



A Career as a Non-Commissioned Member Marine Electrician

**STRONG
PROUD**
TODAY'S Canadian Forces

WHAT THEY DO Marine Electricians (MAR EL), as members of a ship's Engineering department, are responsible for the operation and distribution of electrical power throughout the ship. MAR ELs assist in maintaining the electrical and electronic equipment needed to keep the ship moving, as well as navigational and domestic lighting and services on board.

- Operate all main and auxiliary electrical power-generating and distribution equipment
- Operate battery chargers, electrical switchboards and meters
- Control frequency voltage and loading of generators
- Assist in testing, tuning, repairing, installing and inspecting electrical/electronic equipment systems
- Inspect, maintain and install cabling and wiring
- Compile logs, maintenance reports, returns and schedules

Qualification Requirements

Marine Electricians must be responsible individuals who are manually dexterous and have an interest in dealing with technical equipment. A sound academic background with an emphasis on physics and mathematics are assets in this occupation. MAR ELs must possess initiative and the ability to improvise and work under stress when necessary. They must be able to work with little supervision and function as a member of a team.

goal of this course is to ensure that all recruits maintain the CF physical fitness standard, as a result, the training is physically demanding. BMQ covers the following topics:

- Policies and regulations of the Canadian Forces;
- CF drill, dress and deportment (the "three D's");
- Basic safety;
- First aid;
- Personal survival in nuclear, biological and chemical conditions;
- Handling and firing personal weapons;
- Cross-country navigation; and
- Personal survival in field conditions.

Basic Military Occupational Training

On completion of the BMQ, Naval Weapons Technicians attend Naval Environmental Training (NETP) at the Canadian Forces Fleet School (CFFS) in Esquimalt, British Columbia or Halifax, Nova Scotia. Training takes approximately 5 weeks and includes:

- Naval history and organization
- Shipboard firefighting and damage control
- Watchkeeping duties
- Seamanship

The Second portion of the Basic Military Occupational (MOC) Training takes place at the CFFS in Esquimalt. Training takes approximately 9 weeks and includes:

- Electrical theory
- AC and DC machines
- Power generation and distribution
- Industrial/electrical safety
- Use of hand tools, electrical meters and lab volt equipment (simulator)



Training

Basic Military Qualification

The first stage of training for everyone is the 10-week Basic Military Qualification (BMQ) course at the Canadian Forces Leadership and Recruit School in Saint-Jean-sur-Richelieu, Quebec. This training provides the basic core skills and knowledge common to all trades. A

Career Development

The job of Marine Electricians is a challenging technical occupation offering excellent training and good opportunities for career progression. Service at sea provides travel opportunities worldwide. Personnel who demonstrate ability and ambition are selected for advanced technical training. On successful completion of a year-long course, they are assigned to the technical occupation of Electrical Technician (331). They perform technical maintenance and supervisory duties.

Advanced Military Occupation Training and Specialty Training

Personnel who demonstrate the required ability and ambition will undertake advanced military occupation training through formal courses and on-the-job training as they progress in their careers. Limited specialty training may also be available. Below are examples of training related to this occupation.

Advanced Training Courses

- Electrical/Electronic Theory
- Fault Finding and Repair
- Fluid Power (Pneumatics and Hydraulics)
- Instructional Techniques (IT)
- Integrated Machinery Control System (IMCS)
- Vibration Analysis (VA)

Specialty Training Courses

- Ship's Diver
- Submariner
- Helicopter Haul Down Equipment (RAST)
- Programmable Logic Controller (PLC)

Working Environment

MAR ELs spend much of their careers on board ships stationed in Halifax, N.S. or in Esquimalt, B.C. They normally work in enclosed spaces, above and below the waterline. They may be required to work for long periods in poorly lit and cramped spaces which are often noisy, hot and humid. They may be exposed to heights or extreme weather conditions when doing repair or maintenance work on masts, antennae or upper deck equipment. They are also subject to hazards such as electrical shock, falls and burns. On board ship, they live in cramped quarters where there is a minimum of privacy. They also stand watches (shifts) which result in irregular meal hours and rest periods. As with all sea-going personnel, they are sailors first, electricians second. In addition to their occupation-related duties, junior personnel are employed in out-of-occupation duties such as cleaning and painting the ship, working in the cafeteria or laundry, standing sentry duty or loading supplies.

Appropriate training, environmental clothing and equipment are provided, and Marine Electricians' health, safety and morale are closely monitored.

Related Civilian Occupations

- Electrician, Marine Equipment
- Electrician Apprentice
- Electrician Helper (Shipboard)
- Electrician Repairman Helper

For more information, please call the Canadian Forces Recruiting at **1-800-856-8488**, or visit our Web site: www.forces.gc.ca

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