# MARINE ENGINEERING TRAINING IN HMAS NIRIMBA

Commander J G O'Neill
Marine Engineer, Submarine Specialist
Apprentice - January 1957 Intake
Training Commander 1982-1984

*"It is often said that one Engineer will get more out of a stoker than another. In general it will be found that the most successful engineer is the man who manages his stokers best. It is very difficult to define on paper what is meant. It is a thing to be felt or seen not described. The engineer who really knows his business will give his fires a fair chance to get away. He will work his engines up by degrees and run a little slowly for the first few minutes".*

(From a Naval Engineering Manual - 1895)

Naval marine engineering training began in the last century with the passing of sail and the introduction of the ironclad steam driven ships. Diehards of the old Navy would not accept engineers as officers for many years and it was not until 1886 that engineer officers were granted commissions. The rating of Engine Room Artificer was gazetted in the Royal Navy in 1868.

Naval marine engineering training for Australian sailors began at the Williamstown Naval Depot in 1871 when the ironclad monitor HMVS CERBERUS arrived from England after a horrendous voyage of 120 days to become the Flagship of the Victorian Naval Forces. The Victorian Naval Forces, which existed until 1901 when Federation melded all the Colonial State Navies into the Commonwealth Naval Forces - had at its peak, 16 ships of war. All of these were steam driven including the huge wooden walled battleship HMVS NELSON. NELSON was fitted with steam engines after her arrival from England to commission as a training ship for the Victorian Naval Forces in 1867. After the Commonwealth Naval Forces period 1901-1911, the former Colonial State Navy ships were transferred to the newly formed Royal Australian Navy. The Engineering Training Section of the Williamstown Naval Depot was the only naval training centre in Australia for engineering branch sailors. Consolidation training of those sailors was carried out on board ships of the Australian Squadron and the Australian Auxiliary Squadron.

Until 1921, Engine Room Artificers for the Royal Australian Navy were recruited either from the Royal Navy or from shore as partially or fully trained tradesmen of the Fitter, Boilermaker, Pattermnaker, Coppersmith and Enginesmith trades. They underwent a form of naval indoctrination training at the Williamstown Naval Depot. They were granted the status of Petty Officer on completion of initial naval indoctrination training. In 1921, the Engineering School opened at Flinders Naval Depot, Westernport, Victoria (HMAS CERBERUS), the equipment for the school having been transferred around from Williamstown in the old gunboat PROTECTOR.

Training of Engine Room Artificer Apprentices in HMAS NIRIMBA commenced in 1956 and the first intake of apprentices of the ERA category comprised:

Engine Room Artificer Apprentices G W Patman, R J Vase, J B Blunt, K L E Johnston, D S Prout, H T Leathen, P J T Crook, K T A Dunn, C M Fowler, L B Dyball, D K Miller, F J L Holyoak, J Reilly, D C Harper, C Secker, T L L James, H L Moon, J Steeder, R E Lewis and B J Merchant.

D C Harper & D S Prout First Entry 1956

Two additional apprentices of this intake originally entered as Aircraft Artificer Apprentices - R E Collins and R J Moores transferred to ERA Apprentices whilst R L Donnell transferred from the Ordnance Artificer category. This intake was subdivided into the categories of Fitter and Turner and Boilermaker/Welder. Of this entry, 15 ERA (Fitter and Turner) apprentices graduated, whilst only one Boilermaker/Welder made the grade.

One of the Engine Room Artificer Apprentices of the second intake (January 1957) Apprentice John O'Neill, returned to HMAS NIRIMBA in 1982 as the Training Commander - the first graduate of HMAS NIRIMBA to attain this achievement John O'Neill specialised in Submarines early in his career. On 19th June 1982, Commander John O'Neill had the great honour of officiating at the prize giving for the June 1982 Passing Out Parade.

