16 February 1968

Materiel Test Procedure 2-3-520
General Equipment Test Activity

U. S. ARMY TEST AND EVALUATION COMMAND
COMMON SERVICE TEST PROCEDURE

LOGISTICS-OVER-THE-SHORE (LOTS) (VEHICLES)

1. OBJECTIVE

The objective of this materiel test procedure is to provide testing methods and techniques to evaluate the conformance to requirements of the test item, with respect to Logistics-Over-The-Shore characteristics, as set forth in QMR's, SDR's, TC's, MC's, and other established criteria and to determine the suitability of the test item and its associated equipment to satisfy its mission requirements.

2. BACKGROUND

The U. S. Army continually investigates advances made in equipment and methods in Over-The-Shore transportation to assure procuring the most modern, efficient, and reliable equipment available.

A Logistics-Over-The-Shore (LOTS) operation is the movement of cargo and personnel over the shore between ocean transportation and shoreside facilities. This includes:

a. Unloading cargo and personnel from ships into landing craft and/or amphibians.
b. Moving cargo and personnel by landing craft and/or amphibians from ship to shore.
c. Unloading landing craft at beaches.
d. Towing equipment with a floating capability from off shore through the surf and over the shore.
e. Fording material through the surf from landing craft to the shore.
f. Unloading amphibians at transfer points.
g. Moving cargo from landing craft to temporary storage and/or segregation areas or to destination.
h. Unloading at storage areas or transfer points.

LOTS testing invariably is conducted as part of a surface transportability evaluation of the test item which also includes Surface Transportability (Vehicles) (MTP 2-3-519), Cargo Loading Adaptability (MTP 2-3-526) and Line Haul Operation (MTP 2-3-518).

3. REQUIRED EQUIPMENT

One or more of the following items and facilities may be required to obtain data during the various phases of LOTS testing:

a. Tape Measure, Steel, 50-foot.
b. Inclinometer.

c. Soils Trafficability Kit.
d. Vehicle Fuel, oils, greases, etc.
e. Test Loads.
f. Watercraft (oceangoing).
g. Military Cargo Carriers.
h. Landing Craft.
i. Wave Height Measuring Device.
j. Life Jackets and other Personal Safety Items (foul weather clothing, helmets, gloves, etc.)
k. An accompanying Amphibian or Other Craft.
l. Materials Handling Equipment (MHE).
m. Appropriate Beach Sites and Anchorage Areas.
n. Channel Markers.
o. Communication Equipment.
p. Night Beach Lighting Sets.
q. Motion Picture Camera and Film.
r. Still Camera and Film.

4. REFERENCES

A. AMCR 385-1 Safety Responsibilities.
B. AMCR 385-12 Verification of Safety of Materiel from Development Through Testing and Supply Disposition.
C. AR 70-10 Army Materiel Testing.
D. AR 705-5 Army Research and Development.
E. AR 705-8 Department of Defense Engineering for Transportability Program.
F. AR 705-2300-8 Water Crossing Requirements for Future Combat and Tactical Vehicles.
G. AR 750-1 Maintenance of Supplies and Equipment: Maintenance Concepts.
H. AR 750-6 Maintenance Support Planning.
I. USATECOM Reg. 385-7 Safety Confirmation.
J. USATECOM Reg. 705-4 Equipment Performance Report.
K. USATECOM Reg. 750-15 Maintenance of Supplies and Equipment: Maintenance Portion of the Service Test.
L. FM 55-15 DA Field Manual Transportation Reference Data.
M. MTP 2-3-500 Preoperational Inspection and Physical Characteristics.
N. MTP 2-3-501 Safety Hazards.
O. MTP 2-3-502 Maintenance.
P. MTP 2-3-516 Human Factors Engineering.
Q. MTP 2-3-524 Personnel Training.
R. MTP 2-3-518 Line Haul Operation.
S. MTP 2-3-519 Surface Transportability (Vehicles).
T. MTP 2-3-526 Cargo Loading Adaptability.

5. SCOPE

5.1 SUMMARY

This MTP describes the following tests conducted to evaluate test items undergoing Logistics-Over-The-Shore:

a. Pre-Operational Inspection - An evaluation of the completeness of the test item, and whether it is in satisfactory operating condition prior to conducting the test.

b. Operational Performance - An evaluation of the following types of vehicles to determine whether they meet the operational capabilities required to satisfy Logistics-Over-The-Shore mission requirements:

1) Non-Swimmers - With and without fording kits
2) Swimmers and Floaters - Equipped with swimming kits
3) Amphibians

c. Maintenance Evaluation - A study to determine the maintenance required during Logistics-Over-The-Shore.

d. Human Factors Evaluation - A study to determine the degree of ease, simplicity and effort in performing Logistics-Over-The-Shore.

e. Safety Hazards - A study to determine the inherent and mission task hazards, and the ways of overcoming these hazards.

f. Value Analysis - A study to determine if the test item has any unnecessary features.

