

# THE ADMIRAL'S VIEW

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**T**he Government of Canada is proceeding with its historic renewal of the Royal Canadian Navy's surface fleet of ships. This necessary fleet renewal includes both the modernization of the Halifax-class ships and the provision of new ships that will be built under the recently announced National Shipbuilding Procurement Strategy (NSPS). These programs will create hundreds of valuable skilled jobs in shipbuilding and related sectors within Atlantic Canada. Although the laying of the keel for the first ship under the NSPS is still in the future, the Halifax-class Modernization/Frigate Equipment Life Extension (HCM/FELEX) project is well underway and will deliver 12 modernized state of the art warships. The aim of HCM/FELEX is a complete overhaul of the Halifax-class ships' operational capability. This midlife refit is scheduled to be completed by mid-2017 with full operational capability expected in early 2018.

The Operations Room is the nerve centre of the ship. This is the place where information from the ships' sensors like radar and sonar is synthesized with additional data received via computer networks from other ships, aircraft and shore establishments. The systems in the Operations Room provide the ship's Commander with an operational picture and the ability to control the ship's weapons systems. This is referred to as a Command and Control System. Its efficiency is critical to a Commander's ability to make informed and effective decisions to employ the ship's capabilities. Directing the ship's communication, sensor and weapon systems is referred to as "fighting the ship". In the modern world, which is politically complex and where even non-state actors like criminals and terrorists have access to the latest technology, it is essential that our ships have highly capable Operations Rooms.

The HCM/FELEX project represents an extraordinary technological leap for the Halifax-class and the scale of the capability increase is equivalent to upgrading from a Commodore 64 to a Pentium-plus computer. This refit will revolutionize the way Canadian sailors manage information and "fight their ship". The integration of the ships' various systems into the new command and control suite will negate the requirement for repetitive data entry and the inherent human errors associated with this cumbersome process. The results



will be an instantaneous and accurate maritime picture. This capability increase for the Halifax-class is further complemented by the new Cyclone maritime helicopter. In addition to the advances in the airframe and flight capability of the Cyclone as compared to the current maritime helicopter the Sea King, the Cyclone represents a revolutionary increase in the sensor suite and weapons systems capability. These systems, which will be fully networked with the post-refit Halifax-class Frigates, will provide a 25% increase in the operational capacity for the ships.

By far the greatest cost of building a modern warship is associated with the weapons and sensors of the ship and their integrations into a unified command and control system. The HCM/FELEX program, which will modernize seven of the 12 Halifax-class Frigates in Halifax, represents an extraordinary opportunity for Nova Scotia. There are many examples of Canadian innovation that resulted in world class technological advance. Nova Scotians look with pride at the Bluenose II whose namesake was the finest Grand Banks Schooner of her day and was designed and built here. The CF-105 Avro Arrow aircraft, the CH-113A Labrador helicopter and the Beartrap, the haul down device used to lower helicopters onto the decks of our warships, are all examples of how creative Canadian thought resulted in world class innovations in technology. The completion of the HCM/FELEX program demands innovative thought and a highly sophisticated industrial capability. Collecting the critical mass of expertise in Atlantic Canada that is necessary for completion of this modernization project represents an extraordinary opportunity for this region and will place Nova Scotia in a position to seize future economic prosperity through the NSPS and beyond. The Navy's fleet renewal will provide an opportunity for Nova Scotians to surge forward internationally as leaders in technology and ship building, a further chapter in the legacy of the Bluenose.