Marine engineering training commenced in building 259 at the eastern side of the Establishment adjacent to the Richmond railway line. The first Officer in Charge of that section was Lieutenant Commander H Kent and Mr Wally Swann was the first instructor in fitting and machining. The Drawing Officer, Mr. Vince Collins, was also domiciled in building 259. Later draftsmen Tom Watson, Bert Taylor, Ron Moffatt and Derek Searle served in the drawing office.

In 1962, as a result of the Rating Structure Review (RATSTRUC), some changes were made in the engineering training stream in HMAS NIRIMBA. These did not constitute the degree of turbulence experienced by changes to the Electrical Branch as described in Chapter 5 dealing with the Weapons Electrical Engineering Branch. However, the training for all apprentices was reduced from four years to three and a half years and a new category of Engine Room Artificer Apprentice was introduced, that of the Diesel Category. The first intake of Diesel Category Apprentices entered HMAS NIRIMBA in January 1963 and of these seven initial entrants - six graduated.

No Boilermaker/Welder apprentices were entered in 1963 and after 1966 this stream of category training ceased.

In 1972, power category apprentices of the Weapons Electrical Engineering Branch were relegated to the Marine Engineering Branch as it was thought by the Naval Board that the power category sailor should be under the control of the Ship's Marine Engineering Officer as most of his heavy work was confined to the engine room in the maintenance of Turbine Alternators and other

First Apprentice Intake - First Day - 1956.
Apprentice B L Swan, now Commander - 8th from Right, Top Row.

heavy machinery. There was for a time, a training stream in HMAS NIRIMBA titled Marine Technical Power Electrics. Happily the power sailor is back under the control of the Weapons Electrical Engineering Officer, but it is believed that moves are afoot to transfer the power electrics sailor again to the Marine Engineering Branch.

A comprehensive committee of review investigated sailor training structure (SAILSTRUC, in 1970 and recommended some radical changes to technical training. At that time apprentice training time in HMAS NIRIMBA was reduced to two years and the categories of marine engineering trainees were changed to:

Apprentice Marine Technical Propulsion (Fitter and Turner),
Apprentice Marine Technical Hull (Shipwright) and
Apprentice Marine Technical Power Electrics (Electric Fitter Power)

Readers will see from this that the former Naval Shipwright Apprentice, previously a member of a separate branch trained by Shipwright Officers and civilian shipwright trade instructors in NIRIMBA then became integrated into the Marine Engineering Branch and part of the Marine Engineering School student body.

Marine engineering personnel of the Hull category are sometimes given the opportunity to cross train in propulsion engineering. One of the first entrants in HMAS NIRIMBA Naval Shipwright Apprentice B L (Brian) Swan underwent cross training after attaining his Commission as a Shipwright Officer. He is now a Commander and the Base Technical Officer, Naval Support Command in Sydney.

In 1972, the most valuable acquisition of the Marine Engineering Training Section came with the establishment of the Marine Engineering Demonstration Building. This modern technical training unit contains working sections of ship's propulsion machinery as well as specialist sections for advanced training in Internal Combustion Engines, Gas Turbine Engines and small craft engineering, including an outboard motor maintenance training section.

In 1976, a further stream of marine engineering training commenced in HMAS NIRIMBA. This ensued from the scheme of phase training which gives the opportunity for adult entry recruits to join up with NIRIMBA entry trainees at a stage in their careers. If successful at phase training, these trainees are given equal trade recognition with their NIRIMBA entered counterparts. Only the best adult trainees are selected for phase training.

Mechanician training, which provides trade recognition for sailors of the adult entry stream began in 1960 in HMAS NIRIMBA with a course of six Marine Technical Propulsion Petty Officers who carried out the then longest course for sailors in the RAN (apart from apprentices) - a period of two years. This stream of training continued in HMAS NIRIMBA for both RAN and Royal Malaysian Navy Petty Officers, until December 1983 when that training avenue ceased.