5.2 LIMITATIONS

This procedure is limited to vehicle LOTS operations. LOTS operations for all other equipment is described in MTP 10-3-510.

6. PROCEDURES

6.1 PREPARATION FOR TEST

6.1.1 Scheduling

6.1.1.1 Personnel

a. Ensure the presence of service personnel who have been trained using the criteria of MTP 2-3-524 and are cognizant of the operation and maintenance of the test equipment.

b. Record the following for service personnel

1) Rank
2) MOS number
3) Time spent in training
4) Experience in MOS

6.1.1.2 Cargo and Equipment

Ensure the availability of mechanical handling equipment (MHE) at both the loading and unloading site(s) for handling palletized and heavy cargo.

NOTE: MHE shall be operated only by qualified personnel.

6.1.2 Physical Characteristics

Determine the physical characteristics of the test item as described in the applicable sections of MTP 2-3-500.

6.1.3 Pre-Operational Inspection

The test item shall be subject to the pre-operational inspection of MTP 2-3-500 including the following:

NOTE: During the conduct of paragraphs 6.1.3.1 through 6.1.3.3, all damages, shortages, or deficiencies shall be recorded in the test item's Logbook and Equipment Performance Reports shall be submitted as applicable.

6.1.3.1 Inventory Check

The test item shall be inventoried against the Basic Issue List Item (BILI) to ensure the receipt of all major components and associated tools, parts and equipment and all water safety equipment. Record any discrepancies.

6.1.3.2 Technical Inspection

a. The test item shall be examined and operated to ensure the following:

1) Lubrication and oil levels are in accordance with specifications and are free of water.
2) The differential is free of water.
3) All indicating devices are operating properly.
4) All electrically operated devices are operating properly.
5) All mechanical and hydraulic systems are operating properly.
6) Tire pressures meet specifications.
7) The fire extinguisher is operating properly.
8) The bilge pumps are operating properly.
9) The swimming or fording kits, if provided, are free of defects or deficiencies.

b. Record any repairs required, adjustments made, or oil/lubrication changes made.

6.1.3.3 Water Tightness

a. Immerse the test item into calm water of sufficient depth to determine the presence of water, through leakage or moisture absorption, in the following:

1) Fuel Tanks
2) Oil sumps
3) Driving gear box
4) Differential
5) Wheel ends
6) Hull compartments
7) Hull plugs or valves
8) Other underwater components

b. Record the presence of water or moisture in any of the areas of step a.

6.2 TEST CONDUCT

The ability of the various types of vehicles to be successfully employed in logistics-over-the-shore missions, within their capabilities, using service personnel of the various organizations and/or units, shall be determined during the conduct of paragraph 6.2.1 through 6.2.4 under the following conditions and considerations.

a. The environmental and terrain conditions listed constitute real test conditions. The personnel performing the test should attempt to conduct the procedures in conditions approximating the specified conditions as closely as possible.

NOTE: Performance of the test procedures under conditions other than those stipulated will not invalidate the conduct of this materiel test procedure.

b. The test item will be left exposed to a salt-laden atmosphere, in the vicinity of the beach, at all times, protected only to the degree prescribed by the applicable manual(s) or the test plan. During the entire test program, or for designated intervals stipulated in the test plan, the test item will not be washed or cleaned.

c. The test item's Daily Log shall contain a record of all terrain conditions (mud, snow, sand, etc.) encountered during the test, the successful/unsuccessful completion of an operation, and effects of environment.

6.2.1 Operational Performance of Non-Swimmers

NOTE: 1. The non-swimmer category consists of those vehicles that travel with their suspension in contact with the ground and normally have an inherent capability of fording in depths between 20 and 42 inches . (Refer to QMR for actual limits.) Fording depth includes water depth, surf height, and sinkage of wheels or suspension.

2. If the item does not have inherent fordability it will have a fording kit which consists of breathing, exhaust, and ignition apparatus which permits it to ford in depths to specified limits. Some kits have an

automatic engine-cooling fan shut-off. A vehicle categorized as a "Floater" is considered a non-swimmer. However, since it does not negotiate water without contacting the bottom, it is provided for in paragraph 6.2.2.

3. The procedures of paragraphs 6.2.1.1 through 6.2.1.2 shall be performed with a minimum of wind and calm seas.

6.2.1.1 Without Fording Kits

6.2.1.1.1 Unloading Operations - Determine the ability of the test item to be unloaded from the applicable landing craft as follows:

a. Transport unloaded test item(s) in landing craft, to a cargo ship or an AKA anchored offshore.

b. Unload the landing craft, using the ship's hoisting gear and record the following:

NOTE: Capacity of the ship's hoisting gear, including slings, will be cleared with the ship's operation officer to assure that the gear is of the appropriate capacity.

