

1. The Development Of Naval Education

*If you wish to serve your country as a commander of any force,
great or small, you must nourish yourself with study.
Commodore Goodenough, 1871*

In early days when the King went to war, he commandeered merchant ships, built castles on them, filled the castles with soldiers, and was ready for sea. The merchant seamen who had manned the ship in peace continued to sail it in war, but the soldiers did the fighting. Sailing a ship was scarcely a reputable occupation for gentlemen. Soldiering was. The importation of big guns into ships, however, put the soldiers out of business. The men who sailed the ship began to work the guns and, by the time of James I, the soldiers in ships had passed away. But the captains and officers of ships were still established gentlemen. When the Elizabethan Fleet sailed to meet the Armada, Drake, the seaman, did not command it. Howard of Effingham, the gentleman, did so. It was the same all down the line. The tarpaulins sailed the ships, while the young bloods officered it. The gentlemen were not seamen and the seamen were not gentlemen.

The gentlemen, however, must be taught their profession. Influence was the best passport to the quarterdeck and many reached it without knowledge. Samuel Pepys was the first to attempt a reform of their deficiencies. Charles II and his brother, James, Duke of York, had made sea service respectable and it became the fashion for well-born youth to officer the King's ships. But they did not condescend to learn seamanship, although not averse to drawing their pay. In 1677 it was ordained that every candidate for the post of Lieutenant must have served three years at sea, at least one year as a midshipman, produce a certificate of sobriety, diligence and obedience from their Captain and pass an examination in navigation and seamanship at the Navy Office. The latter weeded out the incompetent. "Thank God", Pepys wrote in the following year, "we have not half the throng of those of the bastard breed pressing for employment which we heretofore used to be troubled with, they being conscious of their inability to pass this examination".

The examination in navigation could not be passed by intuition and influence alone. Instruction was required. The only man aboard who could give it was generally the Chaplain. His position at this time was not high one, although he had just been elevated from his former rating with the ordinary seamen to the status of a Warrant Officer. But in education he outshone the ship's officers. So he probably gave the necessary instruction, although, owing to an oversight of authority he had to give it free. It was another quarter of a century before payment for teaching the young gentlemen was finalized. It was the practice for Admirals and Captains to enter their own officers, and their protégés were borne in the ship's books as part of their retinue, generally as Captain's servants. These young gentlemen, called volunteers, chased X with the chaplain or a poor but educated relation who might be specially embarked for the purpose. These early schoolmasters were paid as ordinary midshipmen and sometimes received a private allowance out of the funds provided by the parents of the volunteers. Particularly in small ships, this pittance failed to produce proper pedagogues. So in 1702, an Order in Council of Queen Anne permitted the payment from public funds of bounty of £20 a year, besides the pay of an ordinary midshipman to "ingenious parsons who should enter themselves on board Her Majesty's Ships of the 3rd, 4th and 5th rate to instruct the Youths in the art of seamanship". The test of ingenuity was made by the Master and Brethren of Trinity House. The schoolmaster's function was "to employ his time on board in instructing the volunteers in writing, arithmetic and the study of navigation, and in whatsoever may contribute to render them artists in that science". The scope of the instruction extended further however than the

potential officers. He was also "to teach the other youths of the ship." "He is to be early every morning at the place of teaching and to represent the names of such as are idle, or averse to learning, to the Commander, in order to his taking course for their correction.

