

ADMIRALTY RE-ORGANIZATION AND THE ENGINEER-IN-CHIEF OF THE FLEET

When, on October 1st, 1958, the new Ship Department of the Admiralty came into being, there was a break with over 80 years of tradition when the Engineer-in-Chief of the Fleet ceased to be responsible for the design, production, and maintenance of the propelling and associated machinery of H.M. ships.

To understand this step, which at first sight appears revolutionary, but is in fact evolutionary, it is necessary to trace briefly the history of engineering and of the engineering branch in the Navy and of the Admiralty organization.

The Birth of the Engineering Branch

Ten years after the first steam-ship was commissioned into the Navy, civilian engineers were replaced by naval engineers appointed by warrant, and ten years later, in 1847, engineers were first appointed by Queen's commission as non-military officers. This was the birth of the Engineering Branch.

Early Admiralty Organization

In 1883, there was a single Admiralty department responsible for the design and construction of ships and all their equipment. In 1887, a separate engineering department was formed and in 1889 the first naval officer became Engineer-in-Chief. In 1902, a separate electrical engineering department was formed. This splitting up of the original single department into separate professional elements was logical at the time both because each subject was rapidly developing and deserving of special and concentrated study, and also because of the need to foster and build up the engineering professions within the Navy. It was not directly advantageous to the conduct of Admiralty business.

At that time, the Engineer-in-Chief's Department was responsible for ordnance material, but in 1906, this work and the officers employed on it transferred to the Naval Ordnance Department, and other engineer officers appeared in Torpedo Depots.

In 1912, an Air Department was formed in the Admiralty to which an engineer officer was attached and, until the creation of the R.A.F. in 1918, a few engineer officers continued to be employed in the design, construction and maintenance of naval aircraft and airships.

Thus the profession of engineering within the Navy, which had started as marine engineering, began to branch out into other fields and the first steps on the road to it becoming mechanical as opposed to simply marine engineering were taken. Nevertheless, the main business was still marine engineering, and this was the sole concern of the Engineer-in-Chief of the Fleet.

Sub-Specialization

The beginnings of true sub-specialization occurred in 1928 when engineer officers were appointed to the new 16-inch gun battleships *Nelson* and *Rodney* for Gunnery Engineering duties, and this developed into the creation of the G/E sub-specialization early in World War II. After the war, TAS material was embraced and the O/E sub-specialization emerged.

From 1924, a few engineer officers had been employed as aircraft pilots, but it was not until 1938, when the Navy recovered from the R.A.F. responsibility for the Fleet Air Arm, that engineer officers took over technical duties in the F.A.A., Admiralty and Air Ministry. This was the beginning of the A/E sub-specialization.

Post War

Thus, by the end of World War II, the Engineering Branch was firmly established as a mechanical rather than marine engineering branch with three sub-specializations of marine, air and ordnance engineers, and officer training was modified to suit.

The Engineer-in-Chief of the Fleet had thus developed two separate functions : one as head of what was virtually the Marine Engineering Department of Admiralty, and the other as Head of the Engineering Branch, covering a wider field than simply marine engineering alone, and including all engineering personnel.

The General List

The post-war period produced a change in the naval pattern and raised problems of the personnel structure of the Navy and of Admiralty organization.

Study of the first of these problems resulted in the introduction of the General List of officers. This was based both on the need to stabilize the exercise of the essential function of operational sea command in the face of a smaller Navy, and on the desire to make the best use of senior specialist officers in the higher administration of the Navy.

It is implicit in this new structure that eventually the need for a designated head of the engineering specialization will disappear.

The Admiralty

Study of the problem of Admiralty organization for material (the Controller's Departments) has now resulted, among other things, in the reintegration of the departments responsible for marine engineering, electrical engineering and naval architecture into a single Ship Department, thus bringing the wheel full circle. This is necessary administratively due to the ever-growing complexity and inextricable mingling of mechanical, electrical and structural aspects of ship design and to the pressing need for their proper integration into a homogeneous ship.

Engineer-in-Chief and Director of Marine Engineering

So, at this stage it has become logical to separate the two functions performed by the Engineer-in-Chief of the Fleet ; the function of head of the marine engineering department in the Admiralty passing to the former Deputy Engineer-in-Chief under the new title of Director of Marine Engineering (D.M.E.) in the Ship Department, while the Engineer-in-Chief of the Fleet retains, while the need remains, his position as head of the Engineering Specialization of the Navy and his responsibility for naval engineering personnel.

Evolution

Against this historical background, this latest step, superficially strange when the Navy is on the threshold of a new era in ship propulsion, may be seen as one in the evolutionary development of the profession of Engineering in the Navy.