1) Wave height
2) Wind direction and speed
3) Type of landing craft
4) Type of transport
5) Number of personnel required
6) Equipment used
7) Adequacy of the lifting eyes of the vehicle (when applicable)
8) Stability of the vehicle while slinging (when applicable)
9) Difficulties encountered

a) Preparing the test item for unloading
b) Unloading

10) Time required to:

a) Prepare the test item for unloading
b) Land the test item on the transport
c) Secure the test item on the transport

c. Take motion pictures of all unloading operations.

d. Repeat steps a through c with the vehicle loaded and record the type and pound weight of the load.

6.2.1.1.2 Loading Operations - Determine the ability of the test item to be loaded into a landing craft, from a transport, as follows:

a. Release the unloaded test item from its tie-down (secure) position and prepare it for unloading.

b. Unload the test item from its transport to a landing craft, and secure it in the landing craft, if required, and record the following:

1) Requirement of steps a.1 through a.8 of paragraph 6.2.1.1.1
2) Difficulties encountered:

a) Removing tie-downs from the test item
b) Preparing the test item for loading
c) Loading the test item on its landing craft
d) Securing the test item in the landing craft, when applicable

3) Time required to:

a) Prepare the test item for loading
b) Load the test item on the landing craft
c) Secure the test item in the landing craft, when applicable.

c. Take motion pictures of all operations.

d. Repeat steps a through c with the vehicle loaded and record the type and weight of the load.

6.2.1.1.3 Transport and Off-Loading - Determine the ability of the test item to be transported to the shoreline and off-loaded to the beach as follows:

a. Transport an unloaded test item, in its landing craft, to the shore line and off-load the vehicle.

b. Determine and record the maximum ramp angle that the test item can negotiate.

NOTE: At least once during off-loading operations the landing craft's ramp angle is to be at maximum.

c. Ford the test vehicle through the surf and directly to a loose sandy beach (wet and dry) having a moderate slope. During the fording operation turn off the engine and then verify the ability to restart the engine. Record the following:

1) Wave height
2) Surf height
3) Wind speed and direction
4) Water depth
5) Vehicle sinkage
6) Time vehicle spent in water
7) Distance vehicle travelled in water
8) Slope of the landing beach
9) Adequacy of the vehicle's performance between the landing

craft and the beach

10) Ability of the vehicle's engine to be restarted while in the water.

d. Take motion pictures of all operations

e. Visually examine the test item and record the presence of salt water in the following areas:

1) Transmission
2) Engine oil
3) Transfer ease
4) Differential
5) Other underwater components

f. Repeat steps c and d with beach slopes of increasing grade to determine the maximum slope the test item can negotiate.

g. Repeat steps c through e with the test item moving parallel to the beach for a minimum of 250 yards.

h. Repeat steps a through g with the unloaded test item towing an empty trailer, if applicable.

i. Repeat steps a through g with the unloaded test item towing a loaded trailer, if applicable.

j. Repeat steps a through i with a loaded test vehicle and record the type of load and weight of the test item.

k. Each 24 hours, visually inspect the vehicle and record the effects of corrosive action.

6.2.1.1.4 On Land Operability for Unloaded Vehicles - Perform the following after landing on the beach:

NOTE: To determine the compatibility of existing supply handling media with the test item, conventional forklifts or MHE shall be used at the beach and supply point for unloading and reloading the test item.

a. Drive the test vehicle(s) a minimum distance of 2 miles to a designated supply point. Record the following for each vehicle:

NOTE: The trails/roads shall consist of wet and dry sand, dunes, wooded trails, fordable rivers and muddy or swamp areas, and soft soil areas.

1) Description of trails/roads
2) Difficulties encountered traversing the various trails/roads

NOTE: When mobility difficulties are encountered, due to soil conditions, take and record cone penetrometer readings.

3) Mileage over each type of terrain

4) Time required to traverse each type of terrain
5) Maximum speed attained in each type of terrain
6) Vehicle braking performance in each type of terrain
7) Vehicle's maneuverability in each type of terrain

b. At a supply point load the test vehicle(s) to its maximum rated capacity (tonnage or cubage) as described in the test plan, and return the vehicle to the beach. Record the data required by step a and the following:

1) Type of load
2) Cargo weight
3) Cargo cubage
4) Stability of vehicle loaded

c. At the beach perform the following operations:

1) Using the test item's own power, on-load and off-load the loaded test item on to a beached landing craft.

NOTE: At least once during the operation, the landing craft's ramp angle is to be at maximum.

2) Determine and record the maximum ramp angle which the test item can negotiate for each operation.

d. Repeat steps a and b with the test item towing an empty trailer.

e. Repeat steps a and b with the test item towing a loaded trailer and record type and weight of the load.

f. Repeat steps a and b with the test item towing a loaded alike vehicle.

g. Every 24 hours, visually inspect the test vehicle and record the effects of corrosive action.

h. Unload the test vehicle on the beach and repeat step c with the empty test item.

i. Take motion pictures of all operations.