History Of The Development Of Naval Education

Thinking Wisely, Planning Boldly



Image source: Joseph Moretz

By the middle of the eighteenth century, there appeared, in theory, to be an infallible organisation for instructing the young gentlemen at sea. But, in practice, the poor pay and the poorer conditions of service did not attract the right breed of men. Many ships were without a schoolmaster, no candidate being forthcoming. The Admiralty realized that more ambitious arrangements were required. In 1704, a Mr. Lewis Maidwell had offered to endow a school for potential officers before they are shipped off to sea. Two centuries later Maidwell's schemes were to bear fruit, but a curriculum which included six modern languages was rather too steep for the seamen of his time. In 1729, however, the Admiralty introduced a modified version of his ambitious project. The system of training young gentlemen at sea was to be abandoned and a Naval Academy to be erected at Portsmouth. Forty sons of noblemen and gentlemen between the ages of 13 and 16 are to be taught writing, arithmetic, drawing, navigation, gunnery, fortification, and other useful parts of the mathematics". French, dancing, fencing and "the exercise of the firelock", were also taught, for an inclusive fee of £25 a year. The masters are all civilians and an entrance examination as conducted by the Head Mathematical Master. The scholars were to "to lodge in separate chambers" and were "to be punished for their faults, during the first year of their being in the Academy, by the rod, by imposition of tasks, or by confinement, at the discretion of the Headmaster; and heinous offences by expulsion by order of the Lord High Admiral, or Lords Commissioners of the Admiralty, for the time being". The candidates passed out when they had completed "their plans of mathematical learning and made a manuscript copy thereof". The later was regarded as most important, some beautiful sets of notes being compiled by the scholars, although it is doubtful whether they were always conversant with the contents.

The Academy was not a success and most Naval Officers who achieved greatness, still entered the service in the casual old way. Rodney, being possessed of influence entered as the last King's Letter Boy in 1732. Had the Academy not taken four years in opening, he might have been one of the first

pupils. As it was, he started his seamanship at thirteen, off the Great Banks of Newfoundland, and not in the classroom at Portsmouth. Jervis was rated as an Able Seaman at the same age. The Academy was rarely more than half full and, in 1773, The Admiralty instituted the first scholarships inviting 15 sons of Naval Officers to be educated at the public expense. "The Portsmouth Academy was not well conducted", however, according to Admiral Byam Martin, who passed through it. "Although the masters were excellent each in his particular branch, yet a want of method tended to waste their labour". He was high in his praise of the masters but still considered "there was a screw loose somewhere ". On the whole, he was inclined to think "a well regulated man of war, and a really good schoolmaster, and here the Captain really takes an interest about his boys", was a preferred course of education. His opinion was generally held and the schoolmasters still carried on at sea. But enthusiastic Captains always had difficulty in unearthing suitable candidates. Rodney, then a young rising Captain, found in 1745 that he was saddled with a number of young gentlemen; and requested their Lordships "to warrant a schoolmaster to instruct them in the art of navigation". The Admiralty, however, could only tell him to find one himself and recommend him.

The schoolmaster's was not an enviable one. He ranked with the ship's cook and was probably regarded as far less important. He had no cabin, no prospect of advancement and no pension. There were some brilliant men among them, however. Anson is supposed to have learnt his mathematics from a Mr. William Jones, who is reputed to have been present at the plunder following the capture of Vigo in 1702; where his bibliophile bent led him to ransack a bookshop. His only trophy, however, was a pair of scissors. He is the first known schoolmaster, but it is very doubtful if he ever taught Anson, for he seems to have left the Navy before the latter was in his 'teens. One, Pascoe Thomas, "teacher of mathematics on board the 'Centurion'" accompanied Anson on his famous voyage, however, and had a hand in producing the narrative of the expedition. Again Commander Gardner mentions a schoolmaster in his amusing reminiscences. This man was a brilliant mathematician, but more partial to his drink than to his duty. Another, the celebrated Mr. Mears served under Prince William Henry, latter King William IV, when he commanded the "Pegasus" in 1786.

"All acknowledged his great abilities as a navigator and as a draughtsman". He was discovered, however, to be as mad as his midshipmen had long thought him, for, after an unsuccessful assault on his Royal Captain with a penknife, he was discovered outside his cabin at dead of night, armed with a carving knife. He was forthwith consigned to an asylum. There is also a story of another interesting character, one Thomas Duncherley, whose mother revealed on her deathbed that his father was King George II, whom she had known when he was Prince of Wales. George III Later allowed him a pension and a residence at Hampton Court Palace. His school mastering had already come to an end by that date, for, like many others, he had regarded it as a stepping stone to higher spheres; and, at the age of 22, had become a gunner.

