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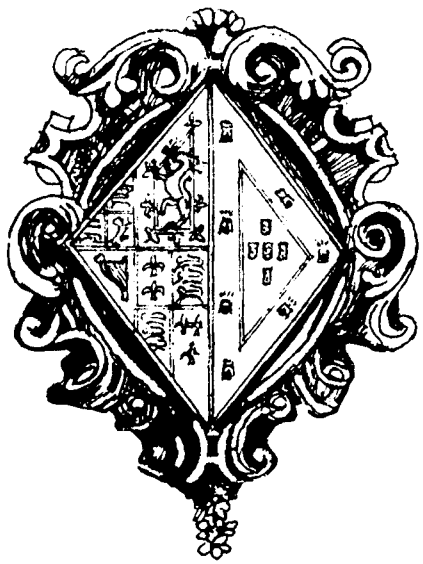

THE PORTUGUESE AND BRITISH NAVIES, 1750-1815

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The period covered is one in which important events that had a significant and permanennt impact on history ocurred; the Napoleonic war (1793-1815), the independence of America and, especially for Portugal and Brazil, the journey of the Royal Family in 1807/08. The two Navies had, during this period, an active and very often fundamental part to play. This paper discusses their principal activities, then describes and comments on the men, the ships and the men aboard their ships.

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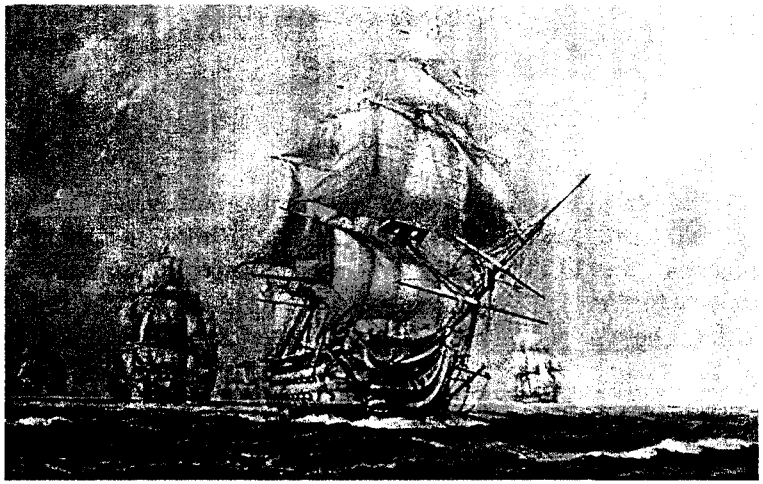
It will not come as a surprise to learn that the responsibilities of the two Navies were very similar:

1. Actions deriving from war – the capture or destruction of enemy vessels, the transportation of troops, blockade of ports, interception and inspection of merchant vessels and amphibious operations.

During the periods of conflict activities were so intense that during the 27 years of the Napoleonic war Britain lost 166 vessels, including 5 line-of-battle ships. In compensation she captured 1,201 vessels, including 159 line-of-battle ships and 330 frigates. Portugal, in turn, lost the frigate *Minerva* near Sri Lanka in 1809.

2. Escort merchant vessels, defending them from the enemy and from pirates.

The North African coast as far as Tripoli was a haven of Barbary pirates. A Portuguese squadron, using Gibraltar as their temporary base, permanently patrolled this region. Every year the convoy of



Victory 1

merchant vessels (80 or more in number), heading for India and Brazil, would be escorted as far as the Atlantic Isles; beyond it was highly unlikely to meet pirates, until reaching the Brazilian coast. At a previously agreed date, a squadron would be sent to cruise off Madeira and, after picking up the convoy, escort it to the safety of the Tagus. In the East, Britain was fully occupied defending vessels belonging to the East India Company. The region was so dangerous that, in addition to an escort, the vessels had to be armed.

Victory 2

3. Transport dignitaries to their posts and deportees to their place of banishment.

The unique example, during this period, was the journey of the Royal Family of Portugal to Brazil.

4. Transport valuables for the Crown.

The Portuguese line-of-battle ships that escorted the convoy of merchant vessels, when necessary, continnued their journey all the way to Brazil. In 1769, for example, the line-of-battle ship *N^a. S^a. dos Prazeres* sailed from the Tagus on the 25th of April, escorting two vessels going to India and a number of merchantmen going to different ports in Brazil. In July she put into Salvador making water, due to the rough passage. On the 29th of May 1770 she arrived back in the Tagus, having made the journey from Rio de Janeiro in 94 days. She brought bullion, credit notes and coin for the Crown totalling 908 million réis, also eleven safes filled with diamonds. She brought an even greater sum for private individuals.

