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**UNITED STATES TRANSPORTATION COMMAND**  
Comprehensive Report for TURBO ACTIVATION 19-PLUS



Prepared by  
USTRANSCOM J37

16 December 2019

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## UNITED STATES TRANSPORTATION COMMAND

508 SCOTT DRIVE  
SCOTT AIR FORCE BASE, ILLINOIS 62225-5357

### TURBO ACTIVATION 19-PLUS AFTER ACTION REPORT

This is the official After Action Report (AAR) for TURBO ACTIVATION 19-PLUS (TA 19+). TA 19+ executed from 16 September 2019 – 29 September 2019 in accordance with United States Transportation Command Instruction (USTCI)10-03, *TURBO ACTIVATION EXERCISE PROGRAM*.

Results in this report are drawn from official TA scorecards, subjective (anonymous) ship master assessment of mariner performance, and analysis of mission suitability based on ship casualty reporting.

The purpose of this report is two-fold: (1) to objectively evaluate the ability of as many Organic Surge Fleet vessels as possible to transition from Reduced Operating Status (ROS) to Full Operating Status (FOS) within 120 hours; and (2) to assess the vessels' performance, DOD policies, MSC and MARAD processes, and surge sealift infrastructure factors that contribute to Organic Surge Fleet output under wartime conditions. Organic Surge Fleet readiness is based on three distinct elements: (1) vessel availability in a ready-for-tasking condition; (2) vessel activation to achieve a ready-for-sea status; and (3) vessel reliability underway to accomplish the necessary voyages to complete the initial operational plan (OPLAN) deployment. This report focuses primarily on the second element, the ability to achieve a ready-for-sea status from ROS, but also identifies those factors that degrade overall sealift output across the other elements. To fully address Organic Surge Fleet readiness to accomplish wartime missions, all three elements must be addressed which is beyond the scope of this report. This report aims to comment on these stated purposes as well as draw conclusions as to the Organic Surge Fleet's readiness/suitability to a conduct a large-scale inter-theater force deployment associated with OPLAN execution on any given day, based upon TA 19+ observed findings.

APPROVED FOR RELEASE BY:



12-16-19

Dee L. Mewbourne, Vice Admiral, U.S. Navy  
Deputy Commander, United States Transportation Command

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### USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS

#### Executive Summary

In September 2019, U.S. Transportation Command (USTRANSCOM) conducted a no-notice, large-scale readiness exercise of the 61 sealift vessels assigned to the Organic Surge Fleet. Referred to as TURBO ACTIVATION 19-PLUS (TA 19+), the exercise comprised in-port and underway assessments of mission readiness. In total, 32 ships got underway. This large-scale vessel activation required substantial contributions from maritime labor and the sealift industry to generate so many vessels. Not only was TA 19+ the largest such exercise in USTRANSCOM history, but the integrity of the exercise coupled with the large sampling percentage yielded extremely high confidence in the validity of the test results.

Key findings from TA 19+ include the following:

- Of the 61 ships assigned to the Organic Surge Fleet at the start of TA 19+, a total of 63.9% (39 of 61 ships) were ready for tasking (RFT). This static test value was consistent with the 65% average of square footage capacity for FY19 that was calculated for the inclusive 50 Roll-On/Roll-Off (RO/RO) vessels (35 MARAD, 15 MSC). The primary driver for the 63.9% RFT rate is the high number of ships (19.7%) with C-4 casualties (deficiencies with mission essential equipment that cause a loss of at least one primary mission). The low RFT Rate (63.9%) will lead to fewer ships available to immediately respond to a contingency, which could delay force flow to a theater and the subsequent buildup of combat power.
- There were 33 of 61 ships in a Reduced Operating Status (ROS) directed to activate to Full Operating Status (FOS) in order to participate in the underway portion of TA 19+. In total, 81.8% (27 of 33) of the vessels achieved FOS and reported Ready for Sea (RFS) within the prescribed 120-hour timeframe. The RFS Rate (81.8%) is satisfactory for the Organic Surge Fleet mission set.
- A qualitative mission success evaluation was performed on the 32 TA 19+ vessels which were activated and assessed underway to determine whether each of the vessels would be able to conduct a trans-oceanic mission associated with existing large-scale OPLANs without mission impact (undue delay or significant mitigation). The evaluation revealed that 9 vessels had discrepancies which could potentially impact the mission. The relatively low (77.8%) Qualitative Mission Success Rate indicates the Organic Surge Fleet is challenged to be immediately available for a large-scale inter-theater force deployment without delays/impacts to force closure due to degraded readiness.
- To be available to execute a large-scale inter-theater force deployment, vessels in the Organic Surge Fleet must be ready for tasking (RFT rate 63.9%), they must be able to transition from ROS-to-FOS within prescribed timelines (RFS rate 81.8%), and they must be able to complete the voyage without undue delay or significant mitigation (Qualitative Mission Success rate 77.8%). Readiness goals aim for the Organic Surge Fleet to have an 85% availability on any given day to support large-scale force deployments. The low Cumulative Fleet Success Rate of 40.7% suggests the Organic Surge Fleet is challenged to meet these objectives.

In summary, TA 19+ validated known concerns regarding the readiness of the Organic Surge Fleet and reinforced the need for recapitalization, appropriate levels of resourcing to correct material deficiencies, and continued emphasis on readiness improvements.

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- 1. Introduction/Background.** The U.S. Transportation Command (USTRANSCOM) TURBO ACTIVATION (TA) exercise program is an annual series of no-notice vessel activations of the USTRANSCOM Organic Surge Fleet composed of the Military Sealift Command (MSC) Surge Fleet and the Maritime Administration (MARAD) Ready Reserve Force (RRF). The primary purpose is to validate the readiness of randomly selected vessels through evaluation of their ability to meet activation time standards and Department of Defense (DOD) mission requirements to provide the Commander, USTRANSCOM, with an assessment of the Organic Surge Fleet. An associated, secondary purpose of TA exercises is to incorporate MSC-led “Contested Environment” (CE) training to advance mariner preparedness to perform in wartime. USTRANSCOM initiated TA exercises in 1994 following the RRF activations conducted in support of the DESERT SHIELD Phase I deployment and in response to a Mobility Requirements Study (MRS). From 1994 to 2009, the TA exercise series focused on RRF vessels. Beginning in 2010, TA exercises included MSC Surge Fleet vessels, resulting in USTRANSCOM, MSC, and MARAD representatives collaboratively redesigning the USTRANSCOM TA exercise program into an objective, standards-based evaluation of pier-side actions and underway activities fundamental to wartime readiness for 8-10 vessels per year. In 2017, based on analysis provided by the USTRANSCOM Joint Distribution Process Analysis Center, USTRANSCOM established 22 vessels as the annual TA goal to achieve 95% confidence that TA results accurately reflect the readiness of the 61 vessels of the Organic Surge Fleet. In mid-September 2019, USTRANSCOM received funding support from the U.S. Navy to conduct an expanded, end-of-Fiscal Year (FY), no-notice vessel activation. A concept of operation (CONOP) was rapidly developed and approved for immediate execution (Appendix A, Figure A-1). This exercise, designated TURBO ACTIVATION 19-PLUS (TA 19+), executed as a no-notice, nearly simultaneous activation of 33 vessels from 16 different layberth locations. This event was the largest vessel activation exercise in USTRANSCOM history and required substantial contributions from maritime labor and the sealift industry.
- 2. Purpose.** The purpose of TA 19+ was two-fold: (1) to objectively evaluate the ability of Organic Surge Fleet vessels, at a fleet-wide level, to transition from Reduced Operating Status (ROS) to Full Operating Status (FOS) within 120 hours; and (2) to assess the vessels’ performance, DOD policies, MSC and MARAD processes, and surge sealift infrastructure factors that contribute to Organic Surge Fleet output under wartime conditions. Organic Surge Fleet readiness is based on three distinct elements: (1) vessel availability in a ready-for-tasking condition; (2) vessel activation to achieve a ready-for-sea status; and (3) vessel reliability underway to accomplish the necessary voyages to complete an initial operational plan (OPLAN) deployment. TA 19+ focused primarily on the second element, the ability to achieve a ready-for-sea status from ROS, but also identifies those factors that degrade overall sealift output across the other elements. To fully address Organic Surge Fleet readiness to accomplish wartime missions, all three elements must be addressed which is beyond the scope of this report. This After Action Report (AAR) aims to comment on the above stated purposes and draw conclusions based upon the TA 19+ observed findings as to the Organic Surge Fleet’s readiness/suitability to conduct a large-scale inter-theater force deployment associated with OPLAN execution on any given day. Additionally, TA 19+ enabled an evaluation of whether the dynamic performance (ROS-to-FOS and underway) of the Organic Surge Fleet is consistent with MSC’s static daily reported readiness.
- 3. Methodology/Scope.** On 13 September 2019, USTRANSCOM produced a randomly generated list of the entire 61-vessel Organic Surge Fleet and established this list as the serial order for TA 19+. The

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randomly generated list, as drawn, is presented in Table 1.<sup>1</sup>

Selection Order	Vessel Name	Selection Order	Vessel Name	Selection Order	Vessel Name
1	CAPE HENRY	22	CAPE VINCENT	43	BRITTIN
2	CAPE WRATH	23	CAPE INSCRIPTION	44	CAPE TRINITY
3	CAPE DECISION	24	CAPE RAY	45	CAPE HUDSON
4	CAPE RACE	25	BELLATRIX	46	FISHER
5	CAPE HORN	26	REGULUS	47	KOCAK
6	GILLILAND	27	BENAVIDEZ	48	PETERSBURG
7	WHEAT	28	CAPE ISABEL	49	CAPE INTREPID
8	CORNHUSKER STATE	29	GORDON	50	CAPE DIAMOND
9	CAPE KNOX	30	OBREGON	51	CAPE RISE
10	YANO	31	CAPELLA	52	SHUGHART
11	ADMIRAL CALLAGHAN	32	CAPE DOUGLAS	53	GEM STATE
12	CAPE KENNEDY	33	PLESS	54	CAPE TAYLOR
13	MENDONCA	34	CAPE DOMINGO	55	POLLUX
14	CAPE MOHICAN	35	CAPE VICTORY	56	CAPE ORLANDO
15	GRAND CANYON STATE	36	CAPE ISLAND	57	GOPHER STATE
16	CAPE EDMONT	37	CAPE TEXAS	58	WRIGHT
17	CURTISS	38	FLICKERTAIL STATE	59	KEYSTONE STATE
18	CAPE DUCATO	39	CAPE WASHINGTON	60	ALTAIR
19	WATKINS	40	MARTIN	61	DENEBOLA
20	ANTARES	41	CAPE MAY		
21	BOB HOPE	42	ALGOL		