In 1806, the Naval Academy at Portsmouth was enlarged, overhauled and renamed the Royal Naval College. James Inman, famed for his nautical tables, was appointed headmaster. "At the College as now conducted under Professor Inman," Byan Martin records, 'things go on much better and many young gentlemen are sent forth -with high attainments". It began to be considered the most eligible means of entering the Navy "It is in excellent preparation," wrote a critic, "but it is merely elementary, and, as it only extends to the age of fourteen years, it is in its operation extremely limited. Many and perhaps larger proportion of boys enter the service directly, and are dependent on the means of instruction afforded by the ships in which they chance to serve. It is the education on board which is really and permanently valuable". And it was to such education that the future King William IV referred when he declared, in 1827, that "there is no place superior to the quarterdeck of a British Man-of-War for the education of a gentleman". The sailor King, in fact, had been a strong

supporter of naval education when he served as a Captain. "Whether the leaden headed or light headed, none could escape the rigid enforcement of his rules of instruction". From nine in the morning until noon the young gentlemen were engaged with the schoolmasters and never left unoccupied during the rest of the day.

For the test of "ingenuity" formerly administered to prospective school-masters at Trinity House, was now substituted an examination before the Governor and Professor of the Royal Naval College. Honours graduates were exempted from this examination and were gradually attracted into the service in increasing numbers. In addition to the bounty soon increased to £30, the private allowance paid by the Captain was fixed in 1812 at a tuition fee of £5 a year from every young gentleman, "the sane to be stopped out of his pay". But still "it would be unreasonable to suppose that a very highly educated class of persons should be obtained", wrote a critic. Many ships were still without one. It was ordained that 'the schoolmaster is not only to instruct his pupils in mathematics, but to watch ever their general conduct and to attend to their morals, and if he shall observe any disposition to in 'orality or debauchery, or any conduct unbecoming an officer or a gentleman, he is to represent it to the Captain'. All of which was very difficult for the schoolmaster, living on a pauper's pay and in the same mess as his pupils.

So much of the work was ably undertaken by Chaplains, who had always been concerned in it. The Chaplain was paid about £160 a year. If he undertook the duties of the schoolmaster as well, he received the bounty and the compulsory contributions of his class. In one case, which occurred about 1850, a Chaplain, received from these sources £400 per annum, He had also other advantages still denied to the schoolmaster. Eight years service entitled him to his half pay and there were numerous livings in the gift of the Admiralty. In addition, the Chaplain had a better status in a ship than the schoolmaster, who was still expected to share his pupils' mess.

But the reforming hand of the early Victorians soon raised the schoolmasters' status. In 1836 he was given warrant rank and a uniform. His title now became Naval Instructor and Schoolmaster. His duties were still to teach the young gentlemen, but, as we have seen, he had also to concern himself with "the other youths of the ship". It was quickly realised that more staff was needed to undertake the instruction of both officers and men. So, on 15th May, 1837, the Admiralty "being anxious to extend the advantages of education to the Petty Officers, Seamen, Marines and Boys of the Fleet", were "pleased to authorise one additional rating of First Class Petty Officers in every ship of His Majesty's Navy, to be called 'Seaman's Schoolmaster'" He was to be competent to teach "Reading, Writing and Arithmetic, viz , the first four rules, the Rule of Three, vulgar and decimal fractions, Logarithmic Arithmetic, Plane Trigonometry and to keep a ship's reckoning at sea". It was to avoid confusion that the title of Naval Instructor was first instituted and the education branch split into two. The Chaplain was made responsible for educational work on the lower deck and the seamen's schoolmaster became his assistant. He appears to have assisted him in his other duties also, for there is one case where he carried out burials and others where he taught the catechisms. It was laid down in the regulations that he must be prepared to play the harmonium at divine service.

