Holland and the other officers who had carried out such a laborious enterprise as making surveys of the greater part of the East coast of North America. Certainly, he has referred to their services in a general way in his catalogues of the plates and has mentioned Holland and a few others by name, but many names are omitted. Moreover, there are many plates and charts on which imprints appear as follows:—"Published according to Act of Parliament" or "Published as the Act directs by J. F. W. DesBarres," which could not possibly have been originally made by DesBarres. Yet, the entire credit is generally given to him for these plates and charts by those who are ignorant as to their production. The originals, of course, were the property of the government and could be disposed of according to their wishes. But if DesBarres took the drawings of others and worked them up for the engraver, he is surely not entitled to all the credit for them. Yet the Admiralty seems to have been satisfied to allow his name only to appear on a large number of plates, omitting all reference on them even to themselves. In this connection reference may again be made to the 1784 edition sold in Amsterdam to foreigners. While the title states that the Atlantic Neptune was executed by DesBarres, under the direction of the Ad-

miralty and while the prospectus mentions the cost as being over £100,000, it distinctly states that the work is sold for the account of the author. This seems a curious arrangement for a government to make, yet as will be shown later, this privilege was allowed DesBarres when the work was undertaken, though no mention of his receipts was ever made in the many statements which he presented to the government.

DesBarres' salary had been fixed at £1 a day, and this was paid by the Board of Trade and Plantations, through whom estimates for the expense of production were presented to Parliament each year. But, when this Board was suppressed in 1780, DesBarres received no further salary and the Admiralty refused to pay him, though he kept up his work until 1784. Then, finding himself in financial difficulties he determined to appeal to the government. After many representations he laid a Memorial before His Majesty. In it he referred to the sums due him for contingent outlays in his surveys from 1763-1774, to the failure to continue his yearly salary for his work in London, and to other expenses. He further referred to the reduction of his resources through ravaging of his property in Minudie, Nova Scotia, by American raiders. He included other grievances relating to his military status, instancing the failure of the Government to grant him promotion in rank, several junior officers in his regiment (Royal American) having been raised above him, and one, who had served below him in the same battalion having been raised to a Lieut.-Colonelcy. (DesBarres was given the rank of major only on March 19th, 1783.)

The King referred the statement to a committee of the Privy Council, and they having consulted the Admiralty, advised that the sum of £3915.17.8 be paid to him for contingencies incurred on the survey of coasts and harbours, carried on under their own direction, but with respect to the subsequent expense incurred in the course of adopting the Nautical use of the surveys of others, as the same had been undertaken in pursuance of His Majesty's Royal Order to the Treasury, their Lordships were of opinion that the consideration thereof did not belong to their Department.

"Thereupon, the Lords of the Committee, in their report to His Majesty after stating the sum proposed by the said Lord Commissioners to be allowed, were pleased to express themselves in the following words, *viz*:—

"It only remains for this Committee to state to your Majesty and humbly submit to your Majesty's gracious consideration the recommendation in

favour of the Memorialist contained in the Report of the Lords Commissioners of the Admiralty upon that part of the Memorialist's case, which relates to compensation for his losses and reward for his services, *viz*: with respect to the losses, which the Memorialist may have sustained in rank and emolument in his profession of a soldier, and in his private fortune by devoting so many years of his life to the execution of an arduous and difficult work, which must be productive of great benefit and utility not only to your Majesty's service, but to the public in general. We are not competent to form a judgment of the nature of these losses sufficient for us to estimate the amount thereof, or to propose an equivalent compensation; but we are nevertheless of opinion, that the Memorialist may be deserving of some mark of your Majesty's favour as a further reward for the zeal, activity and ability, in prosecuting and completing the above mentioned useful work; if what is stated by the Memorialist is well founded, *viz*: that, for works of a similar nature which, he humbly presumes, do not exceed those carried on under his directions, either in hazard, difficulty, time or expense, sums of money have been allowed to the surveyors far beyond any claim made to the Board of Admiralty by the Memorialist".

DesBarres pointed out that the comparative condition of their Lordships' recommendation was eminently in his favour and he drew up a comparative statement showing how much more favourably Samuel Holland and his associate Debrahm had been treated in connection with their surveys in America. Moreover, in order to strengthen his case he disparaged their work as being much less arduous than his own. His words are:—

"In their case, they and their assistants had their choice, in stations and weather, without interruption or risk to their persons or apparatus, whereas, in exploring among rocks and shoals, the channels and safe pilotage into the numerous excellent harbours, discovered by DesBarres, as well as in ascertaining the soundings and navigation of the coast until then unexplored, he had to anticipate and provide for many eventual exigencies under a constant variety of circumstances—the greater the danger, the greater was the necessity of ascertaining it with accuracy and precision. He has frequently been wrecked with the loss of his necessaries and instruments, and has suffered great personal hardships: and, his task being far more complicated and extensive, he necessarily employed all along and supported, a greater number of Assistants".