Table 1: Random Order of Vessel Selection

On 16 September 2019, in accordance with (IAW) USTRANSCOM Instruction (USTCI) 10-03, *TURBO ACTIVATION (TA) EXERCISE PROGRAM*, reference 1, the TA Program Manager reviewed the “C-Status” of each vessel to develop an executable TA 19+ vessel roster, identifying 35 vessels as TA available. A total of 26 vessels were not available for TA 19+ for one of three reasons: 12 vessels were in C-4 unplanned maintenance and categorized as “TA 19+ Unsuccessful-Maintenance;” 10 vessels were in C-5 planned maintenance and categorized as “TA 19+ Unavailable-Maintenance;” and 4 vessels were conducting operational missions and categorized as “TA 19+ Successful-Mission Operation.” TA 19+ commenced with the release of USTRANSCOM MESSAGE DTG 161650ZSEP19, *TA 19-PLUS ACTIVATION ORDER FOR ORGANIC SURGE FLEET VESSELS, SEPTEMBER 2019*, reference 2. This order directed the activation and evaluation of 28 randomly selected vessels (6 MSC Surge Fleet and 22 MARAD RRF), and the concurrent conduct of CE training (as coordinated separately for 4 of the activated vessels). The close-hold nature of the exercise precluded funding estimates for each TA 19+ vessel prior to execution. Following the initial 28-vessel activation, a fragmentary order, FRAGORD 01 DTG 181902ZSEP19, FRAGORD 01 TO *TA 19-PLUS ACTIVATION ORDER FOR ORGANIC SURGE FLEET VESSELS*, reference 3, directed the TA of 7 additional vessels. Based on available funding, activation occurred for only 5 of the 7 vessels directed in FRAGORD 01. Three vessels activated on 18 September 2019, and 2 vessels activated on 21 September 2019, bringing the total number of TA 19+ vessels activated to 33 from 16

<sup>1</sup>The CURTISS and WRIGHT are not under the combatant command authority of USTRANSCOM.

different layberth locations. The two vessels not activated (WRIGHT, DENEbola) were withheld due to funding. Out of 39 available vessels, 4 C-1 vessels were at sea and only 2 C-2 vessels did not activate due to funding limitations. Due to the number of vessels activated, USTRANSCOM considered this a fleet-wide activation for the purpose of this assessment, addressing not only the 33 activated vessels but also those vessels not in a condition for activation. Per reference 1, evaluation for each vessel was based on established, objective standards contained within attachment 6 of reference 1, the *ORGANIC SURGE FLEET ACTIVATION SCORECARD*. A copy of the *ORGANIC SURGE FLEET ACTIVATION SCORECARD* is presented as Attachment 1.

Official representatives of MSC and MARAD deployed to the various layberth locations to serve as evaluators tasked to complete and submit activation scorecards for each TA 19+ vessel (contained within Appendix C). Upon notification of activation, evaluation for each vessel occurred during two sequential phases of the TA exercise: a five-day period at layberth which evaluated specified In-port Procedures during the ROS-to-FOS transition and a three-day period underway which evaluated TA-prescribed At-sea Operations. No cargo was loaded on any vessel during TA 19+.

Four designated vessels (CURTISS, CAPE INSCRIPTION, FISHER, BENAVIDEZ) remained underway for up to 24 additional hours to conduct MSC-led CE training. Execution of TA 19+ commenced 16 September 2019 and ended 29 September 2019 when the last vessel returned to layberth and resumed ROS posture. Following the At-sea Operations portion of the exercise, the USTRANSCOM TA Program Manager issued an anonymous survey to each activated TA 19+ ships' master to help assess the proficiency of assigned crew and quality of support services received. A copy of the survey is presented in Attachment 2.

Analysis of the TA 19+ performance was informed by examination of the *Military Sealift Command TA 19 PLUS AAR*, reference 4; the *Maritime Administration AFTER ACTION REPORT FOR TURBO ACTIVATION (TA) 19 PLUS*, reference 5; the *Maritime Administration TA-19 PLUS LESSONS LEARNED*, reference 6; and review of numerous responses to post-TA 19+ requests for information (RFIs). The assessment team used a variety of parametric and non-parametric statistical methods and metrics (e.g., Chi-Square, Binomial Test, Pearson's Correlation Coefficient) to describe and compare the data.

#### 4. Chronology.

Random vessel order drawn: 13 September 2019  
C-Status polled to develop execution roster: 16 September 2019

1st tranche Activation Order (28 vessels) DTG: 161650ZSEP19  
In-port Procedures: 16-21 September 2019  
At-sea Operations: 21-24 September 2019  
CE Training (four vessels): 25 September 2019  
Resume ROS: 25 September 2019  
CE Vessels Resume ROS: 26 September 2019

2nd tranche FRAGO 01 (3 vessels) DTG: 181902ZSEP19  
In-port Procedures: 18-23 September 2019  
At-sea Operations: 23-26 September 2019  
Resume ROS: 27 September 2019

3rd tranche VOCO off FRAGO 01 (2 vessels): 21 September 2019  
In-port Procedures: 21-26 September 2019

At-sea Operations: 26-28 September 2019  
 Resume ROS: 29 September 2019

Survey issued to MSC and MARAD Ships' Masters: 15 October 2019  
 Survey Responses Received: 23 October 2019

**5. Results and Evaluation.** Per reference 1, the point-of-departure for the evaluation of MSC Surge Fleet and MARAD RRF vessels to assess the Organic Surge Fleet is the selection, exercise, and evaluation of vessels against TA-prescribed tasks. Appendix A, Table A-1 and Appendix B present an overview and summary of the TA 19+ vessels performance based on activation scorecards and the C-Status at the time of the activation, as well as selected vessel demographics. C-Statuses, as defined per reference 1, are presented in Table 2.

C-Status	Definition
C-1	No mission degrading deficiencies exist, or vessel is currently on mission.
C-2	A deficiency exists in mission equipment that causes a minor degradation in any primary mission, or a major degradation or total loss of a secondary system.
C-3	A deficiency exists in mission essential equipment that causes a major degradation but not the loss of a primary mission.
C-4	A deficiency exists in mission essential equipment that causes a loss of at least one primary mission.
C-5	Scheduled major maintenance action in progress. Ship is not prepared for mission.

Table 2: C-Status Definitions per USTCI 10-03

**5.1. Ready-for-Tasking (RFT) Rate.** Ready-for-Tasking Rates were statically evaluated through examination of the entire Organic Surge Fleet's reported "C-Status" on 16 September 2019. Vessels in C-1, C-2, or C-3 status were considered RFT. Vessels in C-4 or C-5 status were considered not RFT. At the time of the initial activation message transmittal, 12/61 vessels (19.7%) were in C-4 status and 10/61 vessels (16.4%) were in C-5 status. A total of 39/61 vessels (63.9% RFT Rate) were in C-1, C-2, or C-3 status. The high rate of C-4 casualties (19.7%) drove a low RFT Rate (63.9%). Results are presented in Appendix A, Table A-1.

The RFT rate of the 50 Roll-On/Roll-Off (RO/RO) vessels assigned to the Organic Surge Fleet (35 MARAD, 15 MSC) is calculated and reported daily as a percentage of available square footage RFT. In FY19, the average rate was 65%, which corroborates the RFT Rate (63.9%) observed during TA 19+. The low RFT Rate (63.9%) leads to fewer ships available for immediate response to a contingency, which could delay force flow to a theater and the subsequent buildup of combat power. To compensate, USTRANSCOM would need to source additional ships from outside the Organic Surge Fleet to ensure the available capacity to meet force flow requirements. Recommend MSC and

MARAD develop and execute a concerted readiness recovery program to address the high rate of C-4 casualties (19.7%) as soon as possible.

**5.2. Ready-for-Sea (RFS) Rate.** Ready-for-Sea Rates were evaluated per paragraph 2.J of Attachment 1 on all 33 vessels receiving activation notices. In total, 32/33 vessels completed In-port Procedures and declared RFS without incurring a C-4 casualty. Additionally, 27/33 vessels (81.8%) declared RFS within 120 hours of activation notification.<sup>2</sup> The average time to declare RFS was 118.5 hours. Results of the RFS declaration evaluation are presented in Appendix A, Table A-1. Notably, 3 of the 6 vessels that delayed declaring RFS were in the Beaumont, Texas region (CAPE TEXAS, CAPE TRINITY, REGULUS). Tropical Storm Imelda directly affected these vessels, resulting in delays throughout the activation process, including crew mustering and the delivery of necessary supplies and services. While included in the RFS rate, one activated vessel (REGULUS) did not get underway due to safety concerns involving air clearance beneath the MLK Bridge in Port Arthur, Texas. One vessel (FISHER) delayed 49.5 hours because of a Simplified Voyage Data Recorder (SVDR) malfunction, which resulted in a C-4 CASREP and required correction to gain U.S. Coast Guard (USCG) permission to depart the port. One vessel (GILLILAND) delayed reporting RFS by 3 hours to clear a sounding tube self-closing valve discrepancy. A final vessel (CAPELLA) initially declared RFS in less than 120 hours but experienced a fire in a stateroom and subsequently had to rescind its RFS declaration and complete another USCG inspection. The vessel ultimately declared RFS 3.7 hours late. The RFS Rate (81.8%) is satisfactory for the Organic Surge Fleet mission. Additionally, although MARAD intends to remove three feet of stack height from two vessels (REGULUS and POLLUX) during their next dry dock period to mitigate air draft safety concerns, recommend further analysis of the impacts to large-scale Organic Surge Fleet operations caused by weather phenomenon within the Gulf Coast region.

**5.3. TA 19+ Pass Rates.** TA 19+ Pass Rates were evaluated in accordance with reference 1 and encompassed the performance of 32 of 33 activated vessels in C-2 or C-3 status, along with the 4 vessels in C-1 status and the 12 vessels in C-4 status. Activation results are presented in Appendix A, Table A-1. One activated vessel (REGULUS) was not included in the TA 19+ Pass Rate calculation, as it did not get underway due to safety concerns involving air clearance beneath the MLK Bridge in Port Arthur, Texas, combined with an exercise funding constraint. Vessels already on a mission as well as activated vessels in C-2/C-3 status achieving an activation score of 70% or better were considered to have passed the activation. Vessels in C-4 status at the time of activation were considered to have failed the activation. The total TA 19+ Pass Rate (includes C-1 and C-4 vessels drawn for activation) was 32/48 vessels (66.7%).

There is a statistical difference between the average TA 19+ scores for vessels in C-2 status compared to vessels in C-3 status. Vessels in C-2 status (at the time of the TA) had a median score of 95 and a 92.6% (25/27 vessels) pass rate, whereas vessels in C-3 status scored significantly lower on the TA with a median score of 73 and a 60% (3/5 vessels) pass rate. The TA 19+ score distributions by C-Status (at activation) are shown in Figure 1. The TA 19+ pass/fail comparison by C-Status (at activation) are shown in Figure 2. Current Joint Staff planning guidance assumes equal ability to conduct the surge sealift mission regardless of C-2 or C-3 status. The low rate of TA 19+ success demonstrated by vessels in C-3 status (60%) will introduce risk of delayed force closure (and corresponding risk to mission) with increasing significance as the number of C-3 vessels utilized

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<sup>2</sup> TA 19+ Quick Look Report stated RFS rate as 28/33 vessels (84.8%); updated metrics include CAPELLA's late declaration due to a stateroom fire.

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increases. Recommend MSC and MARAD focus on addressing all C-3 casualties as soon as possible to reduce the risk to mission incurred by the Joint Force resulting from these casualties.