On 11th March, 1842, an Order in Council instituted the titles of "Naval Instructor" and "Chaplain and Naval Instructor". The age limits for a warrant as Naval Instructor were from 20 to 35 years. Candidates were required to pass an examination in mathematics and navigation, and have "a competent knowledge of the classics". Although the knowledge of French," ran the regulations, "as well as of other modern languages, and of the principles of drawing, is not 'considered as indispensable, it is very desirable that Naval Instructors should be able to give instruction in these branches of education, and preference will always be given to such as possess these attainments" The pay had been improved, ranging from 7s a ay on first entry to 10s after ten years' service. The

bounty was discontinued but the contributions from the young gentlemen continued, and half pay ranged from 2s to 5s per day. Chaplains appointed as Naval Instructors received, in addition to the £5 a year from each young gentleman, three fourths of the Naval Instructor's pay, in addition to their pay as Chaplains. In this year there are 39 Naval Instructors, 11 of them graduates. The senior had entered in 1836, when warrant rank was first instituted.

The rise in their status coincided with another decline in the fortunes of the Royal Naval College. In 1816 it had been laid down that the number of students was to be 100 during war and 70 during peace. But unfortunately the conclusion of the long wars with France and the lack of any organised system of retirement, resulted in the Service being overstocked with officers of all ranks. A number of "non-collegian" officers were also still being entered and it was generally considered that the curriculum of the college was too complicated. In July, 1837, the college was closed. It had achieved good work and produced some distinguished officers. But there was a feeling in the service that a mere practical training was required. In 1832 the "Excellent" had been commissioned under Captain Thomas Hastings as the Naval Gunnery School. Captain Hastings, who persevered in his work in spite of some opposition, was strongly supported by King William IV and the Board of Admiralty. In 1839 he was appointed Superintendent of the Royal Naval College, which re-opened as a training college for commissioned officers and mates. Candidates for commissions in the Royal Marine Artillery were also prepared. "It is impossible to estimate the advantages the Naval Service has derived from those two establishments," wrote a previous Captain of HMS. "Britannia", in 1863. "By giving officers of all ranks, from Captains to mates inclusive, an opportunity of studying the scientific parts of their profession, many were enabled to gain the instruction they had missed in their youth". Many were the tributes paid to the Rev. Main Professor at the College. By becoming an institution for adult students, it was the predecessor of the present Royal Naval College at Greenwich, to which it was transferred in 1873.

For 20 years after 1837 "volunteers" were trained at sea only. No wonder the status of the Naval Instructor as raised, for on his shoulders lay the education of Naval Cadets in an increasingly technical age. Unfortunately there were still not enough instructors to go round, there was no accommodation for them in small ships and insufficient candidates forth-coming to fill them if there had been. A hundred cadets were entered annually, and the difficulties well known today, of imparting theoretical knowledge when the students were so much occupied in the duties of the ship, soon arose. Many failed to pass their examination for Lieutenant and others quitted the service before they took it. "But while the education of those who were intended some day to command our ships and fleets as thus generally neglected, or left to chance" writes a critic, who admits that there were numerous exceptions to his strictures, "much pain was being taken to give increased intelligence to the seamen who were allowed to remain a year under a course of training, which included both schooling and practical teaching". It was said that when the "Naval Apprentices", first drafted from the training ship, and the Naval Cadet fresh from shore, met on the quarterdeck or in a boat, the former was more capable of taking the command.

But Naval education was increasing its scope. By an Order in Council of 18th February, 1833, Dockyard Schools were established. "The Admiralty by this enlightened policy thus became the pioneers of organised technical education in this country and laid the foundations of training schemes for apprentices". The advance in shipbuilding was the immediate cause of this advance in education. The object of the schools was 'to provide and maintain a system of part-time education whereby the men in the dockyard might develop their abilities and improve their position'. Attendance was to be compulsory and to be partly in working hours and partly in the apprentices' own time. Attendance after the first year was to be dependent on the ability of the apprentice to

benefit by the later courses. The syllabus, of course, has been revised to keep pace with educational and technical advance; but those 'underlying principles are still maintained today.