Another influencing factor, that brought the two Navies together, came from the officers. In Britain, during the years of conflict, the Navy employed some 120,000 men (600/800 ships on active service); in peace time 18,000. As a result of this policy sailors lost their jobs, marines went back to their barracks and officers, without a ship but willing to serve, had their pay reduced by half. Perhaps this was the principal reason that made so many look to the Portuguese Navy for employment.

During the last 40 years of the XVIIIth century the names are known of 35 officers who made this transfer (a substantial number in view of the size of the Portuguese Navy, a fleet of some 25/35 vessels). A few were still active in 1807; the fleet that brought the Portuguese Royal Family to Brazil included two brigantines, *Lebre* and *Vingança*, under the command of Daniel Thompson and James Nicholas Keating.

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Looking firstly at the men embarked, the shortage of sailors was perhaps the greatest problem faced by the Navies. The problem existed in spite of using brute force (press gangs), accepting prisoners before their sentence had expired, forcibly removing seamen from merchant ships encountered on the high seas and transferring men from a warship coming in to port to another about to set off on a voyage; even then ships nearly always left port without their full compliment. It was common talk that the Admiralty did not encourage learning to swim for fear of loosing men when the ship was tied to a buoy!

Conditions on board were dreadful (on shore they were not much better, as described by *Charles Dickens* in many of his books). The annual pay was £15, usually paid several months in arrears; clothes issued (uniforms were only introduced in 1857) and tools lost or broken, were discounted from their paltry earnings. The only chance of obtaining substantial sums of money was in the distribution, following the capture and sale of a prize; the singular example was the capture of the Spanish *Hermione*, in 1762. Her sale earned each sailor the equivalent of 36 years pay!

Marines were more like soldiers. On board they carried out guard duty and helped to maintain discipline; during battle they climbed up the rigging and acted as sharpshooters (especially directed at officers of the enemy ships) as well as joining in the boarding. Although they participated in a number of tasks, especially where intense effort was required (such as raising the anchor), they came into their own in amphibious operations.

Officers began their career at the age of 11 or 12 years, indicated by a relation or friend with influence. Instructed during many voyages by the chaplain or priest, the schoolmaster and the captain, in time these young candidates would sit the examination for the rank of lieutenant. Promotion followed until the rank of post captain was reached; from then on strick seniority from the date of promotion was followed. If he did not perish from disease or battle or blot his record following a court marshal, eventually he would

reach the rank of Admiral. Although in theory lieutenants had to be at least 19 years old, practise was different; Rear Admiral of the Blue Sir William Sidney Smith (commander of the squadron that escorted the Royal Family in 1807/08) was promoted to post captain at the age of 18.

No ship's compliment would be complete without a chaplain or priest, cooks, tailors, bakers, carpenters, caulkers, artillerymen, the surgeon and his assistants, scribes and servants. In the British Navy a captain had, by right, 4 servants for every 100 men in his crew; this meant that in the case of a 74, the captain had the right to 24 servants!

Also we cannot forget the large contingent of men, employed directly or indirectly by the Navy, who remained on shore. They included those who worked in the shipyards, in the rope making factories, in the manufacture of guns, purchasing wood, cloth, gunpowder, victuals, water, spirits and the thousand and one items indispensable for the efficient running of a man-of-war. Also the staff of the war councils and the prize courts, where judgement was passed on prizes; the hospitals maintained by the Navy, of which the most famous still exists today, at Greenwich.

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The war vessels that interest us are those line-of-battle ships that were of sufficient size to participate in a line of battle. In practise only those vessels with 60 or more guns could be thus used. From the number constructed the 74 was, by far, the most popular; with a compliment of 650 men, she measured 60m. in length, 17m wide and drew 7m. She weighed some 1,800 tons.

The construction of a vessel, such as a 74, required 2,000 trees. As a result, as from the XV century, monarchs ordered the planting of forests in Europe to supply the much needed wood, usually oak. Portugal also made use of the hardwoods found in Brazil; at this time Salvador had a well developed shipyard (during

this period the line-of-battle ships *Martim de Freitas* and the *Princípe do Brazil* were built there).

A typical 74 was built with three covered decks, the orlop, the lower or gun deck and the upper; also the quarter deck, open to the sky in the centre part, and closed at the stern (the poop), as well as at the bow (the forecastle). The lower and upper decks were the main gun platforms, but lighter guns were placed on the poop, and bow chasers could be mounted on the forecastle, so as to be able to fire forward.