This comparison seems exaggerated and somewhat unfair. The conditions under which Holland worked in the Gulf of St. Lawrence at any rate, could not have been very different from those with which DesBarres contended, though the dangers of Sable Island which the latter surveyed were probably greater than elsewhere. It was also pointed out that when Holland and Debrahm returned to England to prepare their surveys for publication adequate sums were, as before, granted by Parliament. However, the plan to publish their work was not carried out by them with the exception of their land surveys. Those

relating to nautical use were turned over to DesBarres, who prepared them for the Atlantic Neptune.

DesBarres was given £3915.17.8, recommended by the Admiralty on Nov. 28th, 1783, but this did not satisfy him, for, as he states, "its slender amount did not even defray the mere interest accrued on the advances which he had absolutely incurred for enabling himself to carry on the Services committed to him with due efficacy."

He continued to importune the government who apparently felt driven to do something for him. In 1784, after it had been decided to establish a separate government in Cape Breton, he was offered and accepted the Lieutenant Governorship on June 24th.

The following is DesBarres' final claim for financial reimbursement (without interest charges) which he presented when he made his last effort to obtain payment, in 1795:—

For contingencies incurred, from 1763 to 1773, in carrying on surveys of the coast and Harbours in America, For Implements, Surveying and Astronomical Instruments, maintenance of Assistants, Pilots and Guides; Observatory Drawing Offices and Fuel; repairs of craft and replacing Ship-stores and Provisions lost by Wrecks and Boats oversetting in Operations of the Surveys and Soundings; £ s d			
etc.	4382	3	2
For Ditto, from 1774 to 1783, in Preparation for, and Publication of the Atlantic Neptune, <i>viz</i> : for Implements, Assistants and Draughtsmen; House Rent and Fuel, etc.	5475	0	0
For Expense, to engrave 257 Plates of Charts and Views, (contained in the Atlantic Neptune) at 35 Guineas, according to the allowance made by the Government	9444	15	0
For Ditto to prepare Impressions for the Public Service	1771	0	0
			£21072 18 2

Received—

By grants of Parliament in part of Expense incurred for engraving the above Plates, <i>viz</i> :—In 1775.....	£3409	3	2
1777.....	1473	11	6
1778.....	1227	9	0
1779.....	1022	5	0
1780.....	1056	10	0

By His Majesty's Royal Order in Privy Council, dated 28th Nov. 1783, *viz*: £3915-17-8, besides £166-5-6 previously received4082 3 2 12271 1 10
Balance (exclusive of loss sustained in the advance of the foregoing sums of money, also Arrears of Salary up to the 24th June 1784, the period of appointment to the Government of Cape Breton) £8801 16 4

Details of his claims for yearly expenditures were given as follows:—

I

For his actual survey work—

1763	Disbursed for Implements, instruments etc.	132	10	0
1764	Began Surveys of coasts and Harbours	331	12	6
1765	Continued ditto	423	13	2
1766	.....	410	5	0
1767	.....	642	9	2
1768	.....	384	8	0
1769	.....	447	4	8
1770	.....	431	16	5
1771	.....	398	10	4
1772	.....	364	3	1
1773	.....		
Ten years surveys of coasts and Harbours		£4382	3	2

II

For preparing and publishing the Atlantic Neptune—

1774	.....	458	10	0
1775	.....	483	5	6
1776	.....	960	0	0
1777	.....	853	0	0
1778	.....	779	4	6
1779	.....	666	0	0
1780	.....	343	5	0
1781	.....	313	5	0
1782	.....	308	10	0
1783	.....	310	0	0
Ten years preparing and publishing the Atlantic Neptune		£5475	0	0

These totals are included in the above reimbursement claim.

DesBarres never recovered the balance of £8801.16.4 which he claimed the British Government owed him.

In 1801 the Government ordered another investigation of DesBarres' claims, which was undertaken by Mr. T. Steele. A brief résumé of his report to the Duke of Portland is as follows:—

He found that DesBarres in 1769 presented a bill for £623, which the Admiralty reduced to £132 for purchase of instruments, his yearly allowance for instruments and stationery being fixed at ten guineas. In 1770 he asked for a larger allowance but was refused. In 1779, five years after his return to England, he presented a bill for unauthorized contingent expenses which was rejected. In 1781 he memorialized the King asking for £4214, and the Admiralty recommended payment of only £1200. In 1782, a new Board paid all DesBarres' claim except £300.

When DesBarres undertook the publication of the Atlantic Neptune in 1774, the Admiralty agreed that it should be at his own expense and profit, but, later they agreed to allow him 35 guineas for each plate. In all he was paid for 247 plates. His allowance of 20 shillings a day was paid from 1763 to 1779; it was claimed that the work was finished in 1780. In addition he received the same from the Board of Trade for three years.