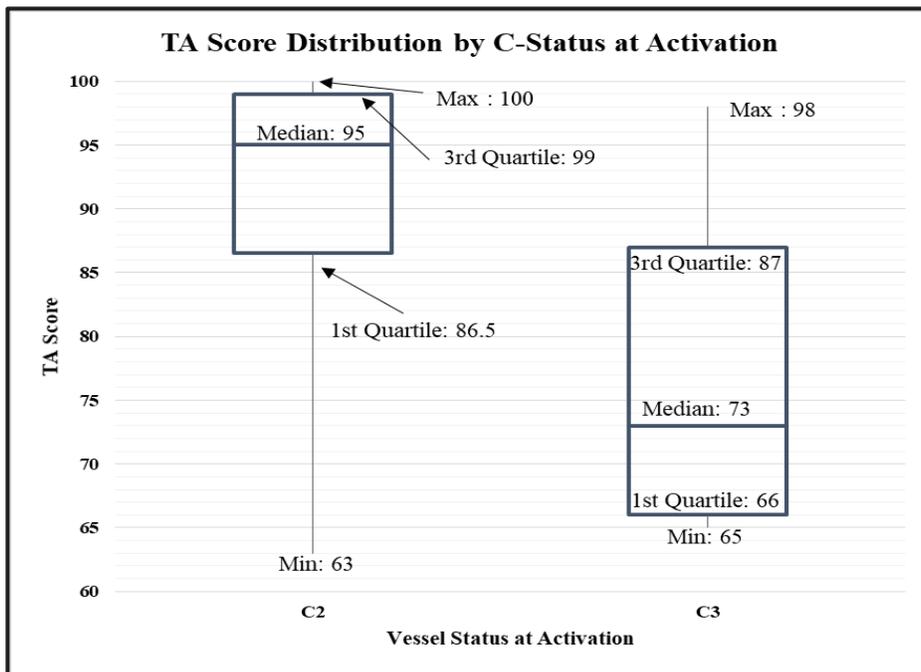


Figure 1: Boxplot showing Min, 25%, Median, 75%, Max Scores for C-2 vs. C-3 vessels

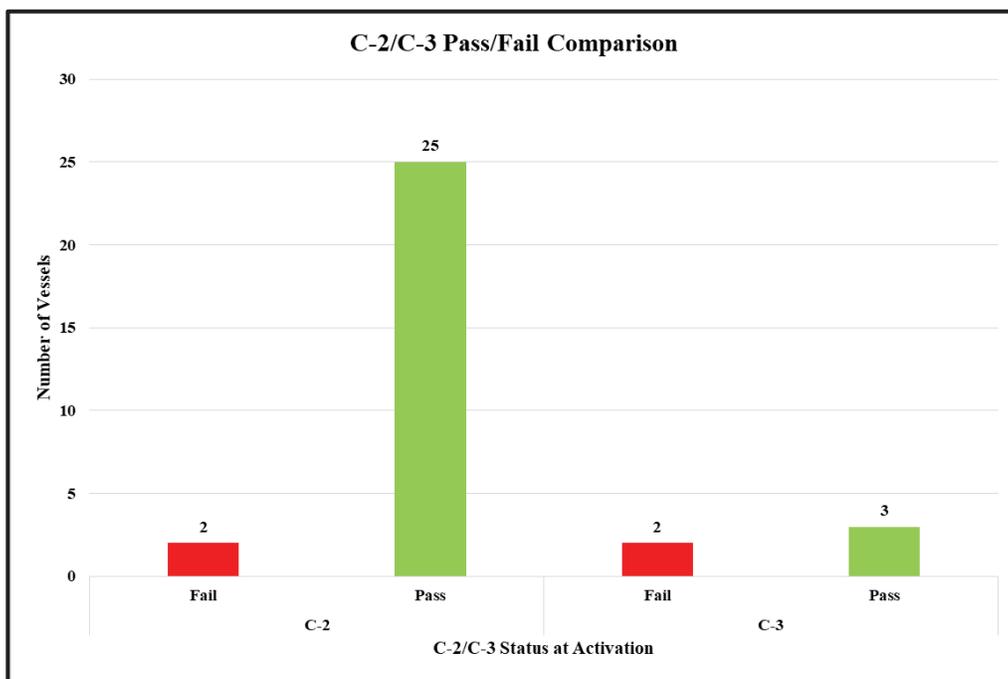


Figure 2: C-Status Pass/Fail Comparison

**5.4. Propulsion System Dynamic Readiness.** Vessel propulsion system dynamic readiness was evaluated for the 32 TA 19+ vessels that conducted the At-sea Operations portion of the exercise. The evaluation included an Operational Speed Run, Ahead-to-Astern test, and an Astern Endurance trial, as described in paragraphs 3.A, 3.B, and 3.C of Attachment 1. Results from the dynamic propulsion tests are presented in Appendix A, Table A-2. All dynamic propulsion evaluations were conducted in Beaufort sea states of 3 or less with the exception of one vessel in sea state 4 (MENDONCA) and two vessels (FISHER, CAPE ISLAND) in sea state 5. All 32 vessels successfully completed the Ahead-to-Astern test and the Astern Endurance trial. Successful completion of an Operational Speed Run was attained by 24/32 vessels (75%), while partial credit was given to 4/32 vessels (12.5%) and no credit was given to 4/32 vessels (12.5%).

Of the 15 vessels with a steam type propulsion plant, 13/15 vessels (87.5%) successfully completed the Operational Speed Run, with 1 vessel (OBREGON) receiving partial credit and 1 vessel (CAPE MOHICAN) failing the Operational Speed Run. Of the 16 vessels with a diesel type propulsion plant, 11/16 vessels (68.75%) successfully completed the Operational Speed Run, with 2 vessels (GILLILAND, CAPE TRINITY) receiving partial credit, and 3 vessels (BENAVIDEZ, FISHER, MENDONCA) failing the Operational Speed Run. The single gas turbine powered vessel (ADM CALLAGHAN) received partial credit for the Operational Speed Run.

Three of the four vessels that received partial credit for the Operational Speed Run reported problems for which points were deducted. One vessel (CAPE TRINITY) had limited propeller pitch control at the bridge and engine room, but full pitch control locally at the controllable pitch propeller box. The vessel met the speed requirements for this test, but the observer deducted points due to the control limitations. Another vessel (GILLILAND) was unable to stow an anchor, thus limiting their speed for safety reasons. The third vessel (ADM CALLAGHAN) completed the Operational Speed Run at the required speed, but the TA 19+ evaluator deducted points after observing an engine restart system casualty during follow-on MARAD sea-trial events. The fourth vessel (OBREGON) reported no casualties but sustained an average speed of only 16.8 knots, short of the 20-knot speed requirement for the class.

Of significance, 0/4 LMSRs (0%) successfully completed the Operational Speed Run, with three receiving a failing score (BENAVIDEZ, FISHER, MENDONCA). The LMSR Operational Speed Run failures were all due to propulsion system casualties. One LMSR failure (FISHER) resulted from a pre-existing condition (sheared turbo charger foundation bolts) which imposed a speed limitation of 18 knots. Another LMSR failure (BENAVIDEZ) resulted from a high jacket water temperature condition leading to a 16.4 knot run, below the 24-knot requirement. The last LMSR failure (MENDONCA) resulted from a main engine 2A and main engine 2B load-sharing failure which prevented an Operational Speed Run and would have prevented the ship from deploying on a trans-oceanic mission. The final Operational Speed Run failure was on a Heavy Lift type vessel (CAPE MOHICAN) and was due to a control automation casualty causing the ship service turbine generator to trip offline.

The four LMSRs that attempted the At-sea Operations phase of TA 19+ have a combined military useful square footage of 1,485,077 sq. ft. This capacity represents 28.9% of the total military useful square footage of the vessels that attempted the At-sea Operations phase. The low Operational Speed Run Success Rate (0%) of the LMSR's means a significant component of MSC's Surge Fleet was not able to utilize the full operational speed envelope. This will reduce the flexibility of the fleet to recover from voyage changes or delays in transit. Recommend MSC investigate and correct propulsion deficiencies of LMSRs as soon as possible.

**5.5. Pre-Departure Main Engines, Shafting and Associated Auxiliaries.** Main engines, shafting and associated auxiliary systems were tested on the 33 TA 19+ vessels during the In-port Procedures phase as described in paragraph 2.B of Attachment 1. Results from the tests are presented in Appendix A, Table A-3. The success rate was 32/33 vessels (97%). The one vessel that failed (FISHER) began the exercise with multiple sheared turbo charger foundation bolts, which restricted its maximum speed to only 75% of the required operational speed (18 knots as opposed to 24 knots) until repaired. The high pre-departure main engines, shafting, and associated auxiliaries test success rate (97%) is satisfactory for the Organic Surge Fleet mission set. However, due to the restrictions imposed by sheared turbo charger foundation bolts, recommend MSC address all existing sheared turbo charger foundation bolt discrepancies as soon as possible.

**5.6. Pre-Departure Generators and Associated Auxiliary Systems.** Generators and associated auxiliary systems were tested on the 33 TA 19+ vessels during the In-port Procedures phase as described in paragraph 2.A of Attachment 1. Results from the tests are presented in Appendix A, Table A-3. The success rate was 30/33 vessels (90.9%). Three vessels received partial credit (CAPE KENNEDY, CAPE RAY, GEM STATE). The nature of the discrepancies that led to partial credit varied. One vessel (CAPE KENNEDY) required repairs to two of its ships service diesel generators, preventing full utilization of thrusters during the exercise. Other minor discrepancies did not impose any mission limitations. The success rate (90.9%) of pre-departure generators and associated auxiliary systems tests was satisfactory for the Organic Surge Fleet mission set.

**5.7. Bow and Stern Thrusters.** Bow and stern thruster operation while underway was evaluated on the 20 TA 19+ vessels equipped with bow or stern thrusters through operational tests as described in paragraph 3.H of Attachment 1. Results from the tests are presented in Appendix A, Table A-4. Sixteen of 20 vessels (80%) successfully completed the tests without any discrepancies noted. Four vessels (CAPE DUCATO, CAPE KENNEDY, CAPE RAY, CAPE WASHINGTON) received partial credit. Thrusters enable a vessel to moor without assistance from a tugboat. In peacetime, tugboats are generally available in every port; however, in a wartime scenario, tugboat support may not be readily available, requiring the use of bow/stern thrusters. The high rate of vessels (20%) that did not successfully complete the Bow and Stern Thruster test could lead to a higher requirement for tugboat assistance, potentially delaying offload of cargo and impacting buildup of combat power in theater. Recommend bow and stern thruster discrepancies be corrected as soon as practicable.

**5.8. Lube Oil and Fuel Oil Purification.** Lube oil and fuel oil purifier operation while underway was evaluated on the 32 TA 19+ vessels through observation of their status as described in paragraph 3.F of Attachment 1. Results from the tests are presented in Appendix A, Table A-4. In total, 31/32 vessels (96.9%) successfully completed the evaluation without any discrepancies noted. One vessel (MENDONCA) received partial credit; however, assessment of its lube and fuel pump operations suggests it would not affect a trans-oceanic mission. Therefore, the overall lube and fuel oil purifier failure rate (0%) is satisfactory for the Organic Surge Fleet mission set.

**5.9. Steering Gear and Alarms Systems.** Steering gear and alarms systems operation while underway were evaluated on the 32 TA 19+ vessels through steering gear and alarms systems tests as described in paragraph 3.I of Attachment 1. Results from the tests are presented in Appendix A, Table A-4. In total, 32/32 vessels (100%) successfully completed the evaluation without any discrepancies noted. The steering gear and alarms test success rate (100%) is satisfactory for the Organic Surge Fleet mission set.

**5.10. Distillers.** Distilling plant operation was evaluated on 31/32 of the TA 19+ vessels through Distilling Plant Operational tests as described in paragraph 3.E of Attachment 1. One vessel (CURTISS) did not perform a Distilling Plant Operational test due to concerns about water quality in the vicinity of the Tijuana River. Results from the tests are presented in Appendix A, Table A-4. In total, 22/31 vessels (70.9%) successfully completed the test; 6/31 vessels (19.4%) (CAPE KENNEDY, CAPE KNOX, CAPE RAY, GILLILAND, MENDONCA, OBREGON) received partial credit, and 3/31 vessels (9.7%) (CAPE TRINITY, CAPE RACE, CAPE TEXAS) failed. All vessels that received partial credit produced water at a quantity sufficient to execute a trans-oceanic mission.

