

Canadian Coast Guard

Atlantic Region

CCGS CYGNUS

Procurement

Statement of Requirements

Requisition Number: F6855-170338

Searchlight Mandatory Requirements

- 1.1 Contractor must supply (2) new Marine Searchlights. The searchlights must be two (2) with dual headed including one ultraviolet /UV and one sharp white light with integrated Thermal Imaging Camera, and one (1) with dual headed sharp whitelight with integrated Thermal Imaging Camera.
- 1.2 Searchlight(s) must have capability to continuously rotate 360 degrees both head simultaneously in the vertical and horizontal planes allowing unlimited movement endlessly.
- 1.3 Searchlight lamps must be Hydrargyrum Medium-Arc Iodide (HMI) lamps. Light effect must be 575 watts each lamp head minimum. Lamps must be compatible for both heads with only the lenses/shades being changed to offer UV. Range of light must be a minimum of 5000m with 2 whitelights and a minimum of 3000m for one white light at a minimum, with focusable white and UV light.
- 1.4 Two(2) searchlights must be provided with panels and remote controls with built in OLCD display to allow for operation of each light from 3 different bridge consoles. One (1) searchlight must be provided with a panel with build in OLCD display to allow for operation of that light from one bridge console.
- 1.5 Searchlights must be operated from Canbus to allow direct connection to computer.
- 1.6 Menu options must cover all settings of searchlights. Focusing must be controlled by separate button controls.
- 1.7 Operation of searchlights must be stepless speed control in all directions. Searchlight must follow same directions as joystick.
- 1.8 Controls must have programmable operation of remote functions such as auto-sweep, surveillance mode and pre-set fixed positions.
- 1.9 Automatic sweeping program must be adjustable by either joystick or menu.
- 1.10 Control console must have glare free surfaces, and the intensity of display must be adjustable.
- 1.11 Position indicators both graphics and digital. Indicator must be the exact horizontal/vertical position of the searchlight using moving symbols and in plain text and degrees.
- 1.12 Controls must include the ability to automatically Park the searchlight.
- 1.13 Controls must include a menu driven list of multiple fixed positions for the searchlight.
- 1.14 System must be provided with wireless remote control capability for each unit, with one remote able to operate the two (2) forward searchlights from a distance of 300m.
- 1.15 Input power supply voltage for system is 240VAC, single phase, 60Hz, 15 amp for each light.

- 1.16 Searchlight must contain dampers to decrease vibration/shock transmitted from base.
- 1.17 All searchlight components that cause movement of the heads must be located inside the enclosure so as to be unaffected by outside elements such as ice build-up.
- 1.18 Contractor must supply searchlights rated at a minimum of IP66-International rating system for water fastness and ingress protection.
- 1.19 Searchlights must be rated for temperatures of -40 degrees Celsius or lower.
- 1.20 Searchlight housings must be constructed from heavy gauge acid proof stainless steel construction.
- 1.21 Searchlight must be provided with 25 meters of power and control cable.
- 1.22 Searchlight must be provided with 25 meters remote control cable.
- 1.23 Searchlight must be equipped with Ethernet switch.
- 1.24 Thermal imaging camera must have man detection up to 800m and vessel detection up to 2000m.
- 1.25 Thermal imaging camera must have integrated temperature –controlled and self regulating heating element.
- 1.26 Thermal imaging camera must have minimum video resolution of 640x480 pixels.
- 1.27 Thermal imaging camera must include the below color palettes:
 - 1.27.1 White Hot
 - 1.27.2 Black Hot
 - 1.27.3 Fusion
 - 1.27.4 Rainbow
 - 1.27.5 Glowbow
 - 1.27.6 Ironbow1
 - 1.27.7 Ironbow2
 - 1.27.8 Sepia
 - 1.27.9 Color 1
 - 1.27.10 Color 2

1.27.11 Ice Fire

1.27.12 Rain

- 1.28 Thermal Imaging camera must allow for unlimited horizontal movement together with the searchlight and at least +/- 20 degrees vertical movement independent of searchlight.
- 1.29 Thermal Imaging camera must have an operating temperature range of -40C to +40C.
- 1.30 Thermal Imaging camera must have video output to analog video input on monitor.
- 1.31 Manufacturer must have authorized distributor in Canada.
- 1.32 Contractor must supply one spare lamp per searchlight with delivery of searchlight(s).
- 1.33 Three (3) paper copies and one (1) electronic copy of manufacturer drawings, manuals and repair manuals must be provided. One (1) paper copy must be provided in French for the above.
- 1.34 Contractor must provide a list of essential spares recommended to be carried along with prices.
- 1.35 Contractor must supply 24 month warranty.
- 1.36 Contractor must quote on ten (10) unit costs for each type of searchlight listed below as an option for future purchases within 24 months of contract award based on 1.1 through 1.35
- 1.37 Unit cost must be provided for searchlights with:
 - 1.3.1 2 sharp white light heads
 - 1.3.2 1 sharp white light and 1 UV lamp combined
 - 1.3.3 2 sharp white light heads with Thermal Imaging Camera
 - 1.3.4 1 sharp white light and 1 UV lamp combined with Thermal Imaging Camera