6.2.1.1.5 On Land Operability for Loaded Vehicles - Perform the following after landing on the beach:

a. Drive the loaded test vehicle(s) to the designated supply point as described in paragraph 6.2.1.1.4 and record the data required by steps a and b of paragraph 6.2.1.1.4.

b. At the supply point unload the test vehicle.

c. Return the test vehicle to the beach and record the data required in step a of paragraph 6.2.1.1.4.

d. Repeat steps a and b with the test item towing an empty trailer.

e. Repeat steps a and b with the test item towing a loaded trailer and record type and weight of the load.

f. Repeat steps a and b with the test item towing a loaded alike vehicle.

g. Every 24 hours, visually inspect the test vehicle and record the effects of corrosive action.

h. Take motion pictures of all operations.

6.2.1.2 With Fording Kit

Repeat steps c through k of paragraph 6.2.1.1.3 with the appropriate fording kit installed.

6.2.1.3 Adverse Conditions

Repeat the in water operations of paragraphs 6.2.1.1 and 6.2.1.2 with the test item subject to wind and sea conditions up to a wind velocity of 7-10 knots and wave heights of 3 to 5 feet.

6.2.2 Operational Performance of Swimmers and Floaters

NOTE: 1. If the test item does not have an inherent design for swimming, a swimming kit will be provided. This kit consists of a breathing, exhaust, ignition, and pontoon apparatus which permits it to swim. Some kits have an automatic engine-cooling fan shut-off and means of water propulsion. These procedures apply to those test items with or without kits.

2. The procedures of paragraph 6.2.2.1 through 6.2.2.5 shall be performed with a minimum of wind and calm seas.

6.2.2.1 On-Loading Operations

Determine the ability of the test item to be on-loaded in deep water by the ship's hoisting gear or floating crane and over the ramp by its own power, as follows:

NOTE: 1. Transporting craft shall be anchored offshore in water of sufficient depth to permit free floating of the test item.

2. Capacity of the ship's hoisting gear, including slings will be checked with the ship's Operations Officer to assure that the gear is of appropriate capacity.

a. On-load an unloaded test item from the water on to a transport ship anchored offshore and record the following:

1) Wave height
2) Wind direction and speed
3) Type of transport
4) Type of hoisting gear used (ship's or floating crane)

5) Number of personnel required
6) Equipment used
7) Adequacy of the lifting eyes of the vehicle (when applicable)
8) Stability of the vehicle while slinging (when applicable)
9) Difficulties encountered:

a) Preparing test item for loading
b) Loading

10) Time required to:

a) Prepare the test item for loading
b) Load the test item on the transport
c) Secure the test item on the transport

b. On-load an unloaded test item on to an LST (Landing Ship Tank) anchored offshore, from the water by driving it over the ramp on to the tank deck using its own power and record the following:

1) Wave height
2) Wind direction and speed
3) Difficulties encountered
4) Time required to:

a) Load the test item on the LST
b) Secure the test item on the tank deck

5) Maximum ramp angle
6) Extent of sea conditions likely to cause difficulty

c. Repeat steps a and b with the vehicle loaded and record the type and weight of the load.
d. Take motion pictures of all operations.

6.2.2.2 Off-Loading Operations

Determine the ability of the test item to be off-loaded into deep water by the ship's hoisting gear or floating crane and over the ramp by its own power, as follows:

NOTE: Transporting craft shall be anchored offshore in water of sufficient depth to permit free floating of the test item.

a. Off-load an unloaded test item from a cargo ship or an AKA anchored offshore and record the following:

1) Requirements of steps a.1 through a.8 of paragraph 6.2.2.1.
2) Difficulties encountered:

a) Preparing the test item for unloading
b) Unloading

3) Time required to:

a) Prepare the test item for unloading
b) Place the test item on the water

b. Off-load an unloaded test item from an LST into the water by driving it over the ramp using its own power and record the following:

1) Wave height
2) Wind direction and speed
3) Difficulties encountered
4) Time required to:

a) Prepare for unloading
b) Move vehicle from LST into the water

c. Repeat steps a and b with the vehicle loaded and record the type and weight of the load.

d. Take motion pictures of all operations.

6.2.2.3 In-Water Operations

Determine the ability of the test item to maneuver from a transporting craft to shore, as follows:

a. Operate an unloaded test item through the surf and directly to a loose sandy beach (wet and dry) having a moderate slope. During the operation turn the vehicle and observe its turning ability. Record the following:

1) Wave height
2) Wind speed and direction
3) Water depth
4) Amount of freeboard
5) Time vehicle spent in water
6) Distance vehicle travelled in water
7) Maximum beach landing slope the test item can negotiate
8) Adequacy of the vehicle's performance between the landing craft and the beach
9) Difficulties encountered, if any, from broaching
10) Turning ability in wave action
11) Adequacy of stability
12) Extent of sea conditions likely to cause difficulty
13) If applicable, record the mode of propulsions for floaters

b. Visually examine the test item as required in step e and k of paragraph 6.2.1.1.3.

c. Repeat step a with the vehicle loaded and record the type and weight of load.

d. Repeat step a and b with the vehicle towing an alike vehicle loaded and record the type and weight of its load.

e. Repeat steps a through c with beach slopes of increasing grade to determine the maximum slope the test item can negotiate.

f. Repeat steps a through d with the test item moving parallel to the beach for a minimum of 250 yards.