Meanwhile the system of shipping Naval Cadets off to sea with no preliminary training was found to be unsatisfactory. The Crimean War of the "fifties" and the transition of the service from sail to steam led to the re-opening of the Naval College. In 1856 a committee was set up to consider a syllabus of instruction, of which Professor Main and a Naval Instructor (K. M. Knapp, Esq.), were members. The report of this committee was approved by the Board of Admiralty and resulted in the commissioning of H.M.S. 'Illustrious' which had previously been engaged in training boy entries, called "novices" for the Service, The 'Illustrious' was fitted out to receive Naval Cadets, who were entered between the ages of 13 and 15. Naval Instructors under the Rev. R. M. Inskip, were appointed to the staff. The syllabus was a broad one, but the time allowed for its completion was short. Instructors in seamanship, French and Drawing were appointed. Weekly lectures on the steam engine were given and the Chemist of the Dockyard was imported to teach the Cadets that science, while an Instructor from the 'Excellent' dealt with swordsmanship, gymnastics and swimming. In addition to the crowded curriculum which made intelligent foreign observers ask how many years it to complete it, another difficulty lay in the varying periods individual Cadets remained in the training ship. Entering at different ages, they passed out as soon as possible after their fifteenth birthday. So the younger ones fared better than their elders. The age for admission was therefore reduced and the stiffness of the entrance examination declined with it; 12 to 14 became the new ages of entry and, in 1859, the "Britannia" replaced the 'Illustrious' as the training ship. She was first moored at the entrance to Portsmouth Harbour and in her the modern system of training Naval Cadets was commenced.

As naval education developed, so did the status of the naval instructors and the schoolmasters. 1861 marked a turning point in the career of the former, for in that year he was appointed by Commission. If he desired, he might go out of uniform, but if he did not, he began to wear the blue distinction cloth which now marks the Instructor Branch to the outward eye. This blue stripe had formerly denoted the master, an important functionary in the days of sail, but now in a decline. From 1864 Naval Instructors were advanced in rank according to seniority, entering as two stripers and attaining three stripes after 15 years' service. The pay was fixed six years later at 12s. a day on entry rising to 22s. a day after 22 years service, In 1879 the wearing of uniform became compulsory.

The Seamen's Schoolmasters, with the rating of Petty Officer, First Class, underwent a rise in status when continuous service was introduced into the Navy in 1852. They were required to teach the boy entries and, in 1862, their title was altered to Naval Schoolmaster and they were expected to obtain a teacher's certificate. School in ships of the Fleet was conducted under the supervision of the Chaplain and, in the Boys' Training Ships, the Head Naval Schoolmaster was given acting warrant rank and received an extra 2s. a day while so employed. He wore black braid on his sleeve. In 1867 the Naval Schoolmaster, was rated Chief Petty Officer, ranking with the Master-at-Arms and drawing the same pay. His frock coat was adorned with two old stars on the collar as the Chief Writer's. A system of training Naval Pupil teachers was now started. Selected bluejackets were given three years' training and, if they passed the Queen's Scholarship examination, were sent to a training college. This scheme, however, was short lived owing to the antagonism of non-service teachers, and came to an end in 1874. But the Admiralty persevered and began to train Greenwich Hospital school boys who, after two years as pupil teachers and another in a training ship, took their teaching certificates. In 1889 the branch had another rise, when Head Naval Schoolmasters were given the substantive rank of Warrant Officers.

But school in seagoing ships was not a success and in 1889 the Naval Schoolmasters were withdrawn from the Fleet and employed in the training ships and the gunnery and torpedo schools. Many of them were either given a free discharge or allowed to become Chief Writers. Some of the latter returned to schoolmastering when vacancies occurred. But provision for school in seagoing ships still continued to be made by granting to Captains the power to appoint "Acting" Schoolmasters. These were suitable ratings from the ship's company recommended by the Chaplain; and they received, as they still do, an additional allowance for conducting the school.

