LOGISTICS RESILIENCY:
CAN WE DELIVER SUFFICIENT POL TO THE WARFIGHT?

Jon Kaskin (jkaskin@cox.net)
National Vice President for Legislative Affairs/
Chair, Merchant Marine Affairs Committee
NAVY LEAGUE OF THE U.S.
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1545-1700/Midway 9
Course Objectives

• Discuss likely severe sealift tanker shortfall to logistically support major continency operations with fuel.

• Focus on Pacific theater naval/air operations in a contested environment.

• Suggest near and mid/long term options to address likely shortfall.
Course Outline

• Sealift Tanker Requirements in Support of NDS
• Sealift Tanker Capabilities to Meet Requirements
• Near Term Options to Address Likely Shortfalls
• Mid/Long Term Options to Address Likely Shortfalls
• Summary Conclusions/Take Aways
Sealift Tanker Requirements In Support of NDS

- Prior to current National Defense Strategy (NDS): 86 POL tankers

  A series of DOD mobility studies, informed by our National Military Strategy, have validated the DOD’s sealift requirements as follows…86 petroleum tanker ships…

  While our current sealift capacity is adequate with acceptable risk, the environment is changing rapidly and not necessarily in predictable ways. As such, we can state that our need to project power will not decline, and may increase in the future.

  LTG Lyons LTG Lyons (DCDRTRANSCOM) testimony before HASC Seapower & Force Projection Forces 22 MAR 2016

- Post NDS, MCRS-2018: None Specified!!

<table>
<thead>
<tr>
<th>Mobility Capability</th>
<th>Fleet Size Estimate</th>
<th>Unit of Measure</th>
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<tr>
<td>Strategic Airlift Aircraft</td>
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<td>C-17/C-5</td>
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<td>Commercial Airlift: Civil Reserve Air Fleet (CRAF)</td>
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<td>Cargo/Passenger wide-body equivalent</td>
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<td>Theater Airlift Aircraft</td>
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<td>Organic DOD Controlled Sealift Ships</td>
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<td>Million square feet of Roll on/Roll off capacity</td>
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<td>Commercial Sealift: Voluntary Intermodal Sealift Agreement (VISA), and Allied/Partner Nations’ Ships</td>
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<td>Million square feet of Roll on/Roll off capacity</td>
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<td>Air Refueling Tanker Aircraft</td>
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<td>KC-46/KC-135</td>
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</table>

Tanker Requirements to Support Distributed Naval Operations NOT Included!!
Sealift Tanker Requirements In Support of NDS

2020 HASC NDAA Report:
• Directs USTC, JS, Services to conduct another Mobility Capability Requirements Study to be completed NLT 1 JAN 2021 (interim 1 JUN 2020)
  • Specifies in two pages of detail for composition of study, including anticipated attrition resulting from adversary actions to degrade and disrupt U.S. mobility operations
  • Specifically defines sealift ships to include tanker vessels

2020 SASC NDAA Report:
• Directs GAO to submit a prelim report NLT 1 FEB 2020 to the congressional defense committees to address the following:
  • (1) How are strategic mobility mission requirements evolving, and what implications, if any, are there for strategic mobility force structure;
  • (2) What challenges does the Department face in protecting strategic mobility forces, and what impact, if any, do these have on maintaining needed warfighting capabilities and readiness;
  • (3) To what extent has the Department developed mitigation plans to address any challenges and risk areas, to include relevant training, exercises, and concept development; and
  • (4) Any other related matters deemed appropriate in order to provide a comprehensive examination of mobility in contested environments.
Sealift Tanker Req’ts In Support of Naval Ops

CSBA: Sustaining the Fight: Resilient Maritime Logistics for a New Era (April 2019)

Quantifies Sea-Based Logistics Requirements in Support of Pacific War With Changed Assumptions From Previous MCRS(s):

• From Secure and Proximate to Distant and/or Contested Basing
• From Rear Sanctuary To Global Conflict
• From Gradual Buildup to Rapid Response
• From Short to Potentially Protracted Cross-Domain Conflicts
• From Low to High Attrition Planning (~assumes 20% in contested areas)

