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Navy Next-Generation Logistics Ship (NGLS) Program: Background and Issues for Congress

Introduction

The Navy's Next-Generation Logistics Ship (NGLS) program envisages procuring a new class of medium-sized at-sea resupply ships for the Navy. The Navy's proposed FY2021 budget requests \$30.0 million in research and development (R&D) funding for the program. The issue for Congress is whether to approve, reject, or modify the Navy's proposed FY2021 funding request and emerging acquisition strategy for the NGLS program. Congress's decisions on this issue could affect Navy capabilities and funding requirements, and the U.S. shipbuilding industrial base.

Terminology

The Navy's *Combat Logistics Force (CLF)* ships, also called *underway replenishment (UNREP)* ships, are logistics ships that resupply the Navy's combatant ships (e.g., aircraft carriers, surface combatants, and amphibious ships) at sea, so that the combatant ships can continue operating without having to return to port. The Navy's current CLF ships include oilers (TAOs), dry cargo and ammunition ships (TAKEs), and fast combat support ships (TAOEs). In these designations, T means the ship is operated by the Military Sealift Command (MSC) with a mostly civilian crew, A means auxiliary ship, O means oiler, K means cargo, and E means ammunition (i.e., explosives). These CLF ships are large auxiliary ships.

Anti-access/area-denial (A2/AD) capabilities aim to create a defended area around a country that in time of conflict would be a "no-go zone" for opposing military forces. *Operational concepts* are general approaches for how to use military forces for achieving certain objectives. *Fleet architecture* refers to the types and mix of ships that make up a navy.

New Fleet Architecture and Operational Concepts

To more effectively counter the improving A2/AD capabilities of China in particular, the Navy wants to begin shifting to a new fleet architecture that is to be more distributed than the Navy's current fleet architecture. This is because it is to include a reduced proportion of larger ships and an increased proportion of smaller ships. This more distributed fleet architecture is intended to support a new Navy and Marine Corps operational concept for countering adversary A2/AD forces, called Distributed Maritime Operations (DMO), and an associated new Marine Corps operational concept called Expeditionary Advanced Base Operations (EABO).

DMO aims at avoiding a situation in which an adversary could defeat U.S. naval forces by concentrating its attacks

on a relatively small number of large, high-value U.S. Navy ships. Under EABO, relatively small Marine Corps units armed with anti-ship cruise missiles and other weapons would hop on and off islands in the Western Pacific to conduct "shoot-and-scoot" operations against adversary ships. For more on DMO, EABO, and the Navy's more distributed fleet architecture, see CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke, and CRS Report R46374, *Navy Light Amphibious Warship (LAW) Program: Background and Issues for Congress*, by Ronald O'Rourke.

Logistics Ships Currently Being Procured

The Navy is currently procuring new John Lewis (TAO-205) class oilers (**Figure 1**), which are large CLF ships. For more on the TAO-205 program, see CRS Report R43546, *Navy John Lewis (TAO-205) Class Oiler Shipbuilding Program: Background and Issues for Congress*, by Ronald O'Rourke.

Figure 1. John Lewis (TAO-205) Class Oiler

Artist's rendering



Source: General Dynamics/National Steel and Shipbuilding Company (GD/NASSCO) of San Diego, CA, the builder of TAO-205s.

Next-Generation Logistics Ship (NGLS) Program

Basic Concept for Ship

The NGLS program, also known as the Next-Generation Medium Logistics Ship program, is a new initiative in the Navy's FY2021 budget submission. The program envisages building a new class of CLF ships that would be medium-sized and thus smaller and individually less expensive to procure than the Navy's current CLF ships. NGLSs might be built in two variants to perform specific missions. Like the Navy's current CLF ships, NGLSs would be operated by MSC with mostly civilian crews. The Navy states that

[t]he NGLS will enable refueling, rearming, and resupply of Naval assets—afloat and ashore—in support of Distributed Maritime Operations, Littoral Operations Contested Environment, and Expeditionary Advanced Base Operations. The

NGLS is envisioned to be smaller than existing ships in the Combat Logistics Force, and will operate near contested environments, sustaining afloat (Surface Action Group) and ashore (Expeditionary Advanced Base) requirements. The Navy believes that there are several types of commercial vessels that may be able to perform these missions (including, but not limited to: Platform Supply Vessels, Fast Supply Vessels, or other types of Offshore Support Vessels). The Navy is considering conversion of existing vessels, new construction, or a combination of conversions and new construction in order to acquire the required number of Next Generation Logistics Ships.

(Source: Department of the Navy, Naval Sea Systems Command [NAVSEA], “Industry Day Announcement for the Next Generation Logistics Ship (NGLS),” Beta.sam.gov, May 15 [updated July 20], 2020.)

There are various types of Platform Supply Vessels, Fast Supply Vessels, and other Offshore Support Vessels, but in general, such ships can be considerably smaller (and therefore individually less expensive to procure) than the Navy’s current CLF ships.

Industry Day

The Navy held an industry day for the NGLS program on June 25, 2020, the purpose of which was to introduce the program to potential industry participants and give them a chance to ask initial questions about the program. Attendees included representatives from shipyards, ship-design firms, and component suppliers.

Potential Procurement Quantity and Cost

The Navy has not yet determined how many NGLSs it wants to procure. Press reports about the Navy’s new fleet architecture have suggested that the Navy might want to procure between 18 and 30. The procurement cost for an NGLS is to be substantially less than that of the larger TAO-205 design, which is about \$525 million.

Program Schedule

Under a schedule shown in the Navy’s industry day briefing, contracts for NGLS industry studies would be awarded in the third quarter of FY2021, the contract for designing and constructing or converting the first NGLS would be awarded in the second quarter of FY2023, and construction or conversion of additional NGLSs would follow in FY2024 and subsequent years.

FY2021 Funding Request

As mentioned earlier, the Navy’s proposed FY2021 budget requests \$30.0 million in R&D funding for the program. Most of this funding would be used for initial industry and Navy studies on the ship. The funding is requested in Project 4045, Next Generation Medium Logistics Ship, within Program Element (PE) 0603563N, Ship Concept Advanced Design, which is line 45 in the Navy’s FY2021 research and development account.

Legislative Activity for FY2021

FY2021 National Defense Authorization Act

The House Armed Services Committee, in its report (H.Rept. 116-442 of July 9, 2020) on the FY2021 National Defense Authorization Act (H.R. 6395), recommended approving the Navy’s FY2021 funding request for the NGLS program (page 392).

The Senate Armed Services Committee, in its report (S.Rept. 116-236 of June 24, 2020) on the FY2021 National Defense Authorization Act (S. 4049), stated that it “lacks sufficient clarity on the capability requirements to support” design efforts for certain new ships, including NGLS (pages 98-99), and recommended rejecting the Navy’s FY2021 request for the program (page 505).

FY2021 DOD Appropriations Act

The House Appropriations Committee, in its report (H.Rept. 116-453 of July 16, 2020) on the FY2021 DOD Appropriations Act (H.R. 7617), recommended reducing by \$10.0 million the Navy’s FY2021 funding request for the program (page 266). Section 8129 of H.R. 7617 as reported by the committee states that none of the funds provided in the act for initial acquisition activities for certain new Navy ships, including NGLS, “may be used to award a new contract for such activities unless these contracts include specifications that all hull, mechanical, and electrical components are manufactured in the United States.”

The Senate Appropriations Committee, in the explanatory statement that it released on November 10, 2020, for the FY2021 DOD Appropriations Act (S. XXXX), recommended approving the Navy’s FY2021 funding request for the program (page 186).

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