



MV *ASTERIX*

Because navy ships operate out of sight, we forget that they need supplies just like we do at home – fuel in particular. Not surprisingly, oceans have very few gas stations. So, how do ships top up their tanks? There are generally two options available to ensure that you have enough fuel before crossing vast ocean expanses: have extremely big fuel tanks; or take along your own gas station (a third option is that you could have nuclear propulsion, but that’s a different story). Naval forces often have agreements with allied states that allow them to visit ports and buy fuel, but often there is no convenient ally in the neighbourhood. And in sparsely populated regions like the Arctic (and Antarctic), fuel supplies can be a major concern. As a big country, with a small population, Canada’s navy has fuel needs that are different from the navies of other smaller states located in well-populated regions (Europe, for example).

This is where supply ships come in. Most of the medium to large navies have ships that provide fuel – and other materials like spare parts, water and food – to other ships while they are away from home port. They are referred to as Auxiliary Oil Replenishment (AORs) ships, and they conduct what are called replenishments-at-sea. This is a delicate exercise whereby the AOR and the ship needing fuel position themselves close to each other in parallel (keep in mind that this is happening on an ocean where there are waves and wind, and while the ships are underway!). Once they are in parallel, a long hose is sent from the oiler to the other ship, which then hooks it up and fills up the tanks.

Until recently Canada had two AORs – HMCS *Preserver* and HMCS *Protecteur* – which were built in the late 1960s. Both ships have now been retired – *Protecteur* experienced a fire in February 2014, and *Preserver* had so much corrosive rust that it was confined to harbour and paid off in 2016. This meant that Canada had a gap in its capability – it could no longer provide fuel to Canadian navy ships. That’s a problem for any navy. This shortfall was overcome by arrangements with allied navies to fuel from their tankers, plus leasing an AOR capability from Chile to service the West Coast fleet, and from Spain to service the East Coast fleet. But it was clear that something needed to be done so that Canada would not have to rely on others for naval operations.

There have been plans in the works to build new supply ships since 1999 when it was called the Afloat Logistics Support Capability (ALSC). The plan for this was shelved as National Defence Headquarters thought that the ALSC was too robust for the CAF, and the Department of National Defence would not support it. Since 2005 there has been a name change – to Joint Support Ships – and a capability reduction, but the plan for new supply ships has kept moving forward. The project has faced a number of delays, and the ships have not yet been built. However, they are included in the National Shipbuilding Strategy (see Briefing Note #6 for details of the NSS) to be built at Vancouver Shipyards/Seaspan, and two ships are scheduled to be complete in the 2020s.¹

In January 2015 the RCN held a briefing indicating that it was seeking to lease ‘At Sea Support Services’ while it waited for the Joint Support Ships to be built. A number of companies submitted proposals. The proposal by Federal Fleet Services, which suggested converting a commercial container ship into an AOR as an interim solution, was the one selected. Instead of building a new ship, the idea was to convert an existing ship at Chantier Davie Shipbuilding in Quebec, and instead of it being a naval ship, it would be leased by the government for five years while the new JSS were being built. The cost to the federal government is estimated at \$65-75 million per year.² The federal government has the option to purchase the ship for \$650-\$700 million at the end of the lease. MV *Asterix*, a container ship constructed in 2008, was selected to convert to the *interim* supply ship, and it arrived at the shipyard in 2015. The ship was reportedly purchased for \$20 million.³

On 20 July 2017 Davie Shipbuilding unveiled *Asterix* in a public ceremony with the traditional breaking of a bottle of champagne.⁴ Sea trials were held in November, and the ship arrived at Halifax, Nova Scotia, on 27 December 2017. It completed more sea trials and was formally accepted into service with the Royal Canadian Navy in early March 2018. As Davie Shipyard happily points out, it was built on time and within budget – and is the first new supply ship to be received by the navy in almost 50 years!

The ship is operated by Federal Fleet Services and has a crew which is a mix of civilian and military personnel, just over 100 people in total.⁵ The RCN personnel who serve on *Asterix* are referred to as Naval Replenishment Units (NRU) *Asterix*. The Federal Fleet Services personnel operate and maintain the ship, provide food and cleaning. The RCN personnel take care of replenishments-at-sea, security, helicopter operations and decide on what operations will be undertaken. It is a cooperative system that apparently has worked very well.