• Assuming New Operational Concepts:
  • Distributed Lethality
  • Electromagnetic Maneuver Warfare
  • Distributed Agile Logistics
  • Distributed Maritime Operations
  • Operational Logistics in a Contested Maritime Environment
  • A Design for Maintaining Maritime Superiority 2.0
Impact of Longer Distances to Sources of Supply

Graphic from CSBA Study

Shuttle distances exclusive of evasion routing or other factors. Shuttle time estimates assume average ship speed of 20 knots and do not account for resupply times or other factors.
Impact of Distributed Maritime Operations

- Multiple CVBGs in Close Proximity
- Close Sources of Supply
- Tankers Resupply Shore Storage
- Oilers Shuttle from Shore Sources to CVBGs

More Oilers Needed in Peacetime than Wartime

- Big Decks and SAGs Dispersed
- Distant Sources of Supply
- Tankers Consol With Oilers Outside Threat
- Oilers (T-AO/T-AOL) Shuttle to Dispersed Combatants from CONSOL Area
- Attrition of Oilers Likely

Many More Oilers/CONSOL Tankers Needed in Wartime than Peacetime

Graphics from CSBA Study
Meeting Fleet Refueling Requirements

1. Go Big: CONSOL Tankers (T-AOTs)
2. Go Small: T-AOLs (OSVs)
3. Go Fast: Oilers (T-AO 205s)
4. Go Different: Dracones, Pipefish, and Barges
CONSOL TANKERS REDUCE OILER REQUIREMENT

Graphics from CSBA Study
Modified OSVs/MFDS/AFS Tankers To Support Distributed Surface Ships
Options To Support Advance Bases

- Pipefish: Underwater Self-Propelled Fuel Dracone
- Movable Underwater Storage POL Terminal

Graphic from CSBA Study
A mixed refueling force would not only be more resilient, but also would cost less than an all-oiler fleet.
Tanker Requirements Questions

• How soon are tankers required to support forces ashore and afloat?
• Are 86 product tankers still required for point-to-point POL delivery to support the NDS? (How do China/Russia scenarios differ from Korea?)
• How many additional tankers required to account for attrition?
• How many additional tankers required to support Naval operations (at-sea delivery for DMO and for EABO)? With CONSOL, AFS, MCDS?
• How many OSV-tankers/Pipefish/POL Barges/etc needed to support advanced bases and surface combatants?
• How many additional tankers required to support Allies?
DoD has a major gap in U.S. tankers

- TRANSCOM identified 86 tanker requirement (exclusive of tankers meeting Navy CONSOL requirements) in MCRS-2016
- Only 8 tankers available to DoD (some of which are relied upon for CONSOL support)
U.S.-Flag Oceangoing Tanker Fleet (>1,000 GRT)

- Total U.S.-flag Ocean-Going Tankers: 63
  - Jones Act: 57
    - Non-militarily useful crude carriers: 11
    - Militarily useful product-capable: 46 (2 Chartered to MSC)
  - Non Jones Act: 6
    - Chartered to MSC: 3
    - Dedicated to Israel Oil Exports: 2 (MSP)
    - Enrolled in VTA: 4 (2 in MSP)
- Age Profile
  - 36 <= 10 years old
  - 49 <= 15 years old
  - 53 < 20 years old
  - 10 >= 20 years old
Tanker Capabilities Questions

• How soon can tankers, loaded with the right product, be available in the AOR to support forces ashore and afloat?
• Are there any other reliable sources of product tankers to support requirements?
  • How many product tankers can be chartered off the market?
  • How any product tankers can be sourced from Allies?
  • Will foreign crews need to be replaced with U.S. crews?
• What are the near/mid/long term options to address shortfalls?
Global spare tanker capacity significantly fluctuates

Hoping requisite numbers of foreign tankers will be available in conflict is imprudent.

Note: Circles and red text and lines added to Charles R. Weber Company graph by CSBA.