A vessel distilling plant produces water for crew life support and habitability. The distilling plant also produces water for essential engineering plant functions such as turbine locomotion and as a cooling medium for marine machinery. According to MARAD, typical RRF steam ship freshwater consumption is 30 tons per day. All other RRF vessel freshwater consumption is 17 tons per day. Crew consumption accounts for approximately 3.3 tons per day. Limiting crew consumption of freshwater is the only mitigating measure while underway. The three vessels that failed the Distilling Plant Operational test experienced casualties that could not be repaired while underway during TA 19+. These vessels would likely be forced to return to port for repairs, or be required to take on water or replenish water stores to maintain essential engineering plant functions and cooling. The distilling plant failure rate (9.7%) will require mitigations and possibly delay planned force closure. Recommend testing and assessing the water distillation capabilities of the remainder of the Organic Surge Fleet and replace all inoperative equipment as soon as practical.

**5.11. Anchor Windlass.** Anchor windlass operation while underway was evaluated on the 32 TA 19+ vessels through anchor windlass underway tests as described in paragraph 3.D of Attachment 1. Results from the tests are presented in Appendix A, Table A-4. In total, 29/32 vessels (90.6%) successfully completed the test. Partial credit was given to one vessel (GILLILAND). Two vessels failed (CAPE DECISION, MENDONCA). One failure (CAPE DECISION) was due to a port anchor windlass motor/generator failing during the test. The other failure (MENDONCA) was due to excessive brake wear and misalignment on the starboard windlass. The anchor windlass underway test success rate (90.6%) is satisfactory for the Organic Surge Fleet mission set.

**5.12. Navigation Equipment.** Navigation system equipment operation while underway was evaluated on the 32 TA 19+ vessels through navigation system tests as described in paragraph 3.G of Attachment 1. Results from the tests are presented in Appendix A, Table A-4. In total, 25/32 vessels (78.1%) successfully completed the evaluation without any discrepancies noted. Seven vessels (ADM CALLAGHAN, CAPE DECISION, CAPE EDMONT, CAPE TEXAS, CAPE WRATH, FISHER, GILLILAND) received partial credit; however, none of the degradations observed would have prevented a trans-oceanic voyage or required compensation which would delay force closure. Therefore, the navigation system failure rate (0%) is satisfactory for the Organic Surge Fleet mission set.

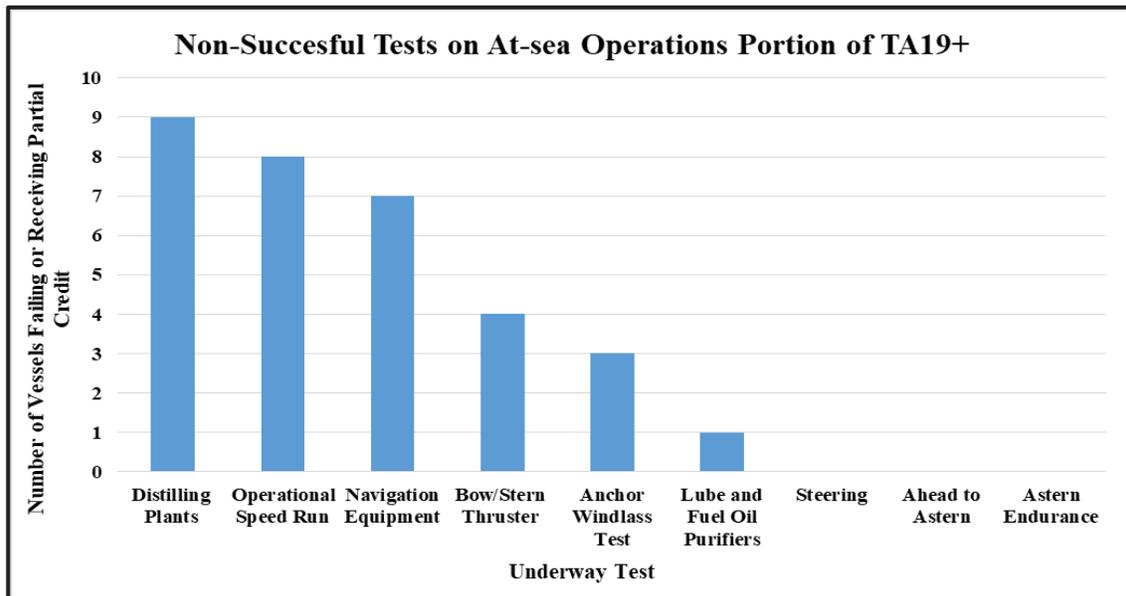


Figure 3: Non-Successful Tests on At-sea Operations Portion of TA 19+

**5.13. Mariner Sufficiency and Proficiency.** Mariner sufficiency and proficiency were evaluated through in-port ROS-to-FOS tests and during At-sea Operations as described in Sections 1, 2 and 3 of Attachment 1. Results of the in-port ROS-to-FOS tests are in Appendix A, Table A-5. Evaluation of the TA 19+ scorecards did not reveal any discrepancies or CASREPS directly tied to mariner proficiency. Each operating company demonstrated the ability to successfully crew their vessels according to the USCG Certificate of Inspection, which lists not only number of crew members required, but also type and minimum qualifications for each crewmember. This effort required the operating companies to muster an additional 683 mariners beyond the 333 mariners assigned to ROS crews for the vessels. Two vessels (CAPE DOUGLAS, CAPE KENNEDY) did not meet the DOD requirement for at least five crewmembers to have a current small arms certification.

Additionally, anonymous surveys of the activated ships' masters at the conclusion of TA 19+ supplemented the evaluation of mariner sufficiency and proficiency, asking general questions pertaining to mariner proficiency in terms of "level-of-confidence." Attachment 2 is a copy of the survey. The full set of anonymous survey responses from the 21 ships' masters are in Appendix D. Responses to the survey questions were generally positive. No ships' master rated *proficiency* of any of the four crew-categories (non-rated deck hands, rated deck officers, non-rated engineers, and rated engineers) with a low level of confidence. One ships' master elected not to identify his level of confidence in the proficiency of non-rated engineers due to an absence of interaction with them during TA 19+. Some ships' masters expressed concerns with the experience level of selected crew. Five of the ships' masters responded that their level of confidence in the *experience* of the rated deck officers was "low." Additional comments reflecting reduced confidence in experience include one ships' master citing Junior Deck Officers "sailing for the first time at the rating they were assigned," and another mentioning a 3rd Mate making their first trip on-license. Overall, the sufficiency and proficiency of the mariner fleet proved to be satisfactory for the Organic Surge Fleet mission set.

**5.14. DOD-Required Chemical Biological Radiological Defense (CBRD) Equipment and Force Protection Equipment.** Presence of DOD-required CBRD and force protection equipment was

evaluated on the 33 TA 19+ vessels through observation of presence aboard as described in paragraph 1.B.3 and 1.C.4 of Attachment 1. Results from the tests are presented in Appendix A, Table A-6. As a result of MARAD Policy Memorandum 03-02, *Management of Chemical, Biological, and Radiological Defense (CBR-D) Materials* (reference 7), 26 MARAD vessels did not have the DOD-required CBRD equipment aboard and 24 MARAD vessels did not have the DOD-required force protection equipment aboard for TA 19+, thus were not fully evaluated. The remaining seven vessels (6 MSC and 1 MARAD) had all required CBRD equipment aboard and the remaining 9 vessels (6 MSC and 3 MARAD) had all required Force Protection Equipment aboard. Recommend MARAD and MSC verify inventories of DOD-required CBRD and force protection equipment to determine if stores available in MARAD and MSC warehouses would meet requirements for a large-scale wartime activation of vessels.

**5.15. DOD-Required Government Services Administration (GSA) Approved Containers.** Presence of DOD-required GSA-approved security containers and GSA-approved weapons containers was evaluated on the 33 TA 19+ vessels through observation of their presence aboard as described in paragraph 1.C.6 and 1.C.7 of Attachment 1. Results from the tests are presented in Appendix A, Table A-6. All 33/33 vessels (100%) had a GSA-approved security container and a GSA-approved weapons storage container aboard. The high rate of DOD-required GSA-approved security containers and GSA-approved weapons containers (100%) is satisfactory for the Organic Surge Fleet mission set.

**5.16. Mission Essential Cargo Gear.** Mission essential cargo gear were tested on the 33 TA 19+ vessels during the In-port Procedures phase as described in paragraph 2.E of Attachment 1. Cargo was not loaded aboard the vessels during TA 19+, therefore the utility of the tests performed in predicting the mission performance of the cargo loading and handling gear is limited. Results from the tests are presented in Appendix A, Table A-3. The overall success rate was 23/33 vessels (66.6%). No MSC vessels received full credit on this evaluation. Ten vessels received partial credit (ADM CALLAGHAN, CAPE INSCRIPTION, CAPE TRINITY, GEM STATE, BENAVIDEZ, FISHER, GILLILAND, KOCAK, MENDONCA, OBREGON); however, none of the degradations observed would have prevented the utilization of the vessel for a large-scale delivery of combat power, nor would the observed degradations have required mitigation that would significantly delay force closure. The cargo handling gear represents the “main battery” for Organic Surge Fleet vessels and therefore must be operated under mission representative loads in order to validate readiness for a contingency. Recommend USTRANSCOM seek opportunities to collaborate with the services either in exercises or during actual mission loading and unloading evolutions to assure the readiness of the Organic Surge Fleet’s mission essential cargo gear.

**5.17. Habitability, Berthing and Linens, Pre-Departure, and Life Boat Drills Checklist.** Vessel habitability, berthing availability, pre-departure checklist completion, and lifeboat drill completion were evaluated on the 33 TA 19+ vessels during the In-port Procedures phase as described in paragraph 2.C, 2.D, 2.H, and 2.I of Attachment 1. Results are presented in Appendix A, Table A-3. All 33/33 vessels (100%) successfully completed the evaluations. The vessel habitability, berthing availability, pre-departure checklist completion, and lifeboat drill completion rate were satisfactory for the Organic Surge Fleet mission set.

**5.18. Secure Communications Equipment.** Secure voice and data equipment was tested on the 33 TA 19+ vessels during the In-port Procedures phase as described in paragraphs 2.F and 2.G of Attachment 1. Results are presented in Appendix A, Table A-3. In total, 27/33 vessels (81.8%) successfully

completed the secure data transmission test. Three vessels (CAPE DUCATO, CAPE RACE, GOPHER STATE) received partial credit and three vessels (CAPE TEXAS, CAPE TRINITY, CAPE WASHINGTON) failed the test. In total, 30/33 vessels (90.9%) successfully completed the secure voice operations test. The three vessels (CAPE TEXAS, CAPE TRINITY, CAPE WASHINGTON) that failed the secure voice operations test also failed the secure data test, resulting in 3/33 vessels (9.1%) having no electronic means of secure communications. One vessel (CAPE WASHINGTON) did not install secure communications equipment due to a shipping-and-receiving package handling error. Due to weather associated with Tropical Storm Imelda, the contracted technical representative was unable to effect installation of the equipment for the other two vessels (CAPE TEXAS, CAPE TRINITY). The *MARAD AFTER ACTION REPORT FOR TURBO ACTIVATION (TA) 19 PLUS* notes the difficulty experienced (during this exercise and previous exercises) with having a single contracted company responsible for providing technical support to the MARAD RRF and also notes a deficiency in the just-in-time delivery model associated with secure communications capabilities for the RRF. The rate of failure for secure communications (9.1%) will require mitigation (e.g., delayed departures or return to port for repairs) which may delay force closure in a large-scale deployment of combat power associated with existing OPLANS. Recommend a comprehensive review of policies regarding secure communications equipment apportionment to MARAD RRF vessels and a review of the utility of the contractor-sourced model for technical support.

