



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-452



T-AO 205 John Lewis Class Fleet Replenishment Oiler (T-AO 205 Class)

As of FY 2019 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

~~This document contains information that may be exempt from mandatory disclosure under the FOIA.~~

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Sensitivity Originator

Organization: Program Executive Office (PEO), Ships

Organization Email:

Organization Phone: 202-781-0690

Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

T-AO 205 John Lewis Class Fleet Replenishment Oiler (T-AO 205 Class)

DoD Component

Navy

Responsible Office

Mr. Michael P. Kosar
1333 Isaac Hull Avenue SE
Washington Navy Yard, DC 20376-1290

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DSN Phone:

DSN Fax:

Date Assigned: March 27, 2015

References

SAR Baseline (Production Estimate)

Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated September 15, 2017

Approved APB

Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated September 15, 2017

Mission and Description

The JOHN LEWIS (T-AO 205) Class Fleet Replenishment Oiler program will recapitalize the current T-AO 187 Class for a total of 17 ships. The United States requires military forces that can operate for long periods of time around the globe. The Navy can provide sustained military presence and operations far from the Continental United States (CONUS) with little or no reliance on host governments for basing and logistics in the immediate vicinity of operations. Such operations rely primarily on the ships of the Navy's Combat Logistics Force (CLF) for the resupply of fuel, food, ammunition, repair parts, and other consumables during underway (at-sea) replenishment events.

A critical supply item provided by the CLF, in both peace and war, is fuel to power the ships and aircraft of the Fleet. All of the Navy's CLF ships can provide fuel to Navy ships. However, the CLF's 15 T-AO 187 Class, because of their capacity and their numbers, are the backbone of the fuel delivery system. The existing CLF consists of 29 ships: two Fast Combat Support Ships (T-AOE 6 Class) built primarily to service aircraft carriers and their accompanying surface combatants; 12 Dry Cargo/Ammunition Ships (T-AKE 1 Class) built to replace the Navy's single product ammunition ships and dry cargo ships; and 15 T-AO 187 Class. Those T-AO 187s represent about half of the number of CLF ships, but account for 75 percent of the CLF's at-sea refueling capacity.

Executive Summary

Program Highlights Since Last Report

The Navy awarded a competitive, block buy contract for six ships to General Dynamics, National Steel and Shipbuilding Company (GD NASSCO) on June 30, 2016.

The Lead Ship, T-AO 205 was awarded on June 30, 2016 and Advance Procurement (AP) for the second ship, T-AO 206 awarded on June 5, 2017.

At Milestone B/C in September 2017, the Navy approved the Component Cost Position, which includes FY 2019 and FY 2020 Cost to Complete funding for Lead Ship and Follow-on Ship.

Since the September 2017 SAR, the Navy has awarded AP for the third ship, T-AO 207 on December 5, 2017.

PB 2019 accelerates to two ships per year in FY 2019, FY 2021 and FY 2023. This profile provides an improved and efficient build sequence between ships.

Detail design is on track to support the Lead Ship Start of Construction in September 2018 as planned.

There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation	
History of Significant Developments Since Program Initiation	
Date	Significant Development Description
May 2012	At the Navy Gate 2 Review, held May 2, 2012, the Navy approved development of a CDD and recommended a class of 17 ships based on a new design T-AO 205 Class with capabilities similar to the T-AO 187 Class.
October 2012	On October 10, 2012, the Navy Gate 3 Review approved the T-AO 205 Class threshold capabilities.
April 2013	An ADM was signed by USD (AT&L) on April 5, 2013, which approved T-AO 205 Program entry at Milestone B.
June 2015	The CDD was approved and validated by the Chief of Naval Operations and JROC on June 16, 2015.
June 2015	Per a USD(AT&L) Memorandum dated June 18, 2015, the Navy received approval to release the Request for Proposals and pursue a combined Milestone B/C.
September 2015	Per a USD(AT&L) Memorandum dated September 11, 2015, the MDA for the T-AO 205 program will be the Assistant Secretary of the Navy (Research, Development, and Acquisition) ASN (RD&A).
June 2016	The Navy awarded a competitive, block buy contract for six ships to General Dynamics, National Steel and Shipbuilding Company on June 30, 2016. The Lead Ship, T-AO 205 was awarded on June 30, 2016.
June 2017	FY 2017 Advance Procurement (AP) for the second ship, T-AO 206 awarded on June 5, 2017.
September 2017	The T-AO 205 Class combined Milestone B/C approval ADM was signed by ASN (RDA) on September 22, 2017.
December 2017	FY 2018 AP for the third ship, T-AO 207 was awarded on December 5, 2017.