It is a big ship – the biggest in the RCN – at 182.5 metres long and displacing 26,000 tonnes.⁶ It can handle both liquid (diesel, aviation fuel, water) and solid cargoes (food, spare parts, equipment for missions, including ammunition and vehicles). It can hold up to 28 shipping containers that could be used in the response to a natural disaster or for humanitarian assistance. It has a helicopter flight deck and it is certified to accommodate Sea King, Cyclone and Griffon helicopters. As well it has a small but well-equipped hospital, complete with the personnel for a surgical suite, X-ray and dental facilities. This is not to serve only its own crew but also the ships which *Asterix* is accompanying. And, finally, the ship can accommodate up to 300 passengers if necessary. It has, therefore, significant capability to respond to natural disaster/humanitarian relief incidents.

One thing that is important for the ability of *Asterix* to visit ports is that it has a double hull, which provides extra protection to the cargo in case of collision or grounding.⁷ This is a feature that the previous *Protecteur*-class did not have and prevented them from refueling in some ports and/or operating in the national waters of some states.⁸ As well, *Asterix* is a green ship in the sense that it has modern environmental standards for managing waste water.

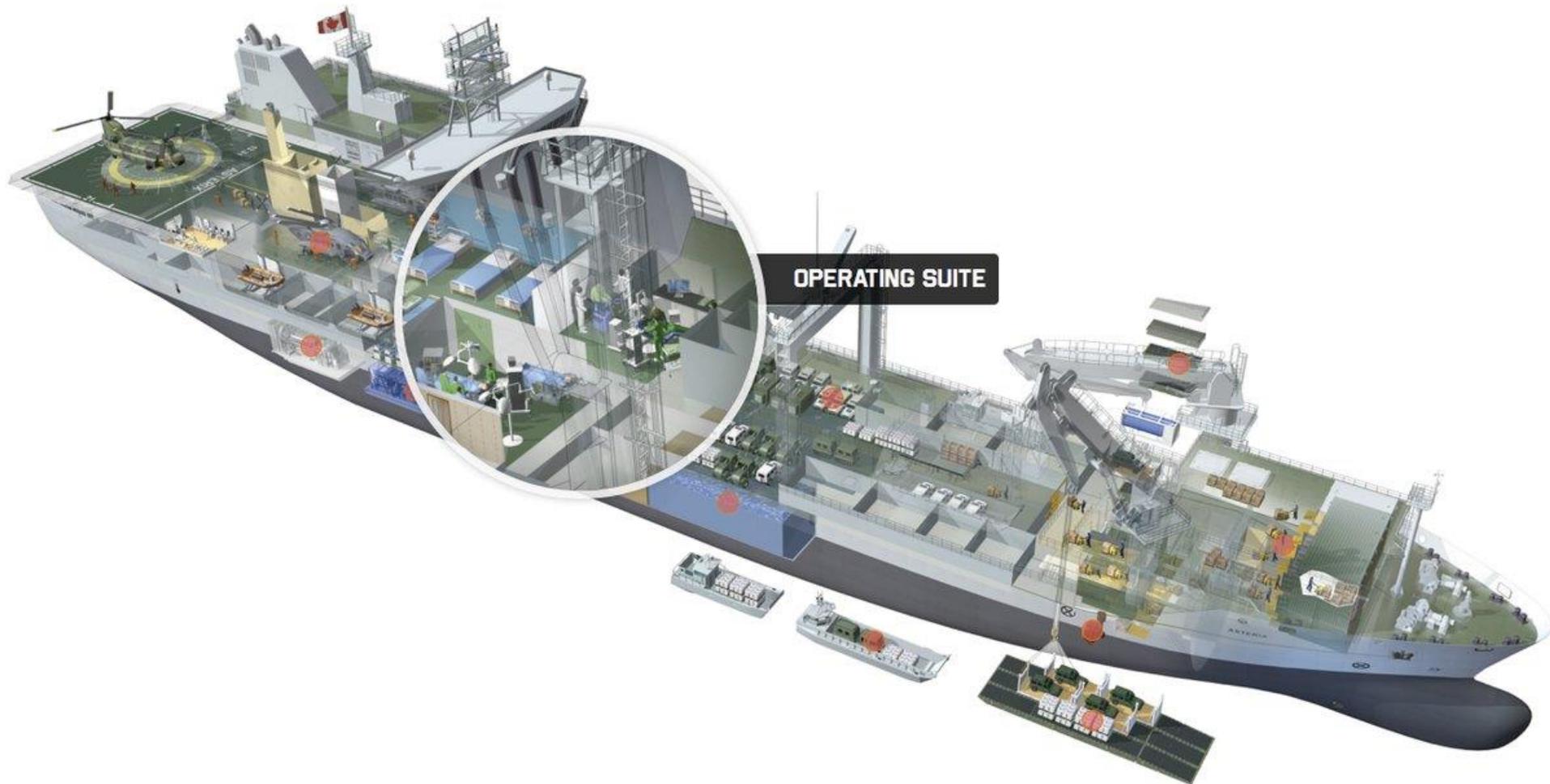
Due to the civilian nature of its design, *Asterix* is limited in its ability to participate in combat, and even survive damage sustained in combat. The ship also lacks any installed self-defence

weapon systems, although there are provisions should the need arise. These factors prevent the ship from being deployed to hazardous combat areas.⁹