**5.19. CASREP Generation.** CASREP generation rates were evaluated on the 33 TA 19+ vessels during the In-port Procedures phase and on 32 vessels during the At-sea Operations phase as described in paragraphs 5 and 7 of Attachment 1. Results are presented in Appendix A, Table A-7. During the In-port Procedures portion of the testing, 6/33 vessels (18.2%) (CAPE DECISION, CAPE DUCATO, CAPE WRATH, CAPE TRINITY, CAPE WASHINGTON, FISHER) experienced a condition which would have resulted in a C-3 CASREP. During the At-sea Operations phase, 6/32 vessels (18.8%) (CAPE DECISION, CAPE EDMONT, CAPE MOHICAN, CAPE TRINITY, GILLILAND, MENDONCA) experienced a condition which would have resulted in a C-3 CASREP. In totality, 22/32 vessels (68.8%) did not experience a condition which would have resulted in a C-3 or C-4 CASREP during the In-port Procedures phase or the At-sea Operations phase. Additionally, 3/32 vessels (9.4%) (CAPE MOHICAN, MENDONCA, FISHER) encountered discrepancies which resulted in or would have resulted in a C-4 CASREP, preventing mission accomplishment in accordance with planner developed timelines. The C-4 CASREP rate of 9.4% combined with the fact that 25% of the Organic Surge Fleet eligible for TA 19+ was in C-4 status at the start of the exercise negatively affects the Organic Surge Fleet's ability to accomplish force closure during a large-scale inter-theater force deployment. Recommend development and execution of a concerted readiness recovery program by MSC and MARAD to reduce the rate of C-4 casualties as soon as possible.

**5.20. Qualitative Mission Success Evaluation.** A qualitative mission success evaluation was performed on the 32 TA 19+ vessels which were activated and attempted the At-sea Operations Portion of the exercise. The evaluation was performed through examination of the TA 19+ scorecards (Appendix C). The purpose was to determine at the conclusion of the exercise, whether each of the vessels were suitable for mission tasking to support large scale OPLANS without mission impact (undue delay or significant mitigation). Results are presented in Appendix A, Table A-8. The evaluation revealed 23/32 vessels (71.9%) did not experience a mission impacting discrepancy during the exercise while 9 vessels (CAPE MOHICAN, CAPE RACE, CAPE TEXAS, CAPE TRINITY, CAPE WASHINGTON, BENAVIDEZ, FISHER, MENDONCA, OBREGON) had discrepancies which were assessed to potentially impact the mission. Of the 32 vessels, only 27 declared RFS within the 120-hour

requirement; and of these 27 vessels, only 21 did not have mission impacting discrepancies that would delay an immediate mission tasking. This resulted in a 21/27 (77.8%) vessel Qualitative Mission Success Rate. The repair period for vessels with mission limiting discrepancies was not estimated for this report, but would be a factor in overall sealift output. Three vessels' (CAPE TEXAS, CAPE TRINITY, CAPE WASHINGTON) complete absence of the ability to communicate securely (both voice and data) would delay their departure until functionality could be achieved as secure communications are integral to mission success. Distilling plant failures on three vessels (CAPE RACE, CAPE TRINITY, CAPE TEXAS) could not be repaired while underway and would require mitigation while on mission (e.g., returning to port for water or repairs), which would delay planned force closure. Two vessels (CAPE MOHICAN, MENDONCA) would require in port engine repairs before departing on a mission. Three vessels (BENAVIDEZ, FISHER, OBREGON) did not receive full credit on their Operational Speed Run and the speeds achieved would delay their delivery of cargo to a strategic port of debarkation. Two (BENAVIDEZ, FISHER) were the direct result of an engine casualty and one (OBREGON) was of an indeterminate nature. The required speed and average speed achieved for the three vessels (BENAVIDEZ, FISHER, OBREGON) whose Operational Speed Run performance would delay their delivery timelines are presented in Table 3. The relatively low (77.8%) Qualitative Mission Success Rate will challenge the immediate output of the Organic Surge Fleet in executing the initial voyages of a large-scale inter-theater force deployment without delays.

Vessel	Required Operational Speed Run Speed (Knots)	Average Speed Achieved on Operational Speed Run (Knots)
BENAVIDEZ	24	16.4
FISHER	24	18.0 <sup>1</sup>
OBREGON	20	16.8

NOTE: (1) Vessel was class limited to 18 knots due to sheared turbo charger foundation bolts

Table 3: Mission-Impacting Operational Speed Run Performance

**6. Mission Suitability.** The suitability of the Organic Surge Fleet to a conduct large scale inter-theater force deployment was evaluated during TA 19+ through examination of vessel C-status, In-port Procedures testing, At-sea Operations testing, qualitative analysis of vessel performance and post-exercise surveys from each ships' master. The observed high RFS Rate (paragraph 5.2) enables the fleet to respond quickly to a crisis situation without undue delay for administrative functions or known in-port propulsion issues. The high RFS rate was due in part to the high pre-departure main engine, shafting and associated auxiliary systems test success rate (paragraph 5.5); a high pre-departure vessel habitability, berthing and linens, pre-departure checklist, and life boat drills completion rate (paragraph 5.17); and a high rate of DOD-required GSA-approved security container and GSA-approved weapons containers presence (paragraph 5.15). While underway on mission, the low mission failure rate for mission essential navigation equipment (paragraph 5.12) helps ensure safe and timely arrival at the port of debarkation. The high rate of steering gear and alarm test success

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(paragraph 5.9) also helps ensure mission completion. The demonstrated ability to man a large portion of the Organic Surge Fleet with certified and proficient mariners (paragraph 5.13) helps ensure on-time departures of vessels and postures the fleet to respond to challenging unknowns while executing the mission. Notably, 25% of the vessels (including all of the tested LMSRs) did not successfully complete the Operational Speed Run test (paragraph 5.4) – a key element of “Propulsion System Dynamic Readiness” – which reduces the flexibility of a vessel to recover from voyage changes or delays in transit. In addition to the limitations posed by the Propulsion System Dynamic Readiness results, other TA tests revealed deficiencies requiring mitigation, delaying force closure, to include: 18.2% of vessels failed or received only partial credit for secure communications capabilities (paragraph 5.18) (to include 9.1% which failed both secure voice *and* secure data transmission tests), and 9.7% of vessels had a failure of the distilling plant test (paragraph 5.10). These factors were significant contributors to the relatively low (77.8%) Qualitative Mission Success Rate (paragraph 5.20).

In order to be immediately available for a large scale inter-theater force deployment, vessels in the Organic Surge Fleet must be ready for tasking (RFT Rate), they must be able to transition from ROS-to-FOS within prescribed timelines (RFS Rate), and they must be mission ready without undue delay or significant mitigation (Qualitative Mission Success Rate). The immediate availability of vessels for operational tasking is the cumulative effect of these three conditions; calculated by multiplying the RFT Rate (63.9%) and RFS Rate (81.8%) with the Qualitative Mission Success Rate (77.8%) to yield a Cumulative Fleet Success Rate of 40.7% (Table 4). Readiness goals aim for the Organic Surge fleet to have an 85% availability on any given day to support sealift requirements. The low Cumulative Fleet Success Rate (40.7%) suggests the Organic Surge Fleet is challenged to be immediately available for a large-scale inter-theater force deployment without delays/impacts to force closure due to degraded readiness. To assess the impact on force closure for a large-scale deployment, an analysis of the overall Organic Surge Fleet output over time is required and must include the recovery/fix rate for mission-limiting CASREPs, which was not addressed in TA 19+.

<b>Metric Name</b>	<b>Result</b>	<b>Calculation Explanation</b>
Ready for Tasking Rate	63.9%	(39) C-1, C-2, C-3 vessels divided by all (61) vessels
Ready for Sea Rate	81.8%	(27) turbo activated vessels which declared RFS w/in 120 hours divided by the (33) vessels which were turbo activated
Qualitative Mission Success Rate	77.8%	(21) vessels which declared RFS within 120 hours and were qualitatively assessed to be ready for mission tasking at the end of the exercise divided by the (27) vessels which declared RFS within 120 hours
Cumulative Fleet Success Rate	40.7%	RFT Rate multiplied by RFS Rate multiplied by Qualitative Mission Success Rate
TA 19+ Pass Rate	66.7%	(4) C-1 vessels plus the (28) C-2 and C-3 vessels achieving a TA score of 70% or better, divided by the C-1 to C-4 vessels polled or activated (48)

Table 4: Summary TA 19+ Metrics

## 7. Conclusions

- 7.1. The low RFT Rate (63.9%) leads to fewer ships available for immediate response to a contingency, which could delay force flow to a theater and the subsequent buildup of combat power. To compensate, USTRANSCOM would need to source additional ships from outside the Organic Surge Fleet to ensure the available capacity to meet force flow requirements (paragraph 5.1).
- 7.2. The Ready-for-Sea rate (81.8%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.2).
- 7.3. The low rate of TA 19+ success demonstrated by vessels in C-3 status (60%) will introduce risk of delayed force closure (and corresponding risk to mission) with increasing significance as the number of C-3 vessels utilized increases (paragraph 5.3).
- 7.4. The low Operational Speed Run Success Rate (0%) of the LMSRs means a significant component of the Organic Surge Fleet will not be able to utilize the full operational speed envelope. This will reduce the flexibility of the fleet to recover from voyage changes or delays in transit (paragraph 5.4).
- 7.5. The pre-departure engines, shafting, and associated auxiliaries test success rate (97%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.5).
- 7.6. The success rate (90.9%) of pre-departure generators and associated auxiliary systems tests is satisfactory for the Organic Surge Fleet mission set (paragraph 5.6).
- 7.7. The high rate of vessels (20%) that did not successfully complete the Bow and Stern Thruster test could lead to a higher requirement for tugboat assistance, potentially delaying offload of cargo and impact buildup of combat power in theater (paragraph 5.7).
- 7.8. The overall lube and fuel oil purifier failure rate (0%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.8).
- 7.9. The high steering gear and alarms systems test success rate (100%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.9).
- 7.10. The distilling plant failure rate (9.7%) will require mitigations and possibly delay planned force closure (paragraph 5.10).
- 7.11. The anchor windlass underway test success rate (90.6%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.11).
- 7.12. The navigation system failure rate (0%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.12).
- 7.13. The sufficiency and proficiency of the mariner pool proved to be satisfactory for the Organic Surge Fleet mission set (paragraph 5.13).
- 7.14. MSC vessel rate of presence (100%) of DOD-required CBRD and force protection equipment is satisfactory for the Organic Surge Fleet mission set. Due to policy restrictions, MARAD vessels were not fully evaluated in this area (paragraph 5.14).