The Admiralty paid for the copies of the Atlantic Neptune which they received. DesBarres kept possession of the plates.

The conclusion of the report was that DesBarres had no claim whatever against the Government for his Atlantic Neptune work.

This finding is certainly at variance with DesBarres' statements and accounts, and it is rather remarkable that it had not been established by the officials during the many years of controversy which had passed. In reviewing the entire case, it must be concluded that, while DesBarres was in some respects unfairly treated, he probably exaggerated his losses, and was determined to get as much money out of the Government as possible. It is certainly remarkable that his statements included no amounts received from sales of the Atlantic Neptune, yet this perquisite had been allowed him by the Admiralty, and it must have amounted to a considerable sum. Apparently this was regarded by him as something which was personal and not to be included in any statement of debits and credits presented to the Government. It is not easy to understand this point of view considering that he was working in the public service. The Government might have justly considered that sums received for sales should be counted on the credit side. Yet, apparently, this issue had never been raised.

DesBarres had a just grievance when he blamed the Admiralty for refusing to acknowledge responsibility for his work in supervising the selection, preparation, engraving and printing of plates made from the surveys of others, claiming that they had only to do with his own surveys from 1764 to 1774.

It is very true that many of these other surveys, *e.g.*, Holland's, had not been produced under the auspices of the Admiralty, but under the Board of Trade and Plantations, yet the former were willing to benefit by these surveys and wished to have them incorporated in the Atlantic Neptune which was primarily meant to benefit the Royal Navy.

It was unfortunate for DesBarres that the Board of Trade and Plantations went out of existence in 1780. Had it continued it would have been logical to turn to that Body, when the Admiralty refused his

claim. There was no other authority from whom he could seek assistance, and, thus he was left unsatisfied and resentful, cherishing a bitter grievance, and, undoubtedly, expressing his feelings with a caustic tongue to all who would listen to him. He must have made himself obnoxious to many officials in Whitehall. The stoppage of his salary of £1. a day after 1780 is inexplicable except on the ground that some one in authority over DesBarres was determined to punish him. Yet for four years the salary was not paid, though DesBarres continued to carry on work for the Government. Even promotion in military rank was bestowed in a niggardly spirit. When he undertook his great work in 1763 he was a Lieutenant, and only obtained a Captaincy in 1775. He was made a Major in 1783, a Lieut.-Colonel in 1794 and a full Colonel in 1798.

ESTIMATE OF THE ATLANTIC NEPTUNE

The work must be regarded as one of the most remarkable products of human industry which has been given to the world through the arts of printing and engraving. This might be regarded as an exaggeration by one who has seen only a narrow folio edition, with folded plates, or even the large folio with full-size plates. But when Mr. Stevens' collection is examined with its enormous number of the various states in which the plates, both of views and charts, were produced, one is filled with amazement at the magnitude of the work which DesBarres directed.

Apart from the practical value of the Atlantic Neptune, the artistic excellence of the views alone would give it high rank. This feature is solely due to DesBarres. He drew with great sensitiveness and had an exquisite sense of color. Many of his aquatints, whether in monotone or colors, are of the highest quality.

We may wonder why so many views, both large and small, were made and the criticism that many of them had little practical value is just. But, this may be forgotten, when we consider their aesthetic value, and we should be thankful that the first important efforts in cartography on the coasts of Canada and the United States should have been presented to the world with such delightful artistic accompaniments.

The practical value of the Atlantic Neptune was soon demonstrated. It became the standard guide for ships of all nations in American waters. Yet the charts were in many instances defective, especially in regard to soundings. This is not surprising considering the extent of area covered. These defects gradually became known during the

nineteenth century and fresh surveys had to be made by trained officers with competent staffs, with more means and a better equipment and organization than DesBarres, Holland and other pioneers of the eighteenth century enjoyed. The charts of the East coast of North America at the present day bear little resemblance to those of the Atlantic Neptune, nor can the influence of the latter be traced in them.* Yet while modern investigation has led to their displacement, this should not be with disparagement. Though we have relegated the volumes of the Atlantic Neptune to Museums and Libraries as mere curiosities, let us not forget the circumstances in which they were produced, the hardihood of those who made the original surveys, and the devotion, persistence and idealism of DesBarres, through whose efforts the Monumental work was prepared for publication.

*DesBarres' charts were standard until Bayfield began his surveys in the thirties; they extended from Gaspé to Cape Breton. In the forties Owen surveyed the south shore of New Brunswick from Saint John to Passamaquoddy Bay. In the fifties Shortland charted the Head of the Bay of Fundy and the coast of Nova Scotia as far as Cape Breton, and published a book on his methods.

Shortland abandoned all of DesBarres' names, and used local designations. Holland's exotic names in Prince Edward Island have mostly been retained.

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