6.2.2.4 On Land Operability for Unloaded Vehicles

Conduct and record the requirements of paragraph 6.2.1.1.4.

6.2.2.5 On Land Operability for Loaded Vehicles

Conduct and record the requirements of paragraph 6.2.1.1.5.

6.2.2.6 Adverse Conditions

Repeat the in-water operations of paragraphs 6.2.2.1 through 6.2.2.3 with the test item subject to wind and sea conditions up to a wind velocity of 7-10 knots and wave heights of 3 to 5 feet.

6.2.2.7 Floater

Repeat paragraphs 6.2.2.1 through 6.2.2.6, as applicable, for a "Floater" with no self propulsion using an appropriate towing vehicle.

6.2.3 Operational Performance of Amphibians

NOTE: 1. The procedures of paragraph 6.2.3.1 through 6.2.3.3 shall be performed during daylight and at night with a minimum of wind, and under calm sea conditions.

2. Off-loading and on-loading on the transporting ship shall be performed with the ship anchored a minimum of 5 miles off shore.

6.2.3.1 On-Loading Operations

Determine the ability of the test item to be on-loaded by the ship's hoisting gear or floating crane, over the ramp of an "LST", and from the dock deck of an "LSD", as follows:

NOTE: Capacity of the ship's hoisting gear, including slings, will be checked with the ship's Operations Officer to assure that the gear is of the appropriate capacity.

a. During daylight, on-load an unloaded test item from the water on to the transport ship using the ship's hoisting gear or floating crane and record the following:

1) Wave height
2) Wind direction and speed
3) Type of transport
4) Type of hoisting gear used
5) Number of personnel required
6) Equipment used
7) Adequacy of lifting eyes of the vehicle (when applicable)
8) Stability of the vehicle while slinging (when applicable)
9) Difficulties encountered:

    a) Preparing test item for loading
    b) Loading

10) Time required to:

    a) Prepare the test item for loading
    b) Load the test item on the transport
    c) Secure the test item on the transport

11) Extent of sea conditions likely to cause difficulty

b. During daylight, on-load an unloaded test item from the water on to the dock deck of an "LSD" and record the data required by step a, as applicable, and the procedure of entry on to the dock deck.

c. During daylight, on calm seas, on-load an unloaded test item on to an LST from the water by driving it over the ramp on to the tank deck using its own power and record the following:

1) Wave height
2) Wind direction and speed
3) Difficulties encountered
4) Time required to:

    a) Load the test item on the LST
    b) Secure the test item on the LST

d. Repeat steps a through c with the vehicle loaded and record the type and weight of the load.

e. Repeat steps a through d during darkness.

f. Take motion pictures of all operations.

6.2.3.2 Off-Loading Operations

Determine the ability of the test item to be off-loaded by the ship's hoisting gear or floating crane, from the dock deck of an "LSD", and over the ramp of an "LST", as follows:

a. During daylight, on calm seas, off-load an unloaded test item from the transport ship to the water using the ship's hoisting gear or floating crane and record the following:

1) Requirements of steps a.1 through a.8 of paragraph 6.2.3.1.
2) Difficulties encountered:

a) Preparing test item for off-loading
b) Off-loading

3) Time required to:

a) Prepare the test item for off-loading
b) Off-load the test item
c) Remove securing (tie-downs, etc.)

b. During daylight, off-load an unloaded test item from an "LSD" and record the data required for step a, as applicable, and the procedure of exit from the ship.

c. During daylight, on calm seas, off-load an unloaded test item from an LST into the water by driving it over the ramp using its own power and record the following:

1) Wave height
2) Wind direction and speed
3) Difficulties encountered
4) Time required to:

a) Remove securing
b) Off-load the test item

d. Repeat steps a through c with the vehicle loaded and record the type and weight of the load.

e. Repeat steps a through d during darkness.

f. Take motion pictures of all operations.

6.2.3.3 In-Water Operations

Determine the ability of the test item to be loaded and unloaded at ship's side, and its maneuverability from the transporting craft, anchored a minimum of 5 miles offshore, to shore, as follows:

6.2.3.3.1 Loading and Unloading - Load and unload the test item at ship's side as follows:

a. Moor the test item at ship side and conduct loading and unloading operations using the ship's booms. Determine and record the following:

NOTE: 1. When loaded, the test item shall carry personnel and/or various representative cargo of weight up to the rated vehicle capacity.