Threshold Breaches

APB Breaches

Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Nunn-McCurdy Breaches

Current UCR Baseline

PAUC	None
APUC	None

Original UCR Baseline

PAUC	None
APUC	None

Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate
Detail Design and Construction (DD&C) Award	Jun 2016	Jun 2016	Dec 2016	Jun 2016
Milestone B	Sep 2017	Sep 2017	Mar 2018	Sep 2017
Milestone C	Sep 2017	Sep 2017	Mar 2018	Sep 2017
Delivery - Hull 16-01	Nov 2020	Nov 2020	May 2021	Nov 2020
IOT&E Complete - Hull 16-01	May 2021	May 2021	Nov 2021	Oct 2021
IOC - Hull 16-01	Jul 2021	Jul 2021	Jan 2022	Dec 2021
FOC	Jan 2036	Jan 2036	Jul 2036	Jan 2036

Change Explanations

None

Notes

The Current Estimate for the IOC and IOTE align with the June 16, 2015 approved CDD which states the IOC will be achieved 14 months after delivery and when the first ship completes Post Delivery Test & Trials (PDT&T), IOT&E, Final Contract Trials (FCT), and Post Shakedown Availability (PSA). The current PM estimate for these dates are consistent with previous T-Ship actual post-delivery trials durations and IOC.

The IOC objective date reflects the CDD objective date of 8 months after delivery.

The FY 2016 Lead Hull delivery date is November 2020.

Acronyms and Abbreviations

DD&C - Detail Design & Construction

IOT&E - Initial Operation Test & Evaluation

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Fueling at Sea				
Cargo Fuel Capacity: 156,000 barrels	Cargo Fuel Capacity: 156,000 barrels	(T=O) Cargo Fuel Capacity: 156,000 barrels	TBD	Cargo Fuel Capacity: 156,000 barrels
Force Protection				
Protect Personnel: Permanent crew-served weapon mounts and ready service lockers for use by on-watch EST Secure stowage for weapons and ammunitions when ship's force security teams and ESTs are not on watch PPE as routinely provided to MSC crews to include Force Protection and CBR PPE for a minimum of 125 personnel	Protect Personnel: Permanent crew-served weapon mounts and ready service lockers for use by on-watch EST Secure stowage for weapons and ammunitions when ship's force security teams and ESTs are not on watch PPE as routinely provided to MSC crews to include Force Protection and CBR PPE for a minimum of 125 personnel	(T=O) Protect Personnel: Permanent crew-served weapon mounts and ready service lockers for use by on-watch EST Secure stowage for weapons and ammunitions when ship's force security teams and ESTs are not on watch PPE as routinely provided to MSC crews to include Force Protection and CBR PPE for a minimum of 125 personnel	TBD	Protect Personnel: Permanent crew-served weapon mounts and ready service lockers for use by on-watch EST Secure stowage for weapons and ammunitions when ship's force security teams and ESTs are not on watch PPE as routinely provided to MSC crews to include Force Protection and CBR PPE for a minimum of 125 personnel.
Survivability				
Vulnerability: Built to commercial standards and meet OPNAVINST 9070.1. The ship will comply with ABS SVR Classification and USCG certification. Vessel will be double-hulled.	Vulnerability: Built to commercial standards and meet OPNAVINST 9070.1. The ship will comply with ABS SVR Classification and USCG certification. Vessel will be double-hulled.	(T=O) Vulnerability: Built to commercial standards and meet OPNAVINST 9070.1. The ship will comply with ABS SVR Classification and USCG certification. Vessel will be double-hulled.	TBD	Vulnerability: Built to commercial standards and meet OPNAVINST 9070.1. The ship will comply with ABS SVR Classification and USCG certification. Vessel will be double-hulled.
Sustainment				
Materiel Availability: 0.74 (Note: Equivalent to 270 Days RFT per year) Operational Availability: 0.95 (Note: Operational AOCF resulting in C4	Materiel Availability: 0.74 (Note: Equivalent to 270 Days RFT per year) Operational Availability: 0.95 (Note: Operational AOCF resulting in C4	(T=O) Materiel Availability: 0.74 (Note: Equivalent to 270 Days RFT per year) Operational Availability: 0.95 (Note: Operational AOCF resulting in C4	TBD	Materiel Availability: 0.74 (Note: Equivalent to 270 Days RFT per year) Operational Availability: 0.95 (Note: Operational AOCF resulting in C4