Some of the officers in charge of marine engineering training in NIRIMBA have been:

Lieutenant Commander H Kent, Lieutenant Commander G C Derry RN, Lieutenant Commander J Batten RN, Lieutenant Commander C B Dawe RN, Lieutenant Commander L W Kirke RANR(S), Commander Bruce Zeigler, Lieutenant Commander Peter Hugonnet, Lieutenant Commander Taff Jones, Lieutenant Commander Fred Bumford RN, Lieutenant Ted Sangwell, Lieutenant Commander C P Smith, Lieutenant Commander Mike Clarke, Lieutenant Bill Forder (former apprentice).

Some of the Technical Instructors have been:

Mr Reg Atack, Mr L McKinnon, Mr Arthur Webb, Mr Dick Roebuck, Mr Graeme Giles, Mr R Morton, Mr King.

The staff of the Marine Engineering School HMAS NIRIMBA at the end of 1983 comprised:

Lieutenant Commander Mike Clarke (retired in late 1983), Lieutenant Commander Peter Cunningham, Lieutenant Steve Goode, Lieutenant Peter Hopgood (left in late 1983), Lieutenant Ian Pickering, Sub Lieutenant George Bewett, Warrant Officers John Davison and 'Zero' McNaught; civilian instructors Messrs Graeme Giles and Dick Roebuck.

Because of its close affinity with the Marine Engineering Branch, the Apprentices' Steam Club is maintained and operated from the Marine Engineering Demonstration Building. The story of the evolvement and achievements of the HMAS NIRIMBA Steam Club is related elsewhere in this history.

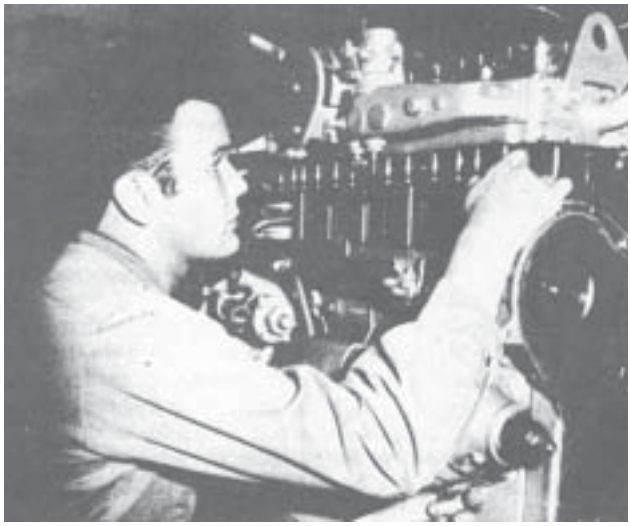
The first Commanding Officer of HMAS NIRIMBA (RAN Apprentice Training Establishment), Captain Frank Leveson George, was a Marine Engineering Officer and other officers of the Marine Engineering branch who have commanded HMAS NIRIMBA have been Captain B W Mussared, Captain F W Purves, Captain H J Bodman, Captain T R Fisher, Captain J S Partington and Captain D G Holthouse. Each one of these officers reached rank above Captain in the Navy. Captain George retired in the rank of Rear Admiral.

The three bladed ship's propeller - the badge of honour of the Marine Engineering Branch - calls to mind an anecdote about the Engineering Branch written in 1927 in the journal of the RAN - 'Spindrift.


"*The efficiency of the propeller remains constant from the time it is buttoned on to the end of the shaft until the last sad day when the ship is finally cast on the scrap heap*".

The writer of the anecdote, in the style of the day also postulated the philosophy that the three blades of the propeller represent the three virtues of Efficiency, Honesty and Modesty. We can safely accept the first two virtues in any case, though the third - Modesty - bears some reflection when old NIRIMBA hands and new recall some of the characters who have graced the halls of the Marine Engineering Training Section in the past 28 years.

Over the years of its life the Marine Engineering Training Section of HMAS NIRIMBA has trained thousands of Australian marine engineering sailors and sailors from Allied Navies.