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- 7.15.** The rate of presence of DOD-required GSA-approved security container and GSA-approved weapons containers (100%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.15).
- 7.16.** The vessel habitability, berthing availability, pre-departure checklist completion, and lifeboat drill completion rate (100%) is satisfactory for the Organic Surge Fleet mission set (paragraph 5.17).
- 7.17.** The rate of failure for secure communications (9.1%) will require mitigation (e.g., delayed departures or return to port for repairs) which may delay force closure in a large-scale deployment of combat power associated with existing OPLANS (paragraph 5.18).
- 7.18.** The C-4 CASREP rate (9.4%), when considered with the fact that 25% of the Organic Surge Fleet eligible for TA 19+ was in C-4 status at the start of the exercise, negatively affects the Organic Surge Fleet's ability to accomplish force closure during a large scale inter-theater force deployment (paragraph 5.19).
- 7.19.** The relatively low (77.8%) Qualitative Mission Success Rate will challenge the immediate output of the Organic Surge Fleet in executing the initial voyages of a large-scale inter-theater force deployment without delays (paragraph 5.20).
- 7.20.** The low Cumulative Fleet Success Rate (40.7%) suggests the Organic Surge Fleet is challenged to be immediately available for a large-scale inter-theater force deployment without delays/impacts to force closure due to degraded readiness. To assess the impact on force closure for a large-scale deployment, an analysis of the overall Organic Surge Fleet output over time is required and must include the recovery/fix rate for mission-limiting CASREPs, which was not addressed in TA 19+ (paragraph 6).

**8. Recommendations**

- 8.1.** Recommend MSC and MARAD develop and execute a concerted readiness recovery program to address the high rate of C-4 casualties (19.7%) as soon as possible (paragraph 5.1 and 5.19).
- 8.2.** Recommend further analysis of the impacts to large-scale Organic Surge Fleet operations caused by weather phenomenon within the Gulf Coast region (paragraph 5.2.).
- 8.3.** Recommend MSC and MARAD focus on addressing all C-3 casualties as soon as possible to reduce the risk to mission incurred by the Joint Force resulting from these casualties (paragraph 5.3).
- 8.4.** Recommend MSC investigate and correct all LMSR propulsion deficiencies as soon as possible (paragraph 5.4).
- 8.5.** Recommended MSC address all existing sheared turbo charger foundation bolt discrepancies as soon as possible (paragraph 5.5).
- 8.6.** Recommend bow and stern thruster discrepancies be corrected as soon as practicable (paragraph 5.7).
- 8.7.** Recommend testing and assessing the water distillation capabilities of the remainder of the Organic Surge Fleet, and replace all inoperative equipment as soon as practical (paragraph 5.10).
- 8.8.** Recommend MARAD and MSC verify inventories of DOD-required CBRD and force protection equipment to determine if stores available in MARAD and MSC warehouses would meet requirements for a large scale wartime activation of vessels (paragraph 5.14).
- 8.9.** Recommend USTRANSCOM seek opportunities to collaborate with the services during exercises or real world mission loading and unloading evolutions to assure the readiness of the Organic Surge Fleet's mission essential cargo gear (paragraph 5.16).
- 8.10.** Recommend a comprehensive review of the policies regarding secure communications apportionment to MARAD RRF vessels and a review of the utility of the contractor-sourced model for technical support (paragraph 5.18).

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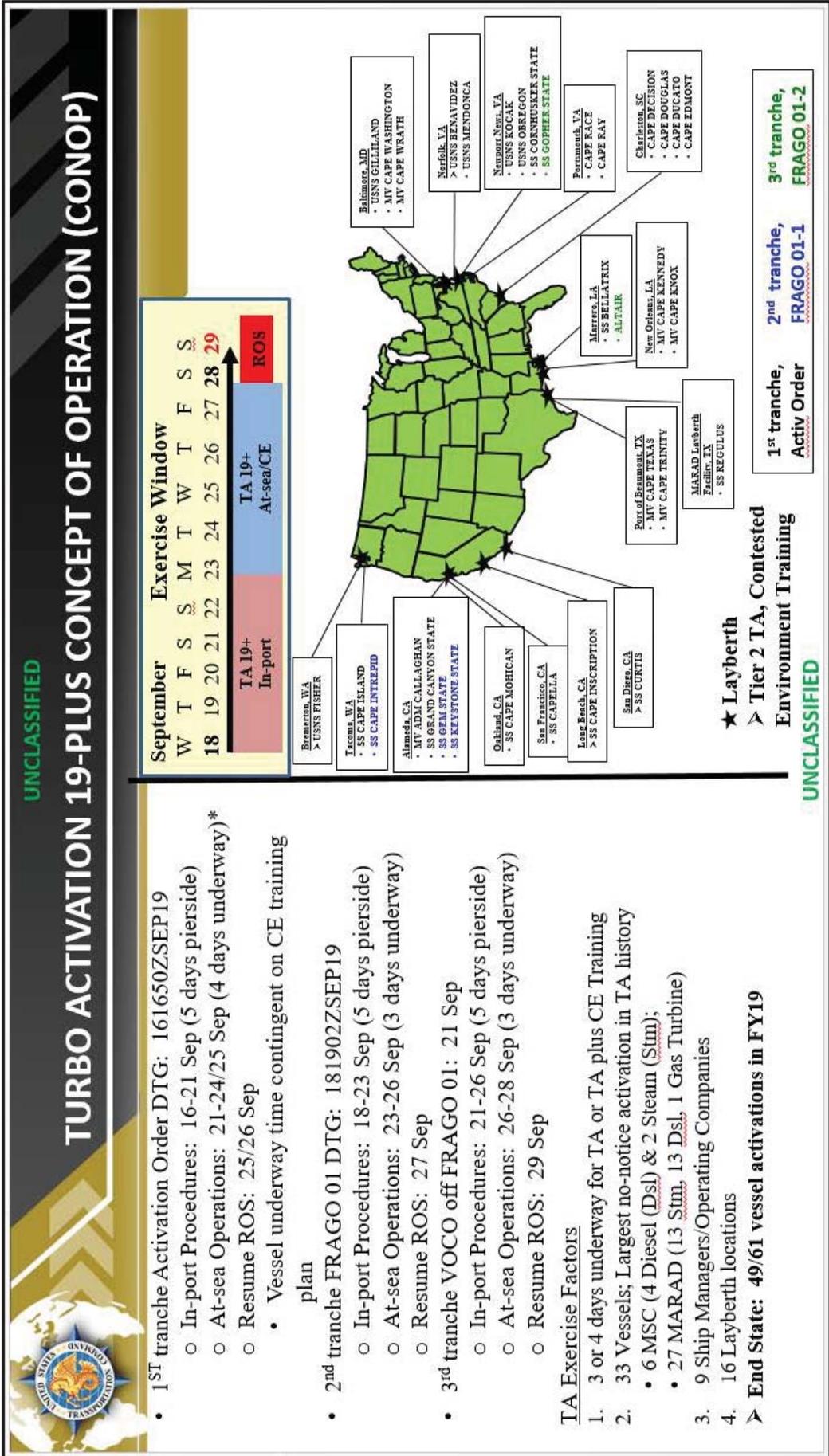


Figure A-1: TA 19+ Concept of Operations

## USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

Vessel Name	Vessel Type	Vessel Sub-Type	Military Useful Cargo Space (SQFT)	Propulsion Type	Vessel Age (Years)	Ship Manager	Lay Berth	C-Status at Activation <sup>(1)</sup>	Time to Declare Ready For Sea (Hours)	100% Success on Sea Trial <sup>(2)</sup>	TA Score	C4 CASREP Auto Fail <sup>(3)</sup>	TA Result <sup>(4)</sup>
ADMIRAL CALLAGHAN	RO/RO	RO/RO	141,843	Gas Turbine	52	MARAD	Alameda, CA	C-2	118.3	No	92	No	Pass
ALTAIR	RO/RO	FSS	199,362	Steam	46	MARAD	Marrero, LA	C-2	118.8	Yes	100	No	Pass
BELLATRIX	RO/RO	FSS	202,999	Steam	46	MARAD	Marrero, LA	C-2	116.1	Yes	100	No	Pass
CAPE DECISION	RO/RO	RO/RO	167,339	MS Diesel	46	MARAD	Charleston, SC	C-2	102.7	No	86	No	Pass
CAPE DOUGLAS	RO/RO	RO/RO	167,339	MS Diesel	46	MARAD	Charleston, SC	C-2	92.2	Yes	99	No	Pass
CAPE DUCATO	RO/RO	RO/RO	167,339	MS Diesel	47	MARAD	Charleston, SC	C-2	116.7	No	93	No	Pass
CAPE EDMONT	RO/RO	RO/RO	161,372	MS Diesel	48	MARAD	Charleston, SC	C-2	100.7	No	94	No	Pass
CAPE INSCRIPTION	RO/RO	RO/RO	148,665	Steam	43	MARAD	Long Beach, CA	C-2	115.4	Yes	98	No	Pass
CAPE INTREPID	RO/RO	RO/RO	148,665	Steam	43	MARAD	Tacoma, WA	C-2	115.8	Yes	100	No	Pass
CAPE ISLAND	RO/RO	RO/RO	148,665	Steam	42	MARAD	Tacoma, WA	C-2	115.7	Yes	100	No	Pass
CAPE KENNEDY	RO/RO	RO/RO	146,895	SS Diesel	40	MARAD	New Orleans, LA	C-2	114.7	No	94	No	Pass
CAPE KNOX	RO/RO	RO/RO	146,895	SS Diesel	41	MARAD	New Orleans, LA	C-2	115.7	No	98	No	Pass
CAPE MOHICAN	Special Capability	Heavy-Lift	0	Steam	46	MARAD	Oakland, CA	C-2	118.3	No	75	Yes	Fail
CAPE RACE	RO/RO	RO/RO	176,313	MS Diesel	42	MARAD	Portsmouth, VA	C-2	115.7	No	95	No	Pass
CAPE RAY	RO/RO	RO/RO	176,313	MS Diesel	42	MARAD	Portsmouth, VA	C-2	114.7	No	92	No	Pass
CAPE TEXAS	RO/RO	RO/RO	117,887	MS Diesel	42	MARAD	Beaumont, TX	C-2	186.5	No	84	No	Pass
CAPE TRINITY	RO/RO	RO/RO	117,887	MS Diesel	42	MARAD	Beaumont, TX	C-2	186.9	No	62	No	Fail
CAPE WASHINGTON	RO/RO	RO/RO	295,958	SS Diesel	37	MARAD	Baltimore, MD	C-2	102.7	No	88	No	Pass
CAPE WRATH	RO/RO	RO/RO	295,958	SS Diesel	37	MARAD	Baltimore, MD	C-2	116.0	No	94	No	Pass
KEYSTONE STATE	Special Capability	T-ACS	0	Steam	53	MARAD	Alameda, CA	C-2	112.1	Yes	100	No	Pass
SS CAPELLA	RO/RO	FSS	206,963	Steam	47	MARAD	San Francisco, CA	C-2	123.7	Yes	95	No	Pass
SS CORNHUSKER STATE	Special Capability	T-ACS	0	Steam	50	MARAD	Newport News, VA	C-2	116.7	Yes	99	No	Pass
SS CURTISS	Special Capability	T-AVB	0	Steam	50	MARAD	San Diego, CA	C-2	73.7	Yes	99	No	Pass
SS GEM STATE	Special Capability	T-ACS	0	Steam	53	MARAD	Alameda, CA	C-2	114.7	Yes	96	No	Pass
SS GOPHER STATE	Special Capability	T-ACS	0	Steam	46	MARAD	Newport News, VA	C-2	116.8	Yes	99	No	Pass

