

Sustaining the Empire: War, the Navy and the Contractor State, 1793-1815

This three-year research project, funded by the Leverhulme Trust, is now completed. It started in May 2006 and finished in October 2009. The research and writing was done by a team of three at the Greenwich Maritime Institute, University of Greenwich, in conjunction with the National Maritime Museum.

The purpose of the research was to investigate how the Royal Navy fed itself during the French Revolutionary and Napoleonic Wars, 1793-1815. The researchers needed to find out how naval victualling worked, how efficient it was, and to assess its impact both on the operational efficiency of the navy, and how much it affected the British economy. In particular, it has examined the work of the private producers, manufacturers, agents and merchants who were contracted to the government. They were involved at every level of the victualling operation, as they were in many other aspects of eighteenth-century governance. This project complements other current research examining the interaction of the state and the private sector, still a subject of the greatest interest in twenty-first century politics.

What did the sailors eat?

Naval food is often thought to have consisted entirely of ship's biscuit, salted meat and lots of alcohol. These provisions did form a large part of the eighteenth-century sailor's diet, but were not by any means the whole of it. The official weekly scale of provisions to be supplied is set out in the table below:

	Biscuit (lb)	Beer (Gallons)	Beef (lb)	Pork (lb)	Pease (Pint)	Oatmeal (Pint)	Butter (oz)	Cheese (oz)
Sun	1	1		1	1/2			
Mon	1	1				1	2	4
Tue	1	1	2					
Wed	1	1			1/2	1	2	4
Thu	1	1		1	1/2			
Fri	1	1			1/2	1	2	4
Sat	1	1	2					
Total	7	7	4	2	2	3	6	12

To complicate matters, however, various substitutes could be issued when any of the main foods were not available. For example, chick peas or lentils were

issued in place of pease in the eastern Mediterranean or in India; sugar could be used instead of oatmeal, butter or cheese, and outside home waters the daily gallon of beer was replaced by a pint of wine or half a pint of spirits. The substitution of rum in the West Indies gave rise to the myth that only rum was drunk by British seamen.

When you consider that a large fleet could contain up to 30,000 men, and could be on station for months at a time, the quantities of provisions involved were enormous. The list below, giving the quantities of provisions to be sent out to the Baltic fleet in June 1808, gives some idea of the scale of the task:

Bread	5,500 bags (616,000 pounds)
Beef	22,000 pieces of 8lbs (176,000 pounds)
Spirits	38,500 gallons
Flour	132,000 pounds
Suet	11,000 pounds
Raisins	22,000 pounds
Pease	2,750 bushels
Oatmeal	2,062 bushels
Sugar	33,000 pounds
Butter	33,000 pounds
Cheese	66,000 pounds
Vinegar	5,500 gallons
Tobacco	22,000 pounds
Lemon juice	38,500 pounds
Sugar	38,500 pounds

It was customary for fresh meat and loaf bread (rather than the hard 'biscuit' bread) to be supplied when ships were in port. Fresh vegetables were often issued as well.

Where did the food come from?

The Victualling Board maintained major victualling yards at Deptford, Portsmouth and Plymouth, with smaller ones at Chatham and Dover. These were equipped with bakeries and brewhouses for the production of bread and beer. In addition, there was a slaughterhouse at Deptford Victualling Yard, and a small one at Portsmouth.

Some of the food was bought for the Victualling Board in the open market, by commission agents. Most of the rest was provided on contract from manufacturers. Contracts were made by sealed tender, and generally the lowest bid was accepted to provide a specified quantity of a particular commodity, or to provide it for a set period of time. The Victualling Board would sometimes contract with several firms at the same time to provide a proportion of the total needed, to avoid any of them having a monopoly and to

encourage competition between them to keep prices down. The contracts were made both centrally, for supply to Deptford yard, from where provisions were shipped down the Thames to other stations, both in Britain and overseas, and for supplies to particular bases.

There were also contractors usually with larger businesses, who held standing contracts to provide all of the provisions needed at particular stations, both in the British Isles and overseas. Thomas Pinkerton, for example, held the contracts for 'sea provisions' at Hull, Leith, Falmouth and several Caribbean islands. He was eventually to over reach himself and went bankrupt before the end of the Napoleonic War. In addition, the Agent Victualler, an employee of the Victualling Board in a major overseas base, had the freedom to make their own supply contracts.

A squadron on station, therefore, obtained food from a variety of sources. Some came from the Victualling yards in England via the local Agent Victualler, some was provided through local contracts made either by the Agent Victualler, the British Consul or the commanding officer himself, and some was purchased on the open market. All ships carried an allowance of cash, known as 'necessary money', to allow captains to buy food locally whenever necessary, which although a common practice earlier in the century, was, by the French Revolutionary War, only a last resort.