2. Personnel shall be loaded and unloaded by using

disembarking nets (cargo nets draped over the side of the ship).

1) Capability of mooring and holding at shipside
2) Wave height
3) Wind speed and direction
4) Type and weight of load
5) Type of transport
6) Equipment used
7) Number of personnel required to:

a) Load test item
b) Unload test item

8) Difficulties encountered:

a) Mooring the test item
b) Loading the test item
c) Unloading the test item

9) Time required to:

a) Moor test item
b) Load test item
c) Unload test item

b. Take motion pictures of all operations.

6.2.3.3.2 In-Water Maneuverability - Maneuver the test item from the transport ship to shore as follows:

a. Conduct and record the requirements of paragraph 6.2.2.3.

1) Record the following:

a) Maximum speed
b) Average fuel consumption

b. Recover the test item from the surf zone as if it were disabled in a loaded and unloaded state. Record the type of towing vehicle.

c. Recover a loaded disabled alike vehicle from the surf zone with the test vehicle loaded and unloaded. Determine and record the performance ability of the test item vehicle loaded and unloaded.

6.2.3.4 On Land Operability for Unloaded Vehicles - Conduct and record the requirements of paragraph 6.2.1.1.4.

6.2.3.5 On Land Operability for Loaded Vehicles - Conduct and record the requirements of paragraph 6.2.1.1.5.

6.2.3.6 Adverse Conditions

Repeat the in water operations of paragraph 6.2.3.1 through 6.2.3.3 with the test item subject to wind and sea conditions not to exceed the operational or technical characteristics of the vehicle. Record the sea conditions which cause difficulties.

6.2.4 Maintenance Evaluation

During the conduct of paragraphs 6.2.1 through 6.2.3 the maintainability of each test item shall be determined as described in applicable sections of MTP 2-3-502 and the following:

a. Perform scheduled maintenance as required by the applicable maintenance manual.
b. Perform unscheduled maintenance as required.
c. Record the following for each type of maintenance performed:

1) Type of maintenance
2) Description of maintenance action
3) Amount of lubricant used, if applicable
4) Time required to perform each maintenance action
5) Number of personnel required for each maintenance action
6) Repair parts used
7) Modifications performed, if applicable

6.2.5 Human Factors

During the conduct of paragraph 6.2.1 through 6.2.4, determine the compatibility of the man-task relationship as described in applicable sections of MTP 2-2-516 and comment on the following:

a. Ease of operation
b. Physical effort required for operation
c. Ease of maintenance action, if applicable

6.2.6 Safety Hazards

During the conduct of paragraph 6.2.1 through 6.2.4, determine the factors which represent Safety Hazards as described in the applicable sections of MTP 2-3-501.

6.2.7 Value Analysis

During the conduct of paragraph 6.2.1 through 6.2.4, service test personnel and the test officer shall observe and comment on the test item's features to determine and record whether any of these features may be eliminated without decreasing its functional value.

6.2.8 Post Operation Inspection

a. At the conclusion of testing, the test item shall be cleaned thoroughly, including flushing with fresh water, and given a technical

inspection as described in paragraph 6.1.3.2, and determine and record the following for the vehicle and components:

NOTE: Any components of the vehicle or related item which show evidence of corrosion shall be given a complete tear down and inspected to determine the extent of damage from corrosive action.

1) All evidence of corrosion damage
2) Extent of damage

NOTE: Corrosion findings shall be documented in a narrative form.

b. Take still photographs of findings.

6.3 TEST DATA

6.3.1 Preparation for Test

6.3.1.1 Personnel

Record the following for service personnel performing the tests:

a. Rank
b. MOS number
c. Time spent in training, in months
d. Experience, in MOS, in months

6.3.1.2 Physical Characteristics

Data shall be collected and recorded as described in MTP 2-3-500.

6.3.1.3 Pre-Operational Inspection

Data shall be collected and recorded as described in MTP 2-3-500.

6.3.1.3.1 Inventory Check -

Record any discrepancies

6.3.1.3.2 Technical Inspection -

Record the following:

a. Repairs required
b. Adjustments made
c. Lubrication and oil requirements
d. Deficiencies

6.3.1.3.3 Water Tightness -

Record the specific areas where the presence of water or moisture was found.

6.3.2 Test Conduct

6.3.2.1 Operational Performance of Non-Swimmers

Record the presence or absence of the kit

6.3.2.1.1 At Sea Loading Operations -

a. Record the following for each test item operation:

1) Test item condition (loaded, unloaded)
2) For loaded test items:

a) Type of load
b) Weight of load in pounds

3) Wave height in feet
4) Wind direction (north, west, etc.)
5) Wind speed in mph
6) Type of landing craft (LCM, LCU, etc.)
7) Type of transport (AKA, APA, etc.)
8) Adequacy of lifting eyes of the test item, when applicable
9) Stability of the test item while slinging, when applicable
10) Number of personnel required
11) Equipment used
12) Difficulties encountered:

a) Removing tie-downs from the test item
b) Preparing the test item for loading
c) Landing the test item in the landing craft
d) Securing the test item in the landing craft, when applicable

13) Time required, in minutes to:

a) Prepare the test item for loading
b) Land the test item on the landing craft
c) Secure the test item on the landing craft, when applicable

b. Retain all motion pictures taken.