Ballast, in the form of pig iron, lined the bottom of the hold, then came dried provisions and water casks in different size containers, gun powder (with a small room beside it known as the 'light room', to provide illumination, but at the same time avoid the risk of contact and explosion); also dry bread, or biscuit as it was generally known, kept in a tin-lined room to avoid (without much success during a long voyage) the attack of famished insects, and spirits (kept under permanent guard).

The orlop deck contained space for the surgeon, stores of lighter materials and a central area where the main cable was stowed. It was here that, during battle, space would be made available for use as a temporary hospital.

The upper and lower gun decks lined with cannons, were also the sleeping quarters for the crew (each sailor was allowed 40cms. by 1,80cms.). Officer's cubicles were made of partitions that could be dismounted. By comparison, the captain had relatively luxurious accommodation, with windows, on the poop of the quarter deck; suitably divided for daytime duties, eating and sleeping.

The description would not be complete without mentioning that the head room between gun decks was 1,55cms., the orlop somewhat less.

The three masts (fore, main and mizen) were attached to the ship up to a certain height, above the top mast and the top gallant

mast were added; in stormy weather they and their yards would be taken down to reduce drag and to lower the centre of gravity.

The principal sails were attached to yards; their sail area could be adjusted by tying the reef-lines (rows of small ropes on either side of the sail). Quadrilateral and rectangular sails (stay sails) were carried in between the masts and also attached to the bowsprit. Instead of a mainsail, the mizen mast carried a spanker on a boom. Sails were also carried on yards that could be extended out from the fore and main mast yards, so that they would hang over the sea (studding sails); sprit sails were carried from yards hung underneath the bowsprit.

The movement of the main yards were restricted by the cables that supported the masts; in practise this meant that the angle which a ship could sail into the wind was restricted. In order to bring a ship to, sails had to be set in such a way so as to compensate the movement; some sails pulling the ship back, whilst others pushed her forward.

Navigation depended mainly on measuring the angle of the sun with the horizon to define latitude and the chronometer, to measure longitude.

The invention of the chronometer is a curious story. In 1707 an unbeaten British squadron, on its way home, lost four of the five ships that made up the squadron, shipwrecked on the Scilly Isles; entirely due to a mistake in calculating the longitude. In 1714 British parliament offered a prize of £20,000 (today some $12 million dollars) to anyone who invented a clock that could keep accurate time even under the most hazardous conditions. Following a lifetime dedicated to the problem, the inventor John Harrison (1693-1776) received the greater part of the prize from the Board of Longitude, when his chronometer was finally accepted by the Navy in 1774.

The speed, another element for determining the route, was measured by the log, a piece of wood known as a log-ship fastened to a line on which knots had been tied at regular intervals. When tossed

overboard, and once past the turbulence caused by the ship's wake, it was allowed to drift for seven or fourteen seconds, as measured by the small sand-glass. The length of line that had drifted out with the log enabled the speed of the ship to be calculated.

Another essential equipment were the anchors, of various sizes. The largest, four in number, for it was foreseen that they could be lost, required 383 men to raise it. This enormous effort in fact was to drag the ship, weighing 1,800 tons (perhaps added to the weight of the wind or tide) and the waterlogged cable up to 65cms. in circumference and 300m. long, over the anchor; only then could it be freed from the seabed.

All ships carried flags belonging to enemy and neutral nations, with the objective of provoking confusion. However, before giving the order to open fire, honour required that the true colours be shown. Once commissioned a pendant, some 30m. long was hoisted. The apex of the British Navy consisted of Admirals, Vice Admirals and Rear Admirals (officers of flag rank), divided in order of seniority, into red, white and blue squadrons. These officers were entitled to fly their ensign (of their colour) on board their flagship; an Admiral on the main mast, similarly a Vice Admiral on the fore mast and a Rear Admiral on the mizen mast.

On the order to prepare for battle, the decks had to be cleared of all obstructions; these would include the divisions that made up the cabins, tables and chairs, personal belongings, hammocks, etc. If the battle was imminent and time short it was not unknown to clear the decks by throwing everything overboard rather than stowing below, as was more usual. Guns would be untied and made ready, powder and shot brought up from below, and a fire lit beside each cannon. The gun crews, trained by regular practise, would take up their posts and prepare to aim and fire. Supremacy in a battle depended just as much from the speed with which broadsides could be delivered as from the accuracy of the firing. To protect the men from splinters the sides of the quaterdeck were lined with hammocks and a net extended above the heads of the crew.