CASREPs	CASREPs	CASREPs		CASREPs
Net-Ready				
Perform Logistics and Combat Services: 0.999 Supply Operational Forces: 0.999 Synchronize Supply of Fuel in Joint Operations Area: 0.999 Transmit/Receive Bandwidth between ship and external network: Unclassified (NIPR), Classified (SIPR), and Coalition Network 3.36 Mbps Situational Information; Movement Procedures: Moderate (1-10 sec.) Distribution Data; Transport Data; Coordination Data; Delivery Information: Moderate (1-10 sec.)	Perform Logistics and Combat Services: 0.999 Supply Operational Forces: 0.999 Synchronize Supply of Fuel in Joint Operations Area: 0.999 Transmit/Receive Bandwidth between ship and external network: Unclassified (NIPR), Classified (SIPR), and Coalition Network 3.36 Mbps Situational Information; Movement Procedures: Moderate (1-10 sec.) Distribution Data; Transport Data; Coordination Data; Delivery Information: Moderate (1-10 sec.)	Perform Logistics and Combat Services: 0.99 Supply Operational Forces: 0.99 Synchronize Supply of Fuel in Joint Operations Area: 0.99 Transmit/Receive Bandwidth between ship and external network: Unclassified (NIPR), Classified (SIPR), and Coalition Network 0.889 Mbps Situational Information; Movement Procedures: Slow (10 sec. to 10 min.) Distribution Data; Transport Data; Coordination Data; Delivery Information: Up to 60 min. (10 min. to 60 min.)	TBD	Perform Logistics and Combat Services: 0.999 Supply Operational Forces: 0.999 Synchronize Supply of Fuel in Joint Operations Area: 0.999 Transmit/Receive Bandwidth between ship and external network: Unclassified (NIPR), Classified (SIPR), and Coalition Network 3.36 Mbps Situational Information; Movement Procedures: Moderate (1-10 sec.) Distribution Data; Transport Data; Coordination Data; Delivery Information: Moderate (1-10 sec.)
Energy				
Unrefueled range of 6,000 Nautical Miles at 20 knots while consuming no more than 14,000 barrels of fuel	Unrefueled range of 6,000 Nautical Miles at 20 knots while consuming no more than 14,000 barrels of fuel	(T=O) Unrefueled range of 6,000 Nautical Miles at 20 knots while consuming no more than 14,000 barrels of fuel	TBD	Unrefueled range of 6,000 Nautical Miles at 20 knots while consuming no more than 14,000 barrels of fuel.
Training				
Crew familiarization training on ship-specific systems and equipment to be provided by Contractor MSC will provide training based on CIVMAR) Competency Matrices. Training will occur at MSC-sponsored facilities and at other facilities to include Navy training sites, other Government agencies, maritime schools, and other commercial vendors.	Crew familiarization training on ship-specific systems and equipment to be provided by Contractor MSC will provide training based on CIVMAR) Competency Matrices. Training will occur at MSC-sponsored facilities and at other facilities to include Navy training sites, other Government agencies, maritime schools, and other commercial vendors.	(T=O) Crew familiarization training on ship-specific systems and equipment to be provided by Contractor MSC will provide training based on CIVMAR) Competency Matrices. Training will occur at MSC-sponsored facilities and at other facilities to include Navy training sites, other Government agencies, maritime schools, and other commercial vendors.	TBD	Crew familiarization training on ship-specific systems and equipment to be provided by Contractor MSC will provide training based on CIVMAR) Competency Matrices. Training will occur at MSC-sponsored facilities and at other facilities to include Navy training sites, other Government agencies, maritime schools, and other commercial vendors.