Table A-1: TA 19+ Performance and Selected Vessel Demographics

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USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

Vessel Name	Vessel Type	Vessel Sub-Type	Military Useful Cargo Space (SQFT)	Propulsion Type	Vessel Age (Years)	Ship Manager	Lay Berth	C-Status at Activation <sup>(1)</sup>	Time to Declare Ready For Sea (Hours)	100% Success on Sea Trial <sup>(2)</sup>	TA Score	C4 CASREP Auto Fail <sup>(3)</sup>	TA Result <sup>(4)</sup>
SS GRAND CANYON STATE	Special Capability	T-ACS	0	Steam	54	MARAD	Alameda, CA	C-2	118.7	Yes	100	No	Pass
USNS BENAVIDEZ	RO/RO	LMSR	387,662	MS Diesel	16	MSC	Norfolk, VA	C-3	106.0	No	73	No	Pass
USNS FISHER	RO/RO	LMSR	387,662	MS Diesel	20	MSC	Bremerton, WA	C-3	169.5	No	65	Yes	Fail
USNS GILLILAND	RO/RO	Conv LMSR	321,831	SS Diesel	47	MSC	Baltimore, MD	C-3	123.0	No	76	No	Pass
USNS KOCAK	RO/RO	ROCON	162,731	Steam	38	MSC	Newport News, VA	C-3	119.0	Yes	98	No	Pass
USNS MENDONCA	RO/RO	LMSR	387,662	MS Diesel	18	MSC	Norfolk, VA	C-3	115.4	No	67	Yes	Fail
USNS OBREGON	RO/RO	ROCON	162,731	Steam	34	MSC	Newport News, VA	C-2	96.3	No	88	No	Pass
REGULUS	RO/RO	FSS	202,999	Steam	46	MARAD	MLF, TX	C-2	121.4	Note (5)	Note (5)	No	Note (5)
ALGOL	RO/RO	FSS	202,999	Steam	46	MARAD	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
BOB HOPE	RO/RO	LMSR	387,662	MS Diesel	21	MSC	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
CAPE DIAMOND	RO/RO	RO/RO	167,339	MS Diesel	47	MARAD	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
CAPE DOMINGO	RO/RO	RO/RO	167,339	MS Diesel	46	MARAD	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
CAPE HENRY	RO/RO	RO/RO	180,478	SS Diesel	40	MARAD	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
FLICKERTAIL STATE	Special Capability	T-ACS	0	Steam	50	MARAD	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
GORDON	RO/RO	Conv LMSR	321,831	SS Diesel	47	MSC	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
PLESS	RO/RO	ROCON	162,731	Steam	36	MSC	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
POLLUX	RO/RO	FSS	199,362	Steam	46	MARAD	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
SHUGHART	RO/RO	Conv LMSR	302,087	SS Diesel	39	MSC	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
WHEAT	RO/RO	ROCON	232,247	Gas Turbine	32	MSC	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
YANO	RO/RO	Conv LMSR	302,087	SS Diesel	39	MSC	N/A	C-4	N/A	N/A	N/A	N/A	Fail - C4
CAPE HUDSON	RO/RO	RO/RO	180,478	SS Diesel	N/A	MARAD	N/A	C-1	N/A	N/A	N/A	N/A	Pass-C1
CAPE RISE	RO/RO	RO/RO	176,313	MS Diesel	N/A	MARAD	N/A	C-1	N/A	N/A	N/A	N/A	Pass-C1
PETERSBURG	Special Capability	OPDS	0	Steam	N/A	MARAD	N/A	C-1	N/A	N/A	N/A	N/A	Pass-C1
BRITTIN	RO/RO	LMSR	387,662	MS Diesel	N/A	MSC	N/A	C-1	N/A	N/A	N/A	N/A	Pass-C1
ANTARES	RO/RO	FSS	199,362	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
CAPE HORN	RO/RO	RO/RO	180,478	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A

Table A-1: TA 19+ Performance and Selected Vessel Demographics

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USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

Vessel Name	Vessel Type	Vessel Sub-Type	Military Useful Cargo Space (SQFT)	Propulsion Type	Vessel Age (Years)	Ship Manager	Lay Berth	C-Status at Activation <sup>(1)</sup>	Time to Declare Ready For Sea (Hours)	100% Success on Sea Trial <sup>(2)</sup>	TA Score	C4 CASREP Auto Fail <sup>(3)</sup>	TA Result <sup>(4)</sup>
CAPE ISABEL	RO/RO	RO/RO	148,665	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
CAPE MAY	Special Capability	Heavy-Lift	0	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
CAPE ORLANDO	RO/RO	RO/RO	118,780	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
CAPE TAYLOR	RO/RO	RO/RO	115,619	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
CAPE VICTORY	RO/RO	RO/RO	131,265	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
CAPE VINCENT	RO/RO	RO/RO	131,265	N/A	N/A	MARAD	N/A	C-5	N/A	N/A	N/A	N/A	N/A
MARTIN	RO/RO	ROCON	203,173	N/A	N/A	MSC	N/A	C-5	N/A	N/A	N/A	N/A	N/A
WATKINS	RO/RO	LMSR	392,615	N/A	N/A	MSC	N/A	C-5	N/A	N/A	N/A	N/A	N/A
DENOBOLA	RO/RO	FSS	206,963	N/A	N/A	MARAD	N/A	C-2	N/A	N/A	N/A	N/A	Note(6)
WRIGHT	Special Capability	T-AVB	0	N/A	N/A	MARAD	N/A	C-2	N/A	N/A	N/A	N/A	Note(6)

NOTES: (1) As defined in reference 1. C-1 no mission degrading deficiencies exist or vessel is currently on mission. C-2 a deficiency exists in mission equipment that causes a minor degradation in any primary mission, or a major degradation or total loss of a secondary system. C-3 a deficiency exists in mission essential equipment that causes a major degradation but not the loss of a primary mission. C-4 a deficiency exists in mission essential equipment that causes a loss of at least one primary mission. C-5 scheduled major maintenance action in progress. Ship is not prepared for mission.

(2) Sea Trail composed of tests in Attachment 1, section 3, section 4.B, section 5.B, and section 7.

(3) As defined in Attachment 1, section 7.

(4) As defined in reference 1. C-5 vessels were recorded as “Unavailable-Maintenance;” and did not receive a pass/fail grade. C-4 vessels were recorded as “Unsuccessful-Maintenance and were considered to have failed the TA. C-1 vessels (those undergoing a mission) were recorded as “Successful-Mission Operation” and were considered to have passed. Turbo Activated vessels were categorized as passed if they achieved a TA score of 70 or better and did not incur a C-4 CASREP as detailed in reference 1 paragraph 7.

(5) Vessel did not perform At-sea Operations portion of TA 19+ due to safety concerns involving air clearance beneath the MLK Bridge in Port Arthur, TX, combined with an exercise funding constraint.

(6) Vessel was available for activation, but did not participate in TA 19+ due to funding limits.

Table A-1: TA 19+ Performance and Selected Vessel Demographics

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USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

<b>Vessel Name</b>	<b>Operational Speed Run Test Result</b>	<b>Ahead to Astern Test Result</b>	<b>Astern Endurance Test Result</b>
ADMIRAL CALLAGHAN	Partial	Success	Success
ALTAIR	Success	Success	Success
BELLATRIX	Success	Success	Success
CAPE DECISION	Success	Success	Success
CAPE DOUGLAS	Success	Success	Success
CAPE DUCATO	Success	Success	Success
CAPE EDMONT	Success	Success	Success
CAPE INSCRIPTION	Success	Success	Success
CAPE INTREPID	Success	Success	Success
CAPE ISLAND	Success	Success	Success
CAPE KENNEDY	Success	Success	Success
CAPE KNOX	Success	Success	Success
CAPE MOHICAN	Fail	Success	Success
CAPE RACE	Success	Success	Success
CAPE RAY	Success	Success	Success
CAPE TEXAS	Success	Success	Success
CAPE TRINITY	Partial	Success	Success
CAPE WASHINGTON	Success	Success	Success
CAPE WRATH	Success	Success	Success
KEYSTONE STATE	Success	Success	Success
SS CAPELLA	Success	Success	Success
SS CORNHUSKER STATE	Success	Success	Success
SS CURTISS	Success	Success	Success
SS GEM STATE	Success	Success	Success
SS GOPHER STATE	Success	Success	Success
SS GRAND CANYON STATE	Success	Success	Success
USNS BENAVIDEZ	Fail	Success	Success
USNS FISHER	Fail	Success	Success
USNS GILLILAND	Partial	Success	Success
USNS KOCAK	Success	Success	Success
USNS MENDONCA	Fail	Success	Success
USNS OBREGON	Partial	Success	Success

Table A-2: Dynamic Propulsion Test Results

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USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

Vessel Name	Generators and Electrical Systems Test	Engines, Shafting, and Associated Auxiliaries Test	Habitability Inspection	Berthing and Linens Inspection	Mission Essential Cargo Gear Test	Secure Data Equipment Test	Secure Voice Equipment Test	Pre-Departure Checklist Completed	Life Boat Drills Completed
ADMIRAL CALLAGHAN	Success	Success	Success	Success	Partial	Success	Success	Success	Success
ALTAIR	Success	Success	Success	Success	Success	Success	Success	Success	Success
BELLATRIX	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE DECISION	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE DOUGLAS	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE DUCATO	Success	Success	Success	Success	Success	Partial	Success	Success	Success
CAPE EDMONT	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE INSCRIPTION	Success	Success	Success	Success	Partial	Success	Success	Success	Success
CAPE INTREPID	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE ISLAND	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE KENNEDY	Partial	Success	Success	Success	Success	Success	Success	Success	Success
CAPE KNOX	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE MOHICAN	Success	Success	Success	Success	Success	Success	Success	Success	Success
CAPE RACE	Success	Success	Success	Success	Success	Partial	Success	Success	Success
CAPE RAY	Partial	Success	Success	Success	Success	Success	Success	Success	Success
CAPE TEXAS	Success	Success	Success	Success	Success	Fail	Fail	Success	Success
CAPE TRINITY	Success	Success	Success	Success	Partial	Fail	Fail	Success	Success
CAPE WASHINGTON	Success	Success	Success	Success	Success	Fail	Fail	Success	Success
CAPE WRATH	Success	Success	Success	Success	Success	Success	Success	Success	Success
KEYSTONE STATE	Success	Success	Success	Success	Success	Success	Success	Success	Success
SS CAPELLA	Success	Success	Success	Success	Success	Success	Success	Success	Success
SS CORNHUSKER STATE	Success	Success	Success	Success	Success	Success	Success	Success	Success
SS CURTISS	Success	Success	Success	Success	Success	Success	Success	Success	Success
SS GEM STATE	Partial	Success	Success	Success	Partial	Success	Success	Success	Success

Table A-3: In-port Procedures Test Results

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USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