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On board sailors worked in two shifts, port and starboard, for periods of four hours on tasks in well defined areas of the ship. Thus the day was divided into a period of work followed by a period of rest, except in an emergency due to the weather or the enemy.

Food consisted of dry or salted victuals such as meat, oats, sugar, peas, bread and cheese. Live animals, fresh vegetables and fruit would be delivered daily to the ship when in port. In the British Navy each sailor was entitled to a daily ration consisting of either a gallon of beer, a quart of wine or a pint of rum diluted in the proportion of two of water to one of rum. Weekly, lime or lemon juice was distributed to avoid scurvy.

A 74 carried some 250 tons of water. Daily consumption was about 2 tons, but could be considerably less should it prove necessary.

Health, on board, was precarious. Typhoid and yellow fever decimated the crews; syphilis, hernias and accidents on board were common. The British Admiralty registered, during the period 1793-1815, 6,500 deaths due to enemy action, 13,000 due to collective accidents (fire and shipwreck) and 70-80,000 due to disease and individual accidents.

Strict but fair discipline on board a fighting ship was of paramount importance. The guidelines were laid down in the Articles of War, regularly read out to the crew; usually when mustered for Divine Service on Sundays. The penalty for violation of many of the Articles of War was death. The more usual punishment for lesser offences such as drunkenness, fighting, stealing and falling asleep whilst on duty, was flogging; carried out with the cat-o´-nine-tails (nine pieces of rope each with three knots tied at intervals). More serious offenders would be taken by boat from ship to ship and flogged before each ship's crew. Officers were not immune from punishment: Admiral John Byng, court-marshalled for failing to

prevent the French from taking Minorca in 1756, was shot on the quarterdeck of HMS *Monarch.*

Little spare time remained for amusement; musical instruments, plays, story tellers and handicraft were the only alternatives. In port it was usual for prostitutes to be brought on board; in 1805 *Revenge*, that carried a crew of 600 men, recorded that 450 prostitutes had come on board (at the same time). Sometimes women would be hidden on board at the start of a voyage; they would remain until they could be transferred to another ship returning to port. Strange cases recorded included that of William Chandler in 1795 (whose real name was Mary Lacy); she managed to pass as a man and serve on several ships during a period of 12 years, until her sex was discovered!

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We began writing about the belligerent responsibilities of the Navies and end discussing tactics employed during a battle.

The first objective in a battle was to capture the enemy's ships and only secondly to destroy them. A captured line-of-battle ship would go to the dockyard for repairs and, suitably renamed, join the squadron. Even after paying prize money, to the crew that had captured the ship, it was more economical as well as advantageous in terms of time.

Reduce or eliminate the manoeuvrability of the enemy's ship followed by boarding, was the strategy used to capture a ship. In order to achieve this it was necessary to destroy the sails, spars and masts and, at the same time, reduce the numbers of the enemy crew. Traditionally both sides sailed on parallel lines until the line that had the advantage of the wind decided to close the gap and engage the enemy (still in a parallel line); close range broadsides followed, sometimes for several hours, until boarding took place.

An alternative tactic, whose principal adept was the English Admiral Nelson, consisted in approaching the enemy, but as yet

outside the limits of his guns, turn the whole line and head straight for the enemy so as to pass at right angles behind each enemy ship. This manoeuvre required exposing the squadron to the full weight of enemy broadsides for twenty minutes or so, without being able to reply. Discipline and sang-froid were imperative, for during those long minutes massive punishment was received. On the other hand on passing each enemy ship the least protective part was exposed (windows on the upper decks); each cannon in turn could fire along the length of the ship, the rigging and the rudder. In addition to common shot, grape and double-headed hammered shot would be used. Just one passage could result in the total destruction of the rigging and the eradication of a good part of the crew.

This tactic was employed in the Battle of Trafalgar (near Cádiz), in 1805, when 27 ships of the line faced 33 ships of the combined Franco-Spanish fleet. The British Navy took 18 prizes without the loss of any ship.

Paintings by S. F. Smitheman ATD, BA, FRSA entitled "HMS Victory Leading the Line at Trafalgar" and Clarkson Stanfield RA "HMS Victory being towed to Gibraltar with the Body of Admiral Nelson on board" show us, in a way that language cannot describe, the effects of the battering suffered to obtain this victory.

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Note: Although many of the references are to the Royal Navy, they could also apply (with some obvious exceptions) to the Portuguese Navy.

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Lecture at the Historic Institute of Petrópolis, RJ, Brazil.

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Kenneth Light is a member of the British Historical Society and has contributed articles in the past to the Annual Reports.