Myths and legends

The popular perception today is that sailors were fed very badly. Salted meat stayed in casks for years at a stretch, until it was either rotten, or so hard that it could be carved like wood. Bread was full of weevils, so sailors used to tap it on the table before eating it, to frighten them out. No-one ever ate fruit and vegetables, so scurvy was rife.

In fact, during the Seven Years' War, less than 1% of provisions were condemned as unfit to eat, a figure which is likely to be accurate since sea officers who made condemnations had no interest in concealing any deficiencies. Naval food of the eighteenth century also has to be seen in the context of its times: 200 years ago, meat was too expensive for the average labourer to eat regularly and firing too costly for many people to cook every day. The seafarer who received a hot meal daily, with meat four times a week, was eating well compared with many people ashore. Scurvy was a problem, but as the use of citrus fruits as a cure, and then as a preventative, became more widespread by about 1800, so the disease declined, and it became an insignificant factor in naval operations.

Food in the merchant navy of the time, however, was often extremely bad. It seems likely that some of the worst horror stories of food at sea actually originated in merchant ships, where owners sought to cut costs by buying in poor provisions and skimping on their supply. There were instances of merchant ship owners buying condemned naval provisions.

Another widely held view is that eighteenth-century administration was slack and inefficient, with widespread corruption and high costs. Offices were regarded as personal property to be bought and sold, giving no incentive to do

jobs well, and as a result accounts went unchecked, supplies failed to reach their destinations, and seamen went hungry as a result.

Research over the last two decades has given a rather a different view, which the project's research broadly supports. The Victualling Board were keen to keep costs down at every level of the operation and did not tolerate corruption on the part of contractors or officials. Accounts generated by ships' captains and pursers, Agents Victualler and other officials were meticulously checked, more so than earlier in the century, and evidence had to be provided to substantiate claims of prices paid for provisions overseas. This could take a long time, although large numbers of extra staff were taken on by the Victualling Board around 1809 to help clear the backlog. In general, it seems that the efficiency of the operation improved over time. However, all through the period covered, supplies usually got to where they were needed and there are very few instances of naval operations being hampered by a lack of food.

How important was victualling?

An effective victualling system was crucial if operational effectiveness was to be maintained, for sailing warships then required very large crews to enable them to sail and fight. Without sufficient provisions, these ships could not remain at sea, blockades could not be maintained, and high rates of sickness would reduce ships' efficiency as fighting machines.

There were some instances of localised shortages, but shortage of supply does not seem to have been a major problem for most units of the Royal Navy. There were occasions, such as during the capture of the Cape of Good Hope, when provisions ran short, but even here supplies arrived in time to allow ships to remain on station and the operation to proceed as planned.

The fact that the navy managed to feed its people adequately becomes all the more impressive considering some of the problems involved. The numbers of men to be fed were very large – 125,000 men in 1800, rising to over 140,000 ten years later – and as a result the quantities of provisions which had to be provided were enormous.

These provisions had to be moved over long distances, at a time when it took six weeks to reach the Mediterranean and up to six months to get to India, and when unarmed transport vessels had to be convoyed under naval escort or risk capture by hostile ships. These ships were at all times, of course, vulnerable to the vagaries of the weather. Viewed in this light, it is remarkable that such a large navy was fed throughout the period with so little impact on operational effectiveness.

Operational effectiveness was particularly tested by a detailed case study of the operations of the British fleet in the Baltic between 1808 and 1812 (see below). For most of this time all the countries which surrounded the inland sea had been conquered by or were friendly with Napoleon, and thus were hostile to Britain. The project proved that the system for taking provisions across the North Sea to the Baltic victualling the fleet was remarkably efficient.

Where are the documents?

The great majority are in the Admiralty records in The National Archives at Kew, London. They contain the Victualling Board's minutes and correspondence, and also the records of other departments of the Admiralty who were involved in victualling and letters to the Admiralty from admirals on station. There is more material generated by the Victualling Board, and the correspondence of Admiral Lord Keith, whose command of the Mediterranean Squadron in 1800-2 forms one of our case studies, in the Caird Library at the National Maritime Museum.

One difficulty experienced by the research team was the low rate of survival of contractors' letters, accounts and business records. Members of the project had to go to the London Metropolitan Archives, the National Library and the National Archives of Scotland in Edinburgh, the Royal Institution, Cornwall in Truro and as far as the New York Public Library. Useful material from the papers of politicians was located in the British Library, the National Archives, the Devon Record Office and the Huntington Library in San Marino, California.