Space, Weight, Power, and Cooling (SWaP-C)

Specific SWaP-C margins for future (non-contiguous) installations of self-defense systems to include: -CIWS or SeaRAM -ATTDS -ADC Weight: 68,000 lbs. Space: 500 sq. ft. – above deck space 500 sq. ft. – below deck space Power: 100kW Cooling: 40kW	Specific SWaP-C margins for future (non-contiguous) installations of self-defense systems to include: -CIWS or SeaRAM -ATTDS -ADC Weight: 68,000 lbs. Space: 500 sq. ft. – above deck space 500 sq. ft. – below deck space Power: 100kW Cooling: 40kW	(T=O) Specific SWaP-C margins for future (non-contiguous) installations of self-defense systems to include: -CIWS or SeaRAM -ATTDS -ADC Weight: 68,000 lbs. Space: 500 sq. ft. – above deck space 500 sq. ft. – below deck space Power: 100kW Cooling: 40kW	TBD	Specific SWaP-C margins for future (non-contiguous) installations of self-defense systems to include: -CIWS or SeaRAM -ATTDS -ADC Weight: 68,000 lbs. Space: 500 sq. ft. – above deck space 500 sq. ft. – below deck space Power: 100kW Cooling: 40kW.
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Requirements Reference

JROC reviewed and validated the CDD for the Fleet Replenishment Oiler on June 16, 2015

Change Explanations

None

Acronyms and Abbreviations

ABS - American Bureau of Shipping
ADC - Acoustic Device, Countermeasure
Aocf - Operational Availability Based on Critical Failures
ATTDS - Anti-Torpedo Torpedo Defense System
C4 CASREPs - Category 4 Casualty Reports
CBR - Chemical, Biological, Radiological
CIVMAR - Civilian Mariner
CIWS - Close-In Weapon System
EST - Expeditionary Security Team
kW - kilowatts
lbs. - pounds
Mbps - Megabits per second
min. - minutes
MSC - Military Sealift Command
NIPR - Non-Secure Internet Protocol Router
OPNAVINST - Operational Navy Instruction
PPE - Personnel Protective Equipment
RFT - Ready For Tasking
SeaRAM - Rolling Airframe Missile
sec. - seconds
SIPR - Secret Internet Protocol Router
sq. ft. - square feet
SVR - Steel Vessel Rules
SWaP-C - Space, Weight, Power and Cooling
T=O - Threshold equals Objective
USCG - United States Coast Guard

Track to Budget

RDT&E

Appn	BA	PE
Navy	1319 04	0408042N
	Project	Name
	0900	Future Combat Logistics Force Development (Sunk)
	Notes:	FY 2011 & FY 2012 National Defense Sealift Fund (NDSF) R&D Project 3417.
Navy	1319 04	0603564N
	Project	Name
	3375	Ship Prel Design & Feasibility Studies (Sunk)
	3375C	Ship Prel Design & Feasibility Studies (Sunk)
	Notes:	FY 2014 Congressional Transfer from NDSF R&D to RDT&E.
	C253	Ship Prel Design & Feasibility Studies (Sunk)
Navy	1319 05	0605327N
	Project	Name
	3375	T-AO 205 Class Development