6.3.2.1.2 At Sea Unloading Operations -

a. Record the following for each test item operation:

1) Test item condition (loaded, unloaded)
2) For loaded test items:

   a) Type of load
   b) Weight of load in pounds

3) Wave height in feet
4) Wind direction (east, south, etc.)
5) Wind speed in mph
6) Type of landing craft used (LCM, LCU, etc.)
7) Type of transport used (AKA, APA, etc.)
8) Adequacy of lifting eyes of the test item, when applicable
9) Stability of the test item while slinging, when applicable
10) Number of personnel used
11) Equipment used
12) Difficulties encountered:

   a) Preparing the test item for unloading
   b) Landing the test item on the transport
   c) Securing the test item on the transport

13) Time required, in minutes to:

   a) Prepare the test item for unloading
   b) Land the test item on the transport
   c) Secure the test item on the transport

b. Retain all motion pictures taken.

6.3.2.1.3 Transport and Off-Loading -

a. Record the following for each test item operation:

1) Test item condition (loaded, unloaded)
2) For loaded test items:

   a) Type of load
   b) Weight of load in pounds

3) Test condition (towing, not towing)
4) For towing condition

   a) Trailer condition (loaded, unloaded)
   b) For loaded trailer:

      (1) Type of load
      (2) Weight of load in pounds

5) Wave Length in feet
6) Surf height in feet
7) Wind speed in mph
8) Wind direction (east, south)
9) Water depth in inches
10) Vehicle sinkage in inches
11) Time vehicle spent in water in minutes
12) Distance vehicle travelled in water in yards
13) Slope of landing beach in percent
14) Adequacy of vehicle performance between the landing craft and the beach
15) Ability of the vehicle's engine to be restarted while in the water
16) Maximum beach slope the test item can negotiate
17) Specific areas where the presence of salt water was found
18) Effects of corrosive action

b. Retain all motion pictures taken.

6.3.2.1.4 On Land Operability for Unloaded Vehicles -

a. Record the following for each test item operation:

1) Going to the designated supply point:

a) Test condition (towing, not towing)
b) For towing condition:

(1) Type trailer
(2) Trailer Condition (loaded, unloaded)
(3) Type of load, when applicable
(4) Weight of load in pounds, when applicable

c) Type of terrain traversed (dry, sandy, swamp, etc.)
d) Soil Trafficability readings, when applicable
e) Difficulties encountered traversing various trails/roads
f) Mileage over each type of terrain
g) Time, in minutes, required to traverse each type of terrain
h) Maximum speed, in mph, attained on each type of terrain
i) Vehicle's braking performance on each type of terrain
j) Vehicle's maneuverability on each type of terrain

2) Loading at the supply point and returning to the beach.

a) Test condition (towing, not towing)
b) For test vehicle:

(1) Type load
(2) Load weight in pounds
(3) Cargo cubage in feet^3

c) For towing condition:

(1) Type tow (trailer, loaded alike vehicle)
(2) Type trailer when applicable
(3) Trailer condition (loaded, unloaded) when applicable
(4) Type of load, when applicable
(5) Load weight in pounds, when applicable

d) Type of terrain traversed (wooded trails, dunes, etc.)
e) Soil trafficability readings, when applicable
f) Difficulties encountered traversing various trails/roads
g) Mileage over each type of terrain
h) Time, in minutes, required to traverse each type of terrain
i) Maximum speed, in mph, attained on each type of terrain
j) Vehicle's braking performance on each type of terrain
k) Vehicle's maneuverability on each type of terrain
l) Stability of vehicle loaded

3) While negotiating a beached landing craft:

a) Maximum ramp angle, in degrees, the test item can negotiate on-loading:

(1) Empty
(2) Loaded

b) Maximum ramp angle, in degrees, the test item can negotiate off-loading:

(1) Empty
(2) Loaded

4) Effects of corrosive action

b. Retain all motion pictures taken.

6.3.2.1.5 On Land Operability for Loaded Vehicles -

a. Record the following for each test item operation:

1) Going to the designated supply point:

a) Test condition (towing, not towing)
b) For test vehicle

(1) Type load
(2) Load weight in pounds
(3) Cargo cubage in feet^3

c) For towing condition:

(1) Type trailer
(2) Trailer condition (loaded, unloaded)
(3) Type of load, when applicable
(4) Load weight in pounds, when applicable
(5) Type of terrain traversed (marsh, river bed, etc.)
(6) Soil trafficability recordings, when applicable
(7) Difficulties encountered traversing various trails/roads
(8) Mileage over each type of terrain
(9) Time, in minutes, required to traverse each type of terrain
(10) Maximum speed, in mph, attained on each type of terrain
(11) Vehicle's braking performance on each type of terrain
(12) Vehicle's maneuverability on each type of terrain
(13) Stability of the vehicle loaded

2) Going from the supply point to the beach:

a) Test condition (towing, not towing)
b) For towing condition:

(1) Type trailer
(2) Trailer condition (loaded, not loaded)
(3) Type of load, when applicable
(4) Load weight in pounds, when applicable

c) Type of terrain traversed (sand dunes, marsh, etc.)

