

COMMUNICATION SHOP: (reference from FMF CS script p.34)

Q: Do the technicians come and train here or is there a specific training program?

A: Training is provided offsite at FMF CS/CB school or we send the technicians for training at OEMs. Working on Ship and Submarine Communications Equipment requires a high standard of training and usually requires specialist coursing. We maintain systems that the OEM is no longer supporting. We repair equipment down to the circuit board level.

NAVIGATIONAL AIDS SHOP: (reference from FMF CS script p.32)

Capabilities: Stabilized Horizon Bar Reference System (SHRS), CCTV Camera Systems (p/o IPMS) – Upper decks only, SHINNADS, Mk49 Inertial Gyro System, Shipboard Clock System, SRD331 Doppler Speed Log, Wind Direction & Speed Detection and Display Systems, Sea Tel Satellite TV System, Navigation Data Distribution Systems (NDDS).

Q: On repairs, what if there's an obsolete part source?

A: There is lots of experience at FMFs to repair components (ex. Circuit card). When the item is obsolete it could be either sent for disposal or Crown Asset. Work orders are submitted to disassemble the part and if the part is good it could be used for something else. It is better for longevity and be able to stretch out the part for its use. Maintenance of equipment of this nature requires a high degree of knowledge skill and training. FMF has the ability to carry out all Meter Testing/Calibration for most ship and submarine systems. Extensive experience/knowledge of these systems is garnered through both formal training and "hands-on" experience.

SONAR ELECTRONICS AND FIRE CONTROL ELECTRONICS: (reference from FMF CS script p.31 – no direct notes)

Q: Do you use blue barge for testing?

A: Yes, transducers – we lower in water to allow for reading ship's frequencies, active testing and listening to known noise sources in the harbour.

Q: Is there a lot of submarine work done on the West Coast to Seaspan?

A: Not really, a lot of work can be done here in FMF Cape Scott. It goes back in Supply system, the overhaul is done here in Cape Scott. Certain work is done at the other coast in FMF Cape Breton.

GOVERNOR SHOP: (reference from FMF CS script p. 10)

Governor and Injector – Repair & Test

Q: Generator set - who will change it?

A: Where there is a program, it can be done through dock work by the Contractor or work can be done by FMF.

Internal Combustion Engine (ICE): (reference from FMF CS script p. 11)

The shop performs Preventative and Corrective Maintenance on all types and sizes of internal combustion engines.

Capabilities: As well as onboard repair, the shop is capable of full Engine overhaul for: Diesel engines on all ship Classes and VICTORIA Class. It also provides support to various other units in repairing outboard motors, fire pumps, diesel driven generators, and small vessel engines.

Special skills and Expertise: Diesel Engine Set to Work and Trials including Main Power Trials at Sea.

ABOVE WATER WEAPONS GUNS AND MISSILE SHOP: (reference from FMF CS script p.17)

Purpose: Carry out all Planned and Corrective Maintenance on Gun and Missile Systems.

Capabilities: Maintaining the following Above Water Weapon systems for HMC Ships:

- Guns – 57mm, 76mm, and 20mm CIWS (Close In Weapons Systems); and
- Missile Systems – GMVLS (guided Missile Vertical Launch System), Harpoon, ESSM (Evolved Sea Sparrow Missile) and Multi Acquisition Softkill System.
- LMDE (Limpet Mine Disposal Equipment) and various caliber artillery weapons.

Special Skills and Expertise: The FMFCS Above Water Weapons team (electronic, electrical, mechanical) consists of a team of highly skilled technicians who are formally trained in the repair and overhaul of complex weapons systems.

Q: Does this shop take care of MCDVs?

A: Yes, and other satellite shops and they are separated by responsibilities.

MACHINE SHOP: (reference from FMF CS script p.16)

CNC Milling and turning centers

Q: What about the training?

A: Specific training is required on the use and on safety for each piece of machinery.

Special Skills and Expertise:

- Gear Manufacturing, the Cape Scott Machine shop has a selection of gear generating equipment for straight, helical and bevel gears.
- Engraving, the Engraving section of the Machine shop has a wide range of engraving equipment, which can work in a variety of media and contours.
- Dimensional Inspection services: FMFS machine shop provides extensive modern dimensional inspection services; including stationary precision Coordinated Measuring and on-site machinery dimensional inspections.

MATERIAL EXPEDITING SECTION: (reference from FMF CS script p.21)

Purpose:

- The purpose of this section is monitor material movement and inbound logistics of Departmental Supply Chain as well as locally procured material required to support FMFCS maintenance projects.

- Direct liaison between FMFCS project managers, planners and schedulers with inbound material from the procurement pipeline and/or the departmental Supply Chain.
- Work from order initiation to final delivery and/or consumption of material with dedicated resources utilizing DRMIS and customer service to maximize schedule flexibility

Q: Are the spares solely for FMF?

A: Only for locally and centrally procured items.

WAREHOUSE OPERATIONS SECTION: (reference from FMF CS script p.19)

Purpose of this section to receive and process all incoming material to FMFCS which includes locally procured materials, consumables, tools, equipment and Royal Canadian Navy spares and other material from the Departmental Supply Chain. All material movement and processing tracked and controlled using departmental enterprise system known as DRMIS.

- Material is held for use by shops for the work in progress with minimal longterm storage
- Reverse logistics exit point for material returns, repair and overhaul and disposal of assets and material back into the Departmental Supply Chain
- Full inventory control, stocktaking, asset visibility and material accountability
- Technical inspection and Quality assurance of received material
- Hazardous materials handling, storage and shipping
- Warehouse facility and staff have 10+ years' experience as users of Inventory Management module of SAP (known as DRMIS)
- Entry point and direct liaison with departmental LCMM's (Life Cycle Material Managers) as well as external supply chains, standalone vendors of material and logistics suppliers
- Metal stores sub section with extensive metal products ready for sue including plate and pipe with variety of grades as well as customized storage and distribution within FMFCS facilities

Q: Do you draw from the store system and return to them?

A: Yes. Material is held for use by shops for the work in progress with minimal long term storage. The reverse logistics exit point for material returns, repair and overhaul and disposal of assets and material back into the Departmental Supply Chain. We have full inventory control, stocktaking, asset visibility and material accountability

Thick and Thin Model: (Capt(N) Earl) – 2 FMFs – CO:

The two units operate independently but work together and support each other. We set up work centres and capacity between the two coasts. Decisions are made on which coast will host the expertise. Ex. Work on a requirement is being done and require more

capacity, the other coast will send 2/3 people to help work on the requirement. This is how business is done today.

In essence, as part of our NEM HR strategy, we are looking at capability areas that could have capacity resident within one Formation (thick) whilst the other Formation would only have a small number of SME (thin). In essence, this enables the NEM to retain key capabilities while staying with the imposed HR funding envelopes, acknowledging that response time in the “thin” formation will most likely be slower due to the requirement to fly the SME from the “thick” Formation.