Procurement

Appn	BA	PE	
Navy	1611	05	0204441N
	Line Item	Name	
	5025	T-AO Fleet Oiler	
	5110	Outfitting (Shared)	
	5300	Completion of Prior Year Shipbuilding Programs (Shared)	

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2016 \$M			BY 2016 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	67.6	67.6	74.4	67.7	67.3	67.3	67.3
Procurement	8475.9	8475.9	9323.5	8519.6	10664.3	10664.3	10233.1
Flyaway	--	--	--	8519.6	--	--	10233.1
Recurring	--	--	--	8409.8	--	--	10117.0
Non Recurring	--	--	--	109.8	--	--	116.1
Support	--	--	--	0.0	--	--	0.0
Other Support	--	--	--	0.0	--	--	0.0
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	8543.5	8543.5	N/A	8587.3	10731.6	10731.6	10300.4

Current APB Cost Estimate Reference

Component Cost Position (CCP) signed by Deputy Assistant Secretary of the Navy (Cost and Economics) dated August 18, 2017

Cost Notes

In accordance with Section 842 of the National Defense Authorization Act for FY 2017, which amended title 10 U.S.C. § 2334, the Director of Cost Assessment and Program Evaluation, and the Secretary of the military department concerned or the head of the Defense Agency concerned, must issue guidance requiring a discussion of risk, the potential impacts of risk on program costs, and approaches to mitigate risk in cost estimates for MDAPs and major subprograms. The information required by the guidance is to be reported in each SAR. This guidance is not yet available; therefore, the information on cost risk is not contained in this SAR.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	0	0	0
Procurement	17	17	17
Total	17	17	17

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2019 President's Budget / December 2017 SAR (TY\$ M)									
Appropriation	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
RDT&E	55.6	1.8	1.5	2.4	5.0	1.0	0.0	0.0	67.3
Procurement	747.3	541.1	1085.3	597.7	1105.3	564.3	1137.5	4454.6	10233.1
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2019 Total	802.9	542.9	1086.8	600.1	1110.3	565.3	1137.5	4454.6	10300.4
	--	--	--	--	--	--	--	--	--

Quantity Summary										
FY 2019 President's Budget / December 2017 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	1	1	2	1	2	1	2	7	17
PB 2019 Total	0	1	1	2	1	2	1	2	7	17
	--	--	--	--	--	--	--	--	--	--

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2011	--	--	--	--	--	--	4.5
2012	--	--	--	--	--	--	12.9
2013	--	--	--	--	--	--	25.0
2014	--	--	--	--	--	--	11.1
2015	--	--	--	--	--	--	--
2016	--	--	--	--	--	--	1.0
2017	--	--	--	--	--	--	1.1
2018	--	--	--	--	--	--	1.8
2019	--	--	--	--	--	--	1.5
2020	--	--	--	--	--	--	2.4
2021	--	--	--	--	--	--	5.0
2022	--	--	--	--	--	--	1.0
Subtotal	--	--	--	--	--	--	67.3

Annual Funding								
1319 RDT&E Research, Development, Test, and Evaluation, Navy								
Fiscal Year	Quantity	BY 2016 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2011	--	--	--	--	--	--	--	4.7
2012	--	--	--	--	--	--	--	13.4
2013	--	--	--	--	--	--	--	25.6
2014	--	--	--	--	--	--	--	11.2
2015	--	--	--	--	--	--	--	--
2016	--	--	--	--	--	--	--	1.0
2017	--	--	--	--	--	--	--	1.1
2018	--	--	--	--	--	--	--	1.7
2019	--	--	--	--	--	--	--	1.4
2020	--	--	--	--	--	--	--	2.2
2021	--	--	--	--	--	--	--	4.5
2022	--	--	--	--	--	--	--	0.9
Subtotal	--	--	--	--	--	--	--	67.7

