CSC [Type 26 City] - 2030 Canadian Surface Combatant

Canada

Type: FFG - Guided Missile Frigate

Max Speed: 27 kt

Commissioned: 2030

Length: 151.4 m Beam: 20.75 m

Draft: 7.5 m Crew: 208

Displacement: 8080 t Displacement Full: 0 t

Propulsion: 1x MTU 20V 400 M53B Diesels,

4x MT30 Gas Turbines, CODLOG

Sensors / EW:

- BridgeMaster E [X-Band] Radar, Radar, Surface Search & Navigation, Max range: 177.8 km
- BridgeMaster E [S-Band] Radar, Radar, Surface Search & Navigation, Max range: 177.8 km
- AN/SPY-7(V)1 (USA) Radar, Radar, FCR, Surface-to-Air, Long-Range, Max range: 463 km
- MX-10D [Daylight TV] (Weapon Director) Visual, Visual, Weapon Director & Target Search, Tracking and Identification TV Camera, Max range: 55.6 km
- MX-10D [Laser Rangefinder] (Weapon Director) Laser Rangefinder, Laser Rangefinder, Max range: 0 km
- MX-10D [CCD] (Weapon Director) Visual, LLTV, Surveillance Camera, Max range: 55.6 km
- MX-10D [Laser Designator] (Weapon Director) Laser Designator, Laser Target Designator & Ranger (LTD/R), Max range: 27.8 km
- MX-10D [IR] (Weapon Director) Infrared, Infrared, Weapon Director & Target Search, Tracking and Identification Camera, Max range: 55.6 km
- Type 2150 (Type 23/26) Hull Sonar, Active/Passive, Hull Sonar, Active/Passive Search & Track, Max range: 29.6 km
- MMVDS VDS (LFAPS-D(?)) VDS, Active/Passive Sonar, VDS, Active/Passive Variable Depth Sonar, Max range: 44.4 km
- UAF-1 Cutlass (UAC) ESM, ELINT w/ OTH Targeting, Max range: 926 km
- Generic LWR (UAC) ESM, LWR, Laser Warning Receiver, Max range: 11.1 km
- Generic OECM [Advanced] (2020s) ECM, OECM, Offensive ECM, Max range: 0 km
- Generic DECM [Advanced] (2020s) ECM, DECM, Defensive ECM, Max range: 0 km

Weapons / Loadouts:

- 127mm/64 Vulcano GLR IMU/GPS [Guided Long Range] (2015?) Gun. Surface Max: 22.2 km. Land Max: 96.3 km.
- 127mm/64 Vulcano BER [Ballistic Extended Range] (2014?) Guided Projectile. Air Max: 2.8 km. Surface Max: 22.2 km. Land Max: 59.3 km.

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- 30mm/75 DS30M Mk2 APDS Burst [20 rnds] Gun. Air Max: 1.9 km. Surface Max: 2.8 km. Land Max: 2.8 km.
- 30mm/75 DS30M Mk3 HE Burst [20 rnds] Gun. Air Max: 1.9 km. Surface Max: 2.8 km. Land Max: 2.8 km.
- 12.7mm/50 MG Burst [10 rnds] (Facility/Ship, No Anti-Air Capability) Gun. Surface Max: 1.9 km. Land Max: 1.9 km.
- Mk54 LHT Mod 0 (2004) Torpedo. Subsurface Max: 7.4 km.
- RGM-109E Tomahawk Blk IV TACTOM (2005) Guided Weapon. Land Max: 1600.1 km.
- RIM-66M-6 SM-2MR Blk IIIC (2022, ARH Seeker, AEGIS VLS) Guided Weapon. Air Max: 166.7 km. Surface Max: 166.7 km.
- RIM-162E ESSM Blk II (2021, AEGIS, Mk41) Guided Weapon. Air Max: 55.6 km. Surface Max: 46.3 km.
- CAMM (2017, Sea Ceptor) Guided Weapon. Air Max: 27.8 km.
- RGM-184A NSM Block 1 (2013, Naval Strike Missile) Guided Weapon. Surface Max: 200 km. Land Max: 200 km.
- DLF(3) Advanced Inflatable Decoy Decoy (Expendable). Surface Max: 1.9 km.
- Mk216 Sea Gnat Chaff [Distraction] (1988) Decoy (Expendable). Surface Max: 1.9 km.
- Mk245A2 TALOS Flare (2000) Decoy (Expendable). Surface Max: 1.9 km.
- Mk214 Sea Gnat Chaff [Seduction] (1987) Decoy (Expendable). Surface Max: 1.9 km.
- Mk251 Siren Active Decoy Round (2004) Decoy (Expendable). Surface Max: 1.9 km.
- S2170 Sea Sentor [Towed Torpedo Decoy] (2006, Sonar 2170, SSTD) Decoy (Towed). Surface Max: 1.9 km.
- S2170 Sea Sentor [Expendable Decoy] (2006, Sonar 2170, SSTD) Decoy (Expendable). Surface Max: 1.9 km.