As the administration of the school in a ship was the responsibility of the chaplain, so the elementary education of the Fleet was organised from 1858 by the Rev. Dr. J. Wooley, who assisted in the appointment of schoolmasters. After his retirement in 1874, the Chaplain of the Fleet was assisted in educational matters by the successive Directors of Studies at Greenwich College. But he was advised in the appointments of schoolmasters by a Naval Instructor. No Naval officer had as yet become Director of Naval Education and, in 1905, that post was filled by Professor Ewing who had become Director of Studies at Greenwich two years previously. He appointed Naval Instructors and, in 1909, he took control of schoolmasters, although the link between the latter and the chaplain was not severed until the First World War. Sir Alfred Ewing made considerable educational advance in the technical education of boys and dockyard apprentices. He reorganised the dockyard schools, introducing laboratory work as part of the normal curriculum. "Technical lecturers were appointed to give professional instruction in shipbuilding, general and marine engineering and later in electrical engineering to third and fourth year apprentices of appropriate trades".

Meanwhile the training of Naval Cadets in the "Britannia" was producing excellent results. It was desirable, however, that accommodation should be found on shore for the cadets and the result was the institution of the Naval College at Dartmouth and at Osborne. In 1903, the system of entry and training of Cadets was altered and it was considered that, if they remained at school until they had passed the age of 17, they would have sufficient grounding to enable them to assimilate the technical parts of their profession. Instruction at sea would therefore be no longer necessary. The direct result of the new scheme was, therefore, the closing of the entry of Naval Instructors in 1904. The branch was to be allowed to die out.

The First World War, however, made great changes. In 1914 the Admiralty was already doubtful of the wisdom of abolishing the Naval Instructor and considerable numbers were entered in the next few years. The schoolmaster was also affected. In 1904, Chief Schoolmasters had been created with commissioned warrant rank. The Service was becoming increasingly technical and it was realised that the standard of scientific knowledge required for promotion was steadily rising. The Hook Committee in 1912 recommended the institution of educational tests for advancement and, although action was deferred until the war was over, yet the Commander-in-Chief of the Grand Fleet recognised the value of schoolmasters and requested that they should be appointed to ships. Nearly 250 were entered and it was soon seen that their status as Chief Petty Officers was insufficient. In 1916 they were all given Warrant rank and ceased to be assistants to the Chaplain, while the last of the Chaplain and Naval Instructors disappeared in the early twenties.

During the war, the rank of Chief Naval Instructor had been instituted and an officer with four stripes appeared in the branch for the first time in 1917. The war was also removing other anomalies of the past. The compulsory contributions of the young gentlemen had lingered on until 1914, when each Midshipman was required to pay 3d a day to the Naval Instructor. In that year the Admiralty undertook to pay them and continued to do so until

1919 when these tuition fees were abolished, the pay of Naval officers revised and a system of ranks, ranging from Instructor Lieutenant to Instructor Captain was introduced. The Instructor Branch was reconstituted in 1922 and permanent commissions were awarded to temporary officers recommended after a specified period. The schoolmasters also took a step forward at the end of the War with the introduction of Senior Masters and Headmasters of Lieutenants' rank. But the pay was poor and recruits consequently few. It so happened, however, that there were reductions in the dockyards at this time and many apprentices who had passed through the schools and who were not required in the dockyards were given the opportunity of becoming Schoolmasters. They had already received an excellent technical education, and after a six months' course in 'Defiance' and experience in the boys' training ships, they became successful Schoolmasters. The adjustments of pay in 1922 to correspond with the Burnham Scale did away with the shortage of recruits to the branch, the status of which continued steadily to rise. In 1927 the first Schoolmaster was promoted to Headmaster with Commander's rank, and, nine years later, the titles were changed to Headmaster Lieutenant and Headmaster Commander. In the same year, a Naval Officer became Director of the Admiralty Education Department for the first time, when Instructor Captain A E Hall was appointed.