MV *Asterix* had a busy first year. It was deployed virtually all of 2018. According to Federal Fleet Services, the ship maintained 100% utilization, travelling 51,062 nautical miles (to Hawaii, Australia, the South China Sea, Vietnam, Guam, among other places), performing 138 supply operations with nine allied navies, and delivering 20 million litres of fuel at sea.¹⁰ Not bad for a first year. In early February 2019 it left Esquimalt, BC, with HMCS *Regina* to work in the Pacific and in the Middle East, and it carried on from there throughout 2019 for a busy second year as well. After some maintenance, the navy has big plans for it in 2020.

Notes

1. See David Pugliese, “Construction of Canadian navy’s supply ships delayed until 2019, Liberal report reveals,” *National Post*, 15 January 2018, <https://nationalpost.com/news/politics/construction-of-canadian-navys-supply-ships-delayed-until-2019-liberal-report-reveals>.
2. Murray Brewster, “Future Government on the Hook for Navy Supply Ship,” CTV News, 18 August 2015. Tim Page, president of Seaspan, “Opinion: Shipbuilding, not ship-leasing, is the right choice for Canada,” *Montreal Gazette*, 29 January 2018, available at <https://montrealgazette.com/opinion/columnists/opinion-shipbuilding-not-ship-leasing-is-the-right-choice-for-canada>.
3. “Davie set to start box ship to fleet oiler conversion,” *Marine Log*, 14 October 2015, available at https://www.marinelog.com/index.php?option=com_k2&view=item&id=9899:davie-set-to-start-box-ship-to-fleet-oiler-conversion&Itemid=223.
4. See Davie Shipyard, Press Release, “Davie Shipbuilding unveils the largest naval ship ever delivered from a Canadian shipyard,” 20 July 2017, available at <https://www.newswire.ca/news-releases/davie-shipbuilding-unveils-the-largest-naval-ship-ever-delivered-from-a-canadian-shipyard-635682443.html>.
5. See David Pugliese, “Here are the details on how Asterix will be crewed by the Royal Canadian Navy,” *Ottawa Citizen*, 24 October 2017, available at <https://ottawacitizen.com/news/national/defence-watch/here-are-the-details-on-how-asterix-will-be-crewed>.
6. Resolve Class Auxiliary Oiler Replenishment (AOR) Vessel, *Naval Technology.com*, available at <https://www.naval-technology.com/projects/resolve-class-auxiliary-oiler-replenishment-aor-vessel/>; Joetey Attariwala, “MV Asterix: Bringing a New Supply Ship Capability Back to Canada’s Navy,” *Canadian Defence Review*, Vol. 24, Issue 4 (July 2018), p. 47.
7. This was not done out of environmental altruism. The International Maritime Organization adopted the regulation that all tankers built after 6 July 1996 must be double hulled. Because it was built after 1996, the ship was double hulled when Davie received it.
8. Bill Curry, “Canadian Navy’s ships risk being banned from foreign ports,” *The Globe and Mail*, 5 August 2010, available at <https://www.theglobeandmail.com/news/politics/canadian-navys-ships-risk-being-banned-from-foreign-ports/article1212835/>.
9. Lee Berthiaume, “Canadian naval supply ship can’t go into war zones,” *Times Colonist*, 20 February 2018, available at <https://www.timescolonist.com/business/canadian-naval-supply-ship-can-t-go-into-war-zones-1.23180292>. Note that Davie disputes the claim that the ship can’t go to war/combat zones. See David Pugliese, “Defence bureaucrats rejected high-tech guns for new supply ship because they’re expensive,” *National Post*, 22 February 2018, available at <https://nationalpost.com/news/politics/defence-department-rejected-putting-guns-on-navy-supply-ship-because-of-cost>.
10. See Federal Fleet Services, Press Release, “Canada’s new Naval Support Ship returns to Canada after a flawless one-year international deployment,” 18 December 2018, available at <https://www.newswire.ca/news-releases/canadas-new-naval-support-ship-returns-to-canada-after-a-flawless-one-year-international-deployment-703048731.html>.



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