Annual Funding 1611 Procurement Shipbuilding and Conversion, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2016	1	572.1	--	102.1	674.2	--	674.2
2017	--	73.1	--	--	73.1	--	73.1
2018	1	541.1	--	--	541.1	--	541.1
2019	2	1083.7	--	1.6	1085.3	--	1085.3
2020	1	585.3	--	12.4	597.7	--	597.7
2021	2	1105.3	--	--	1105.3	--	1105.3
2022	1	564.3	--	--	564.3	--	564.3
2023	2	1137.5	--	--	1137.5	--	1137.5
2024	1	576.4	--	--	576.4	--	576.4
2025	1	622.9	--	--	622.9	--	622.9
2026	1	612.9	--	--	612.9	--	612.9
2027	1	625.7	--	--	625.7	--	625.7
2028	1	640.0	--	--	640.0	--	640.0
2029	1	660.0	--	--	660.0	--	660.0
2030	1	669.6	--	--	669.6	--	669.6
2031	--	34.9	--	--	34.9	--	34.9
2032	--	12.2	--	--	12.2	--	12.2
Subtotal	17	10117.0	--	116.1	10233.1	--	10233.1

Annual Funding 1611 Procurement Shipbuilding and Conversion, Navy							
Fiscal Year	Quantity	BY 2016 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2016	1	545.3	--	97.3	642.6	--	642.6
2017	--	68.4	--	--	68.4	--	68.4
2018	1	497.2	--	--	497.2	--	497.2
2019	2	976.7	--	1.5	978.2	--	978.2
2020	1	517.2	--	11.0	528.2	--	528.2
2021	2	957.6	--	--	957.6	--	957.6
2022	1	479.3	--	--	479.3	--	479.3
2023	2	947.2	--	--	947.2	--	947.2
2024	1	470.6	--	--	470.6	--	470.6
2025	1	498.6	--	--	498.6	--	498.6
2026	1	480.9	--	--	480.9	--	480.9
2027	1	481.4	--	--	481.4	--	481.4
2028	1	482.7	--	--	482.7	--	482.7
2029	1	488.0	--	--	488.0	--	488.0
2030	1	485.4	--	--	485.4	--	485.4
2031	--	24.8	--	--	24.8	--	24.8
2032	--	8.5	--	--	8.5	--	8.5
Subtotal	17	8409.8	--	109.8	8519.6	--	8519.6

Due to the acceleration to two ships per year in FY 2019, FY 2021 and FY2023, procurements in FY 2031, FY 2032 and FY 2033 have been zeroed out.

Cost Quantity Information		
1611 Procurement Shipbuilding and Conversion, Navy		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2016 \$M
2016	1	700.8
2017	--	--
2018	1	524.2
2019	2	979.2
2020	1	494.5
2021	2	944.6
2022	1	467.9
2023	2	965.4
2024	1	468.6
2025	1	489.8
2026	1	475.6
2027	1	476.0
2028	1	477.3
2029	1	483.9
2030	1	462.0
2031	--	--
2032	--	--
Subtotal	17	8409.8

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	9/22/2017	9/22/2017
Approved Quantity	6	6
Reference	Milestone B/C approval ADM.	Milestone B/C approval ADM.
Start Year	2016	2016
End Year	2022	2022

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the award of a block buy contract with General Dynamics, National Steel and Shipbuilding Company (GD NASSCO) for six ships.