It was a natural development of the appointment of a Naval Officer as Director of Naval Education and Head of the Instructor Branch that increasing attention was paid to the Naval potentialities of the Instructor Officer and the Schoolmaster. Instructor Officers, though mainly scientists, had already been encouraged to become interpreters in modern languages and these qualifications were of value whenever Instructor Officers served in H.M. Ships abroad. Now, the more complex operations requirements of the Fleet were met by the extension of their duties, and as at this time there was keen competition in civil life for good teaching and technical appointments, the academic and personal qualities of new entries rose considerably.

All new entries are required to have the qualities of an officer capable of taking an integral part in the working and fighting of the ship. Among other things the Instructor Officer became responsible to the Commanding Officer 'to assist with his scientific knowledge, in solving any problems that might arise'. The application of this regulation took many forms; at the outset it promoted that breadth of view by which it is the Instructor Officer's duty to take a full interest in the scientific aspect of naval activities. His dual function as scientist and teacher was established.

Among his special commitments two may be mentioned. The Instructor Officer became Bridge Plotting officer and so developed into a key member of the team which later became the Action Information Organisation and thus extended the scope of his former T.S. duties. In 1935 with the formation of the Naval Meteorological Service, Instructor Officers were among the first to take part in the new organisation. An increasing number of Instructor Officers have since qualified in meteorology and today form the backbone of the Naval Weather Service.

Meanwhile the growing requirement for technical instruction and the need for a close and practical relation between education ashore and afloat, brought about a steady extension of naval instructional duties until in 1939 the College at Dartmouth, Greenwich and Keyham, the Boys' Training establishments and the various specialist schools (Signals, Gunnery, Navigation, A/S, Mechanical Training etc.) contained a significant proportion of officers of the education branch - a far cry from the Selborne scheme of 1903 in which junior officers were educated by civilians ashore and technical instruction was undertaken at sea by executive officers.

During the last war the wisdom of having a body of Naval officers highly qualified in mathematics and science was amply demonstrated. A wide range of operational duties were undertaken in

addition to an instructional programme which had to be expanded and elaborated to meet war requirements and conditions. By 1944 there were some 775 Instructor Officers and Schoolmasters serving, of whom over 300 were qualified in meteorology.

While the educational work of the Navy continued during the war to be founded on the technical requirements of the Fleet, the need to maintain morale and to afford broader educational facilities, especially to those who joined under the National Service Acts, acted as a stimulus to cultural activities which were formerly dealt with by the various resources of the ships' personnel. His Majesty, in July, 1939, had written to the Second Sea Lord expressing his interest in the general education and welfare of those temporarily called up (500 joined in August, 1939) and from this sprang what has now become the Further Education scheme. The Central Advisory Council for Adult Education in H.M. Forces was set up in December, 1939, offering the assistance of the Universities and other educational bodies in meeting the wider educational needs of men and women in H.M. Forces at home. Although more use was made of this Committee by the other two Services in the days of the "phoney war", and during the reorganisation which followed Dunkirk, it provided a number of educational facilities and as a development through its successor, the Central Committee for Adult Education in H.M. Forces, all Universities are now able to offer further educational facilities to Service personnel.

The Education branch itself also expanded to enable this general educational programme to be organised and carried out in addition to its normal instructional duties. Instructor Officers and Schoolmasters with Arts qualifications were appointed for the first time and on the material side dully equipped Information Rooms were instituted with Reference Libraries and arrangements for lectures, discussions, films, exhibition, etc.