Graphic from CSBA Study
Near-Mid Term Actions to Address Shortfalls

- Update Tanker Requirements/Shortfalls Though Forthcoming MCRS
- Re-invigorate Voluntary Tanker Agreement-Tanker Req’ts Committee
- Charter Prepositioned POL Storage (Handy-Sized w/CONSOL/MFDS & Supertanker-Sized w/CONSOL)
- Mandate Percentage of U.S. POL Exports on U.S.-Flag Ships
- Mandate DLA Source/Transport POL from U.S. locations on U.S.-flag ships (4-6 tankers?)
- Establish MSP-like program for product tankers
- Install CONSOL/astern refueling rigs on U.S.-flag product tankers
Voluntary Tanker Agreement (VTA)

- VTA, under auspices of the Defense Production Act, was established by MARAD to provide for US commercial tanker owners and operators to voluntarily make their vessels available to satisfy Department of Defense contingency or war requirements for POL movements, and not to deal with capacity shortages in peacetime resupply operations.
- The Maritime Administration (MARAD) requires that each participant in the Voluntary Tanker Agreement submit a list of the names of ships owned, chartered or contracted for by the participant (>20K DWT), and their size and flags of registry... This information will be used by both MARAD and Department of Defense to establish overall contingency plans. Respondents are tanker companies that operate in international trade and who have agreed to participate in this agreement.
- Activated by CDRUSTRANSCOM, with SECDEF approval, for tanker capacity emergency.
- Establishes a Tanker Requirements Committee: Provides USTC, MARAD (co-chairs) & Participants a forum to:
  - Analyze DoD contingency requirements
  - ID commercial tanker capacity to meet DoD contingency requirements, exercises, special movements
  - Develop CONOPS
  - Advise Administrator on the tanker capacity controlled by each Participant capable of meeting Contingency requirements
  - Consists of MARAD, USTRANSCOM (including MSC), DESC, each Participant & Maritime Labor
- Allows for Jones Act Waivers for tankers replacing Jones Act tankers Participants provided for Contingencies.

ONLY 4 U.S.-Flag (no U.S.-Owned) Tankers Enrolled (2 from MSP + 1 on MSC Charter)
Energizing American Shipbuilding Act of 2019
H.R. 3829/S.2167

To require a certain percentage of natural gas and crude oil exports be transported on United States-built and United States-flag vessels, and for other purposes.

- Requires 3% Oil Exports on U.S.-flag Tankers First 7 years.
- Requires 6% to 8% gradually next 8-13 years, 10% thereafter.
- Requires U.S. build after 4th year.
(Similar but different timelines for LNG Tankers)

According to an estimate from the Shipbuilders Council of America, bill would result in the construction of ~12 oil tankers by 2033 (40 total ships).
Tanker Security Fleet  
2020 House NDAA

- MSP-like program for tanker vessels
- Starts in 1 JAN 2021 for up to 10 vessels in U.S.-foreign/foreign-foreign trades
- Self-propelled vessel, militarily useful, less than 10 years old at start
- Must enroll in an emergency preparedness program (e.g. VTA)
- Replacement vessels during call-ups eligible for preference cargoes
- Authorizes $6M/Vessel ($60M) FY2021-FY2035

Good Start Against Undefined Shortfall—but Future Funding & Competition with MSP Reauthorization and Cable Security Fleet Authorization May Push to Next Year
Long Term Actions to Address Shortfalls

- Expand Afloat Prepo and Tanker Security Fleet (w/CONSOL, MFDS, AFS) to Meet Forthcoming MCRS Point-to-Point and Naval Requirements

- Build T-AOL’s, Pipefish, Mobile Underwater Storage Systems and Additional T-AO’s to support Naval Requirements per Validated Classified Analysis

- Incorporate Appropriate Self-Defense Systems on Tanker Assets and/or Increase Navy Force Structure to Provide Escort/Area Protection
CSBA Suggestions on Growing the Tanker Fleet

A National Fleet approach to securing access to U.S. Government and U.S. commercial tankers could rapidly and economically meet requirements.
Some Takeaways