Foreign Military Sales

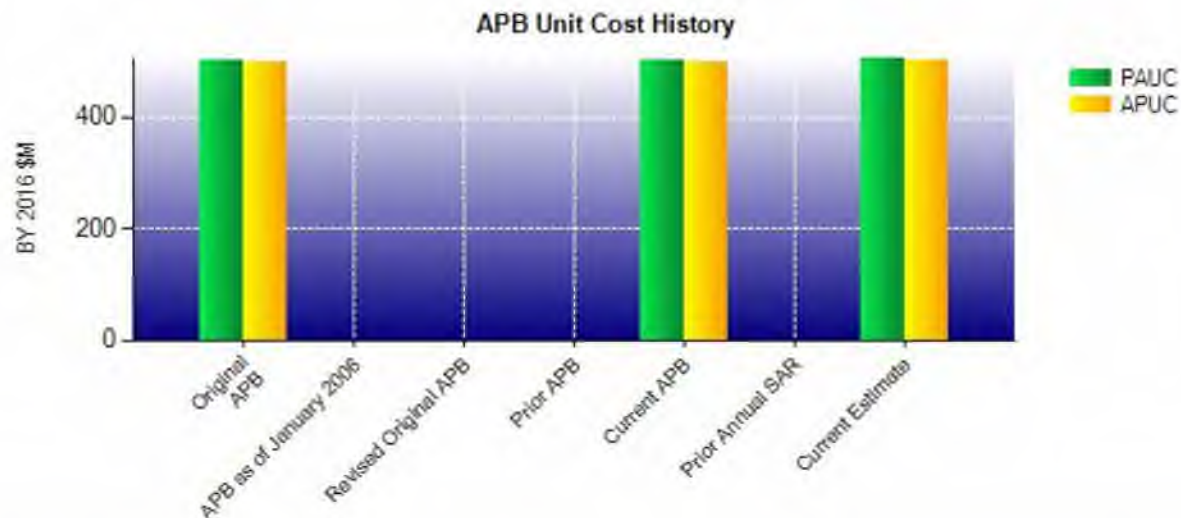
None

Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2016 \$M	BY 2016 \$M	% Change
	Current UCR Baseline (Sep 2017 APB)	Current Estimate (Dec 2017 SAR)	
Program Acquisition Unit Cost			
Cost	8543.5	8587.3	
Quantity	17	17	
Unit Cost	502.559	505.135	+0.51
Average Procurement Unit Cost			
Cost	8475.9	8519.6	
Quantity	17	17	
Unit Cost	498.582	501.153	+0.52
Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2016 \$M	BY 2016 \$M	% Change
	Original UCR Baseline (Sep 2017 APB)	Current Estimate (Dec 2017 SAR)	
Program Acquisition Unit Cost			
Cost	8543.5	8587.3	
Quantity	17	17	
Unit Cost	502.559	505.135	+0.51
Average Procurement Unit Cost			
Cost	8475.9	8519.6	
Quantity	17	17	
Unit Cost	498.582	501.153	+0.52



APB Unit Cost History					
Item	Date	BY 2016 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Sep 2017	502.559	498.582	631.271	627.312
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	Sep 2017	502.559	498.582	631.271	627.312
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2017	505.135	501.153	605.906	601.947

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
631.271	-5.376	0.000	-16.783	0.000	-3.206	0.000	0.000	-25.365	605.906

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
627.312	-5.371	0.000	-16.782	0.000	-3.212	0.000	0.000	-25.365	601.947

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	N/A	Sep 2017	Sep 2017
Milestone C	N/A	N/A	Sep 2017	Sep 2017
IOC	N/A	N/A	Jul 2021	Dec 2021
Total Cost (TY \$M)	N/A	N/A	10731.6	10300.4
Total Quantity	N/A	N/A	17	17
PAUC	N/A	N/A	631.271	605.906

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	67.3	10664.3	--	10731.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	-0.1	-91.3	--	-91.4
Quantity	--	--	--	--
Schedule	--	-285.3	--	-285.3
Engineering	--	--	--	--
Estimating	+0.1	-54.6	--	-54.5
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	-431.2	--	-431.2
Total Changes	--	-431.2	--	-431.2
Current Estimate	67.3	10233.1	--	10300.4