OVERVIEW: The Type 26 City Class aka "Canadian Surface Combatant (CSC)" ship is a CODLOG-powered multi-role ship

DETAILS: The CSC is based on the British Type 26 City-class, and will replace both the retired Iroquois-class destroyers and the Halifax-class frigates. It is intended to perform a wide range of missions, include combat at sea, as well as counter-piracy/terrorism, interdiction/embargo operations in medium intensity conflict and search and rescue, law and sovereignty enforcement.

The weapons suite for the CSC will include 127mm main gun, two stabilized rapid fire 30mm naval gun systems, LMC MK 41 missile vertical launch system, 32-cell MK54 lightweight torpedoes, twin launch tubes, and MBDA Sea Ceptor close-in air defence system. The warships can be armed with a wide range of missiles including Raytheon Standard Missile 2, Raytheon Evolved Sea Sparrow point defence missile, Tomahawk land attack missiles and Kongsberg Naval Strike Missile. An integrated underwater warfare system will include Ultra Electronics' S2150 hull-mounted sonar, towed low frequency active & passive sonar, and SEA SENTOR S21700 towed torpedo countermeasures. General Dynamics' sonobuoy processing system and expendable acoustic countermeasures will also be installed aboard the vessels.

The warship can carry a CH-148 Cyclone helicopter and provide facilities for embarking remotely piloted systems. It will also feature reconfigurable mission and boat bays including a 9m rescue boat, two 9-12m multi-role boats, Rolls Royce' mission bay handling system, and modular mission support capacity.

The LMC SPY-7 active electronically scanned array (AESA) radar will provide continuous surveillance against modern threats. The ship will also be fitted with MDA's solid state AESA target illuminator, X- and S-band navigation radars, electro-optical and infrared systems, laser warning and countermeasures system, radio frequency and electronic jammers, and electronic decoy system.

Specifications:

Displacement: 7,800t

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Length: 151.4m Beam: 20.75m Draught: 8m

Propulsion: CODLOG: 1 × Rolls-Royce MT30 gas turbine; 4 × Rolls-Royce MTU Type 20V 4000 M53B high-speed

diesel generators; $2 \times$ General Electric electric motors

Complement: 204 Speed: 27 kn Range: 7,000nm

NOTES: Est. early 2030's commission date. Proposed 15-ship building program.

SOURCES: "Canadian Surface Combatant (CSC) – Canadian Naval Review." Canadian Naval Review – 'Insightful and Engaging'. Accessed April 30, 2022. https://www.navalreview.ca/category/broadsides/canadian-surface-combatant-csc/.; "Canadian Surface Combatant | The Fleet | Royal Canadian Navy." Royal Canadian Navy. Last modified February 23, 2022. https://www.navy-marine.forces.gc.ca/en/fleet-units/csc-home.page.; "Canadian Surface Combatant." Naval Technology. Last modified March 11, 2022. https://www.naval-technology.com/projects/canadian-surface-combatant/.; "Canadian Surface Combatant." Wikipedia, the Free Encyclopedia. Last modified May 22, 2006. https://en.wikipedia.org/wiki/Canadian_Surface_Combatant.; National Defence. "Canadian Surface Combatant." Canada.ca. Last modified August 4, 2021.

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