Who made up the research team?

The project was led by Dr Roger Knight, Professor of Naval History at the Greenwich Maritime Institute. He was deputy director of the National Maritime Museum until 2000, and author of *The Pursuit of Victory: the Life and Achievement of Horatio Nelson* (2005). Roger is now Senior Research Fellow at the Institute of Historical Research. His recent book *Britain Against Napoleon: The Organization of Victory, 1793-1815* was published by Allen Lane in 2013 and builds on the work conducted during the 'Sustaining the Empire' project.

Dr Martin Wilcox was the Research Fellow on the project. He completed his PhD in maritime history at the University of Hull, and joined Greenwich Maritime Institute in May 2006. In 2014 Martin returned to the University of Hull to take up a position as a lecturer, where he teaches various aspects of modern British maritime history.

James Davey joined the project as Research Assistant in August 2006, after completing an M.St. at the University of Oxford. After completing his PhD he was appointed as a curator at the National Maritime Museum. His recent book, *In Nelson's Wake: The Navy and the Napoleonic Wars* (Yale University Press, 2015) incorporates some of his doctoral research.

The project was advised by Professor Sarah Palmer, Director of the Greenwich Maritime Institute, by Dr Douglas Hamilton (now at Sheffield Hallam University) and by Dr John McAleer (now at the University of Southampton).

What are the results?

Publications:

The main result of the project is a book entitled *Sustaining the Fleet, 1793-1815: War, the British Navy and the Contractor State*, written by Professor Knight and Dr. Wilcox, and published in 2010.

James Davey completed his Ph.D. in September 2009. Its title is: 'War, Logistics and the British State: Supplying the Baltic Fleet, 1808-1812'. This was later published as *The Transformation of British Naval Strategy: Seapower and Supply in Northern Europe, 1808-1812* (Boydell, 2012).

In addition, five articles have been published or accepted for publication: three examples:

Roger Knight, 'Politics and Trust in Victualling the Navy, 1793-1815', *The Mariner's Mirror*, vol. 94, 2008, pp. 133-149

Martin Wilcox, "'This great complex concern": victualling the Royal Navy on the East Indies station, 1780-1815', *The Mariner's Mirror*, vol. 97, 2011, pp. 32-48

James Davey, 'Within Hostile Shores: victualling the Royal Navy in European waters during the French Revolutionary and Napoleonic Wars', *International Journal of Maritime History*, vol. 21, No. 2, 2009, pp. 241-260

Conferences:

A workshop, 'The Contractor State' was held at the University of Greenwich in April 2007, with twenty-five invited attendees, and six speakers from various British universities.

In April 2009 a one-day conference was also held at the University of Greenwich, entitled 'New Perspectives on Resources, War and Government, 1750-1815'. There were ten speakers from the universities of Exeter, London School of Economics, Dusseldorf and the Greenwich Maritime Institute, and the meeting was attended by 72 delegates.

In addition, the team attended fifteen conferences, reading papers at the majority of them.

Legacy of the project

The ideas developed in the Leverhulme project slotted neatly into current European-wide historical debates on the process of state formation in the early modern period up to 1815. In Britain the debates had been crystallised in 1989 in John Brewer's *The Sinews of Power*, from which came the idea of 'the fiscal military state'. This firmly established the idea that the national effort in gathering money through taxes was central to the establishment of the state and its efficiency.

In order to build on these ideas, historians began to investigate how efficient states were in *spending* the taxes which had been collected. These historians

formed themselves into the ‘Contractor State Group’, meeting in November 2011 Las Palmas de Grand Canaria, and whose proceedings were published in Richard Harding and Sergio Ferri (eds.) *The Contractor State and its Implications, 1659-1815* (Las Palmas, 2012). More recently, Rafael Torres Sanchez’s *Military Entrepreneurs and the Spanish Contractor State in the Eighteenth Century* (OUP, 2016) continues in this vein of historical enquiry. The phrase ‘contractor state’ is now very much part of the historian’s lexicon

Alongside the project’s academic significance, its findings have also been communicated to the public in a variety of ways. Food and health at sea remain subjects of great popular interest, and the research team continue to disseminate the projects findings through talks, publications and media interviews. Furthermore, victualling was also an important element in the National Maritime Museum’s permanent gallery ‘Nelson, Navy, Nation’, which opened in 2013. It included a graphic, created with the help of the project researchers, which demonstrated the national breadth of food contracting and the main supply routes into the Royal Dockyards. Through such means, the project continues to inform the public and academy alike.



‘Supplying the dockyards’ graphic in the National Maritime Museum’s ‘Nelson, Navy, Nation’ gallery.