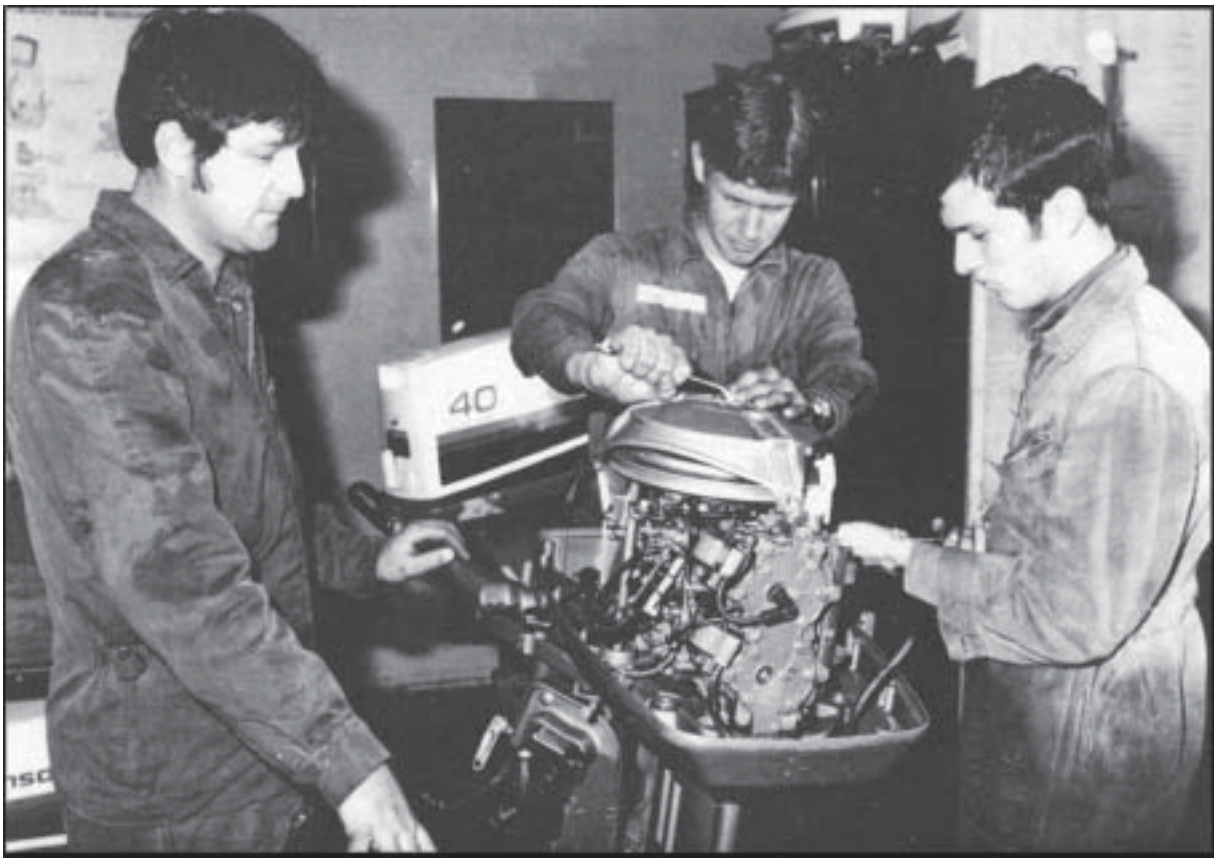


Internal Combustion Engine Training - NIRIMBA

Apprentices of the First Intake - 1956

Somehow nostalgia returns to old Engineers when they recall their tough origins in the days of coal burning ship and the mighty men who toiled down the hole in those far off days. One verse of a poem written about the Engineering branch in the Navy during World War I reads:

"*You can pick him from a million,*
*He's the man of brawn and brain,*
*He's just a dirty dusty Stoker,*
*But a white man all the same*".




Outboard Maintenance Display - Open Day 1983
(Chief Petty Officer P Butt)