Summary BY 2016 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	67.6	8475.9	--	8543.5
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	+90.5	--	+90.5
Engineering	--	--	--	--
Estimating	+0.1	-46.8	--	-46.7
Other	--	--	--	--
Support	--	--	--	--
Subtotal	+0.1	+43.7	--	+43.8
Total Changes	+0.1	+43.7	--	+43.8
Current Estimate	67.7	8519.6	--	8587.3

Previous Estimate: September 2017

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-0.1
Revised estimate to reflect application of new out year inflation indices. (Estimating)	+0.1	+0.1
RDT&E Subtotal	+0.1	0.0

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-91.3
Acceleration of procurement buy profile from FY 2031, FY 2032 and FY 2033 to two ships per year in FY 2019, FY 2021 and FY 2023. (Schedule)	0.0	-403.9
Additional Schedule Variance due to acceleration of the procurement buy profile and associated re-phasing of support funding. (Schedule)	+90.5	+118.6
Revised estimate to align with FY 2019 PB which supports the Navy Cost Position. (Estimating)	+20.0	+22.8
Adjustment for current and prior escalation. (Estimating)	+8.1	+8.7
Revised outfitting and post delivery estimate to reflect new procurement profile. (Estimating)	-74.9	-86.1
Procurement Subtotal	+43.7	-431.2

(U//FOUO) Contracts**Contract Identification**

Appropriation: Procurement
Contract Name: Detail Design & Construction of T-AO 205
Contractor: General Dynamics, National Steel and Shipbuilding Company (GD NASSCO)
Contractor Location: 2798 Harbor Drive
San Diego, CA 92113-3650
Contract Number: N00024-16-C-2229/1
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: June 30, 2016
Definitization Date: June 30, 2016

(b)(4)

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	0	0	17	0.00%
Total Program Quantity Delivered	0	0	17	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	10300.4	Years Appropriated	8
Expended to Date	180.7	Percent Years Appropriated	36.36%
Percent Expended	1.75%	Appropriated to Date	1345.8
Total Funding Years	22	Percent Appropriated	13.07%

The above data is current as of February 12, 2018.

(U//FOUO) Operating and Support Cost**Cost Estimate Details**

Date of Estimate: July 07, 2017
 Source of Estimate: POE
 Quantity to Sustain: 17
 Unit of Measure: Ship
 Service Life per Unit: 40.00 Years
 Fiscal Years in Service: FY 2021 - FY 2075

Sustainment Strategy

The Military Sealift Command (MSC) maintains the T-AO Fleet Oilers utilizing established sustainment practices and maintenance philosophy which reflect the ship's commercial design and construction, utilization of commercial equipment and MSC's two-level maintenance philosophy consisting of shipboard and depot level maintenance. Sustainment efforts follow commercial merchant service practices that emphasize maximizing cost effectiveness and ship availability. Operating Tempo (OPTEMPO) was assumed 55% of In Fleet Time (IFT) steaming underway and 45% of IFT steaming not underway, the average of the Dry Cargo/Ammunition Ship (T-AKE) Visibility and Management of Operating and Support Costs (VAMOSC) data and the T-AO 201-204 data.

Antecedent Information

The Antecedent Systems are the T-AO 187 Class (specifically hulls T-AO 201-204) and T-AKE 1 Class as these are the most recent double-hulled auxiliary ships. The T-AO 201-204 and T-AKE 1-14 estimates were derived using the Naval Visibility and Management of Operating and Support Costs (VAMOSC) database and the Military Sealift Command (MSC) Indirect values. The years of data used for T-AO 201-204 was FY 1993 through FY 2015. The years of data used for T-AKE 1-14 was FY 2006 through FY 2015.

Annual O&S Costs BY2016 \$M**Cost Element**
**T-AO 205 Class
Average Annual Cost Per Ship**
**T-AO 187 Class (Antecedent)
Average Annual Cost Per Ship**

(b)(5)

(b)(5)