• Don’t assume nearby/infinite sources of supply and their invulnerability
• Don’t wish away threats to SLOC—account for protection/attrition
• Our potential adversaries are fully aware of our logistics vulnerabilities
• Logistics shortfalls won’t be addressed unless criticality is demonstrated
• Near term actions must be taken now –
  • define requirements
  • setup VTA Tanker Requirements Committee
  • charter POL floating storage ($’s)
  • develop/refine LOG CONOPS
  • program long term resilient logistics capabilities

Addressing shortfalls will require scarce $’s—but no action = failure
QUESTIONS/COMMENTS??
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BACKUP SLIDES
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## Overall Recommendation

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<th>Ship Type</th>
<th>FY 2019 Navy, Current</th>
<th>CSBA, Proposed</th>
<th>FY2033 Navy, Projected</th>
<th>CSBA, Proposed</th>
<th>FY2048 Navy, Projected</th>
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<td>Fast Combat Support Ship (T-AOE)</td>
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<td>Light Oiler (T-AOL)**</td>
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<td>Float-On/Float-Off Heavy Lift Ship**</td>
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<td>315</td>
<td>325</td>
<td>347</td>
<td>337</td>
<td>364</td>
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</table>

* Potential candidate for the Common Hull Auxiliary Multi-Purpose (CHAMP) vessel.
** Portions of this fleet may be applicable for long-term charter or a variant of the Maritime Security Program. Current CONSOL tankers are MSC longer-term charters and not counted in the Navy Battleforce.
*** Portions of this fleet may applicable for placement into the Ready Reserve Force.
**** Current Navy Battleforce counting rules omit many types of auxiliaries. The CSBA, Proposed Battleforce count projections have added to the Navy, Proposed Battleforce count any additional buys for planned Navy programs (T-AO 205, AS(X)), along with Surface Combatant Tenders, Unmanned System Tenders, and Light Hospital Ships. T-AOTs, T-AKERs, T-AKMs, and T-AOLs are, for all intents and purposes, part of the CLF in the view of this study, but partial placement into the RRF, in MSP, or on MSC long-term charter complicates their counting as part of the Battleforce.
Assured Access to FLO/FLOs

- Hoping requisite numbers of foreign FLO/FLOs will be available in conflict is imprudent.
- Options
  - Acquisition or long-term charter
  - Public-private partnership
  - Specialized, higher MSP stipend and slots

*The Navy should secure assured access to FLO/FLOs, rather than relying on the financially, politically, and threat-sensitive open market.*
Proposed Logistics Fleet

Additional SCN, Sealift, MSC charter, and MSP costs of $47.8 billion over 30 years
Composition of Planned and Alternate Fleets

<table>
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<th>Plan Type</th>
<th>2034</th>
<th>2049</th>
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<td>USN 30-Yr Plan</td>
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<tr>
<td>Logistics Enhancement</td>
<td>+%2 logistics ships (+22 in Battle Force)</td>
<td>+%79 logistics ships (+27 in Battle Force)</td>
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<td>Cost-Neutral Alternative</td>
<td>+%Logistics Enhancements; - Slow CVN acquisition*, -3 DDG-51s, -1 FFG, -1 LPD-17</td>
<td>+%Logistics Enhancements; - Slow CVN acquisition, -3 DDG-51s, -2 LSC, -1 FFG, -1 SSC, -1 LPD-17</td>
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<td>+%Logistics Enhancements; - Slow CVN acquisition, -9 DDG-51, -7 LSC, -1 FFG, -4 SSN-774, -4 SSN(X), -2 SSGN(X), -2 LPD-17, -2 LHA Flt 1, -1 T-AO 205, -1 T-AKE(X)</td>
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</table>

*Slowing CVN acquisition consists of pushing CVN 83 to FY 33 (vice FY 32), resulting in one fewer CVN over 30-Yr shipbuilding plan.
More Refueling Assets Generate More Combat Ships on Station

* Consists of CVNs, Surface Combatants, and Amphibious Ships

* Increases to maritime logistics accounts—and in turn combat fleet warfighting potential—achievable with additional total resources or by reallocating a small portion of currently-planned combatant resources