Vessel Name	Generators and Electrical Systems Test	Engines, Shafting, and Associated Auxiliaries Test	Habitability Inspection	Berthing and Linens Inspection	Mission Essential Cargo Gear Test	Secure Data Equipment Test	Secure Voice Equipment Test	Pre-Departure Checklist Completed	Life Boat Drills Completed
SS GOPHER STATE	Success	Success	Success	Success	Success	Partial	Success	Success	Success
SS GRAND CANYON STATE	Success	Success	Success	Success	Success	Success	Success	Success	Success
USNS BENAVIDEZ	Success	Success	Success	Success	Partial	Success	Success	Success	Success
USNS FISHER	Success	Fail	Success	Success	Partial	Success	Success	Success	Success
USNS GILLILAND	Success	Success	Success	Success	Partial	Success	Success	Success	Success
USNS KOCAK	Success	Success	Success	Success	Partial	Success	Success	Success	Success
USNS MENDONCA	Success	Success	Success	Success	Partial	Success	Success	Success	Success
USNS OBREGON	Success	Success	Success	Success	Partial	Success	Success	Success	Success
REGULUS	Success	Success	Success	Success	Success	Success	Success	Success	Success

Table A-3: In-port Procedures Test Results

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Vessel Name	Anchor Windlass Test Result	Distilling Plant Test Result	Fuel/Lube Oil Purifier Operations Result	Navigation Equipment Test Result	Bow Stern Thrusters Test Result	Steering Gear and Alarm Test Result
ADMIRAL CALLAGHAN	Success	Success	Success	Partial	N/A	Success
ALTAIR	Success	Success	Success	Success	N/A	Success
BELLATRIX	Success	Success	Success	Success	N/A	Success
CAPE DECISION	Fail	Success	Success	Partial	Success	Success
CAPE DOUGLAS	Success	Success	Success	Success	Success	Success
CAPE DUCATO	Success	Success	Success	Success	Partial	Success
CAPE EDMONT	Success	Success	Success	Partial	Success	Success
CAPE INSCRIPTION	Success	Success	Success	Success	Success	Success
CAPE INTREPID	Success	Success	Success	Success	Success	Success
CAPE ISLAND	Success	Success	Success	Success	N/A	Success
CAPE KENNEDY	Success	Partial	Success	Success	Partial	Success
CAPE KNOX	Success	Partial	Success	Success	Success	Success
CAPE MOHICAN	Success	Success	Success	Success	N/A	Success
CAPE RACE	Success	Fail	Success	Success	Success	Success
CAPE RAY	Success	Partial	Success	Success	Partial	Success
CAPE TEXAS	Success	Fail	Success	Partial	Success	Success
CAPE TRINITY	Success	Fail	Success	Success	Success	Success
CAPE WASHINGTON	Success	Success	Success	Success	Partial	Success
CAPE WRATH	Success	Success	Success	Partial	Success	Success
KEYSTONE STATE	Success	Success	Success	Success	N/A	Success
SS CAPELLA	Success	Success	Success	Success	N/A	Success
SS CORNHUSKER STATE	Success	Success	Success	Success	N/A	Success
SS CURTISS	Success	Note (1)	Success	Success	N/A	Success
SS GEM STATE	Success	Success	Success	Success	N/A	Success
SS GOPHER STATE	Success	Success	Success	Success	N/A	Success
SS GRAND CANYON STATE	Success	Success	Success	Success	N/A	Success
USNS BENAVIDEZ	Success	Success	Success	Success	Success	Success
USNS FISHER	Success	Success	Success	Partial	Success	Success
USNS GILLILAND	Partial	Partial	Success	Partial	Success	Success
USNS KOCAK	Success	Success	Success	Success	Success	Success
USNS MENDONCA	Fail	Partial	Partial	Success	Success	Success
USNS OBREGON	Success	Partial	Success	Success	Success	Success
Note (1): Test not performed due to contamination concerns near Tijuana River						

Table A-4: At-sea Operations Test Results

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Vessel Name	Fully Manned Crew	All Crew CBRD Trained	Trained CBRD Officer Aboard	Trained Anti-Terrorism Officer Aboard	All Crew Anti-Terrorism LVL 1 Trained	Five Crew Small Arms Certified	Two Crew with SECRET Clearance
ADMIRAL CALLAGHAN	Success	Success	Success	Success	Success	Success	Success
ALTAIR	Success	Success	Success	Success	Success	Success	Success
BELLATRIX	Success	Success	Success	Success	Success	Success	Success
CAPE DECISION	Success	Success	Success	Success	Success	Success	Success
CAPE DOUGLAS	Success	Success	Success	Success	Success	Fail	Success
CAPE DUCATO	Success	Success	Success	Success	Success	Success	Success
CAPE EDMONT	Success	Success	Success	Success	Success	Success	Success
CAPE INSCRIPTION	Success	Success	Success	Success	Success	Success	Success
CAPE INTREPID	Success	Success	Success	Success	Success	Success	Success
CAPE ISLAND	Success	Success	Success	Success	Success	Success	Success
CAPE KENNEDY	Success	Success	Success	Success	Success	Fail	Success
CAPE KNOX	Success	Success	Success	Success	Success	Success	Success
CAPE MOHICAN	Success	Success	Success	Success	Success	Success	Success
CAPE RACE	Success	Success	Success	Success	Success	Success	Success
CAPE RAY	Success	Success	Success	Success	Success	Success	Success
CAPE TEXAS	Success	Success	Success	Success	Success	Success	Success
CAPE TRINITY	Success	Success	Success	Success	Success	Success	Success
CAPE WASHINGTON	Success	Success	Success	Success	Success	Success	Success
CAPE WRATH	Success	Success	Success	Success	Success	Success	Success
KEYSTONE STATE	Success	Success	Success	Success	Success	Success	Success
SS CAPELLA	Success	Success	Success	Success	Success	Success	Success
SS CORNHUSKER STATE	Success	Fail	Success	Success	Success	Success	Success
SS CURTISS	Success	Fail	Success	Success	Success	Success	Success
SS GEM STATE	Success	Success	Success	Success	Success	Success	Success
SS GOPHER STATE	Success	Success	Success	Success	Success	Success	Success

Table A-5: In-port ROS to FOS Manning Inspection Results

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USTRANSCOM Comprehensive Report for TURBO ACTIVATION 19-PLUS – APPENDIX A – TABLES AND FIGURES

<b>Vessel Name</b>	<b>Fully Manned Crew</b>	<b>All Crew CBRD Trained</b>	<b>Trained CBRD Officer Aboard</b>	<b>Trained Anti-Terrorism Officer Aboard</b>	<b>All Crew Anti-Terrorism LVL 1 Trained</b>	<b>Five Crew Small Arms Certified</b>	<b>Two Crew with SECRET Clearance</b>
SS GRAND CANYON STATE	Success	Success	Success	Success	Success	Success	Success
USNS BENAVIDEZ	Success	Success	Success	Success	Success	Success	Success
USNS FISHER	Success	Success	Success	Success	Success	Success	Success
USNS GILLILAND	Success	Success	Success	Success	Success	Success	Success
USNS KOCAK	Success	Success	Success	Success	Success	Success	Success
USNS MENDONCA	Success	Success	Success	Success	Success	Success	Success
USNS OBREGON	Success	Success	Success	Success	Success	Success	Success
REGULUS	Success	Success	Success	Success	Success	Success	Success

Table A-5: In-port ROS to FOS Manning Inspection Results

**UNCLASSIFIED**

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<b>Vessel Name</b>	<b>All CBRD GFE Aboard</b>	<b>All Force Protection GFE Aboard</b>	<b>GSA Security Container Aboard</b>	<b>GSA Weapons Storage Container Aboard</b>
ADMIRAL CALLAGHAN	Success	Note (2)	Success	Success
ALTAIR	Note (1)	Note (2)	Success	Success
BELLATRIX	Note (1)	Note (2)	Success	Success
CAPE DECISION	Note (1)	Note (2)	Success	Success
CAPE DOUGLAS	Note (1)	Note (2)	Success	Success
CAPE DUCATO	Note (1)	Note (2)	Success	Success
CAPE EDMONT	Note (1)	Note (2)	Success	Success
CAPE INSCRIPTION	Note (1)	Note (2)	Success	Success
CAPE INTREPID	Note (1)	Note (2)	Success	Success
CAPE ISLAND	Note (1)	Note (2)	Success	Success
CAPE KENNEDY	Note (1)	Note (2)	Success	Success
CAPE KNOX	Note (1)	Note (2)	Success	Success
CAPE MOHICAN	Note (1)	Note (2)	Success	Success
CAPE RACE	Note (1)	Success	Success	Success
CAPE RAY	Note (1)	Note (2)	Success	Success
CAPE TEXAS	Note (1)	Note (2)	Success	Success
CAPE TRINITY	Note (1)	Note (2)	Success	Success
CAPE WASHINGTON	Note (1)	Note (2)	Success	Success
CAPE WRATH	Note (1)	Success	Success	Success
KEYSTONE STATE	Note (1)	Note (2)	Success	Success
SS CAPELLA	Note (1)	Note (2)	Success	Success
SS CORNHUSKER STATE	Note (1)	Note (2)	Success	Success
SS CURTISS	Note (1)	Success	Success	Success
SS GEM STATE	Note (1)	Note (2)	Success	Success
SS GOPHER STATE	Note (1)	Note (2)	Success	Success
SS GRAND CANYON STATE	Note (1)	Note (2)	Success	Success
USNS BENAVIDEZ	Success	Success	Success	Success
USNS FISHER	Success	Success	Success	Success
USNS GILLILAND	Success	Success	Success	Success
USNS KOCAK	Success	Success	Success	Success
USNS MENDONCA	Success	Success	Success	Success
USNS OBREGON	Success	Success	Success	Success
REGULUS	Note (1)	Note (2)	Success	Success
NOTES: (1) MARAD policy does not allow for furnishing of CBRD equipment to this vessel for Turbo Activations				
(2) MARAD policy does not allow for furnishing of force protection equipment to this vessel for Turbo Activations				

Table A-6: DOD Required Equipment Inspection Results

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Vessel Name	No In-Port C-3 CASREPS	No At-Sea C-3 CASREPS	No C-4 CASREPS
ADMIRAL CALLAGHAN	Success	Success	Success
ALTAIR	Success	Success	Success
BELLATRIX	Success	Success	Success
CAPE DECISION	Fail	Fail	Success
CAPE DOUGLAS	Success	Success	Success
CAPE DUCATO	Fail	Success	Success
CAPE EDMONT	Success	Fail	Success
CAPE INSCRIPTION	Success	Success	Success
CAPE INTREPID	Success	Success	Success
CAPE ISLAND	Success	Success	Success
CAPE KENNEDY	Success	Success	Success
CAPE KNOX	Success	Success	Success
CAPE MOHICAN	Success	Fail	Fail
CAPE RACE	Success	Success	Success
CAPE RAY	Success	Success	Success
CAPE TEXAS	Success	Success	Success
CAPE TRINITY	Fail	Fail	Success
CAPE WASHINGTON	Fail	Success	Success
CAPE WRATH	Fail	Success	Success
KEYSTONE STATE	Success	Success	Success
SS CAPELLA	Success	Success	Success
SS CORNHUSKER STATE	Success	Success	Success
SS CURTISS	Success	Success	Success
SS GEM STATE	Success	Success	Success
SS GOPHER STATE	Success	Success	Success
SS GRAND CANYON STATE	Success	Success	Success
USNS BENAVIDEZ	Success	Success	Success
USNS FISHER	Fail	Success	Fail
USNS GILLILAND	Success	Fail	Success
USNS KOCAK	Success	Success	Success
USNS MENDONCA	Success	Fail	Fail <sup>(1)</sup>
USNS OBREGON	Success	Success	Success
REGULUS	Success	N/A	Success

NOTE: (1) Vessel did not report a C-4 CASREP; however, severity of the discrepancy was sufficient to qualify as a C-4

Table A-7: CASREP Evaluation Performance

**UNCLASSIFIED**