The most important civil educational event of the war was the passing of the 1944 Education Act, which not only made provision for Further and Adult Educational Facilities a statutory requirement, but also had the general effect of ensuring that educational arrangements in the Services took their appropriate place in the Country's educational system. The implementation of the Act will take many years complete, since it involves the virtual rebuilding of the majority of schools, setting up of County Colleges and considerable re-equipment, particularly in technical schools, but the pattern of its application to the Services is already clear. Boys' and other training establishments to which boys are recruited before school-leaving age are required to conform more closely to the educational system obtaining in civilian schools, and a wider syllabus of instruction, to include more than the minimum naval technical requirements is followed. Further the education abroad of the children of service personnel has become the responsibility of the Services and as a result of naval policy to allow families to accompany personnel serving abroad, naval Children's Schools have been enlarged at Malta and Gibraltar and set up at Trincomalee, Colombo and Singapore.

The Act also affected H.M. Dockyard Schools which, founded as we saw in 1843, had for over a century led the way in giving a first class technical schooling to Dockyard Apprentices. The school buildings at Portsmouth, Devonport and Malta were destroyed during the war, but all continued to function even under the most difficult improvised conditions, maintaining a steady flow of potential professional officers and high grade craftsmen for the Yards. A Committee sent up in 1945 to consider the recruitment and training of civilian trade apprentices and boys recommended the provision of a broadened curriculum introducing a leavening of Arts subjects, and arrangements to ensure Ministry of Education recognition of the courses for the award of National certificates in Technology. All recommendations aimed at ensuring that the schools remained in the forefront of technical education, and in approving the report of the Committee the Admiralty showed their

appreciation of the value of these schools, which are staffed at the Gibraltar and Malta yards by Instructor officers.

Towards the end of the war, problems of resettlement of volunteers and "Hostility Only" officers and ratings necessitated consideration of further educational arrangements. A Vocational Training scheme had been in force in the Navy since 1928 for men about to go to pension, and Vocational Training officers had been appointed to the chief naval ports at home and abroad to organise classes in a limited number of trade courses. From VE day onwards men and women officers and ratings were able to have a wide variety of courses varying from pre-university of professional refreshers and instruction in skilled trades to lowly but no less popular 'home maintenance'. These courses were organised and conducted by the Instructor branch with the assistance of qualified E.V.T. officers and ratings. In 1945 there were over 1000 officers and several hundred ratings engaged in this release E.V.T. work.

Reorganisation of the Navy for post-war conditions produced little fundamental change in the content of naval education. A renewed emphasis on the needs of the operational fleet was necessitated by the strictest economy in manpower and expenditure, but nearly all wartime provisions were retained, though on a reduced scale. But there was a fundamental change in the organization of the education branch in 1946. The Schoolmaster branch was abolished by the absorption into the Instructor Branch and thus all Instructor Officers attained full wardroom status - a process only made possible by the standards which the Schoolmaster branch had maintained during the war. A corollary of the reorganization was the introduction of the short service scheme for Instructor Officers, an arrangement by which the rapid expansion of the branch can be achieved in case of an emergency. The new corps of permanent officers is being built up from these by a process of transfers and subsequent selective promotion. At present about 320 Instructor Officers are short service officers.

One further post-war development may be mentioned. With the creation of the Ministry of Defence, machinery was set up by which the educational services of the Forces were offered a means of co-ordination. An Education Co-ordinating Committee under the Chairmanship of the Ministry of Defence contains representatives of the Ministry of Education as well as the three services, and makes recommendations to the Minister's Committee on questions of common interest to the Educational Services. A standing sub-committee consisting of the three service Directors of Education, has resolved such question as common regulations for all Service Children's Schools overseas; Service education in citizenship and Current Affairs, and some problems of the services manpower and resettlement. In common with the other two services, the Navy has also its Educational Advisory Committee with a membership of prominent University, professional and industrial leaders who advise the Board of Admiralty on educational matters of national consequence.

At the present time the Naval Education Service is not only fully integrated with the Royal Navy but holds a specific place in the country's educational system. It is thus able to continue and develop the education provided by the country's schools, meet the training requirements in the Service and ensure that at the end of their naval careers men are equipped for their civilian responsibilities.

Meeting every changing requirement of the Fleet, the Instructor Branch is prepared for all educational and training developments. Unique in the Navies of the world, its value should prove even greater in the future than in the past.

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