(1) Soil trafficability readings, when applicable

d) Difficulties encountered traversing various trails/roads
e) Mileage over each type of terrain
f) Time, in minutes, required to traverse each type of terrain
g) Maximum speed, in mph, attained on each type of

terrain
h) Vehicle's braking performance on each type of terrain
i) Vehicle's maneuverability in each type of terrain

3) Record effects of corrosive action

b. Retain all motion pictures taken.

6.3.2.2 Operational Performance of Swimmers and Floaters

6.3.2.2.1 On-Loading Operations -

Record the following for each test item operation:

a. On-loading onto a transport ship anchored off shore:

1) Test item condition (loaded, unloaded)
2) For loaded test items

a) Type of load
b) Weight of load in pounds

3) Wave height, in feet
4) Wind direction and speed, in mph
5) Type of loading craft (LCM, LCU, etc.)
6) Type of transport (AKA, APA, etc.)
7) Number of personnel required
8) Equipment used
9) Adequacy of lifting eyes of the vehicle (when applicable)
10) Stability of the vehicle while slinging (when applicable)
11) Difficulties encountered

a) Preparing the test item for on-loading
b) On-loading

12) Time, in minutes, required to:

a) Prepare the test item for loading
b) Load the test item on the transport
c) Secure the test item on the transport

b. On-loading onto an LST anchored offshore:

1) Test item condition (loaded, unloaded)
2) For loaded test items:

a) Type of load
b) Weight of load in pounds

3) Wave height, in feet

4) Wind direction (east, north)
5) Wind speed in mph
6) Difficulties encountered
7) Time required to:

a) Load the test item on the LST
b) Secure the test item on the LST

8) Maximum ramp angle, in degrees
9) Sea conditions causing difficulties

c. Retain all motion pictures taken.

6.3.2.2.2 Off-Loading Operations -

Record the following for each test item operation:

a. Off-loading from a transport ship anchored offshore:

1) Test item condition (loaded, unloaded)
2) For loaded test items:

a) Type of load
b) Weight of load in pounds

3) Wave height, in feet
4) Wind direction (west, south)
5) Wind speed in mph
6) Type of transport (AKA, APA, etc.)
7) Number of personnel required
8) Equipment used
9) Adequacy of lifting eyes of the vehicle (when applicable)
10) Stability of the vehicle while slinging (when applicable)
11) Difficulties encountered

a) Preparing the test item for unloading
b) Unloading

12) Time, in minutes, required to:

a) Prepare the test item for unloading
b) Lower the test item into the water

b. Off-loading from an LST anchored offshore:

1) Test item condition (loaded, unloaded)
2) For loaded test items:

a) Type of load
b) Weight of load in pounds

3) Wave height, in feet
4) Wind direction (north, east, etc.)
5) Wind speed in mph
6) Difficulties encountered
7) Time required to:

a) Prepare for unloading
b) Move vehicle from LST into the water

c. Retain all photographs

6.3.2.2.3 In-Water Operations -

a. Record the following for each test item operation:

1) Test item condition (loaded, unloaded)
2) For loaded test items

a) Type of load
b) Weight of load in pounds

3) Wave height in feet
4) Wind direction (east, south, etc.)
5) Wind speed in mph
6) Water depth in feet
7) Amount of freeboard
8) Time, in minutes, vehicle spent in water
9) Distance vehicle travelled in water, in yards
10) Percent of grade of slope for each landing beach which the test item can negotiate
11) Adequacy of the vehicle's performance between the loading craft and the beach (for swimmers only):

a) Operating alone
b) Towing an alike loaded vehicle

12) Difficulties encountered from breaching, if any
13) Turning ability in wave action
14) Sea conditions causing difficulties
15) As applicable, mode of propulsion for floaters and difficulties encountered
16) The specific areas where the presence of salt water was found
17) Effects of corrosive action
18) Ability of the vehicle to move parallel to the beach (swimmers only)

b. Retain photographs.

6.3.2.2.4 On Land Operability for Unloaded Vehicles -

a. Record the following for each test item operation:

1) Going to the designated supply point:

a) Test condition (towing, not towing)
b) For towing condition:

(1) Type trailer
(2) Trailer conditions (loaded, unloaded)
(3) Type of load, when applicable
(4) Weight of load in pounds, when applicable

c) Type of terrain traversed (dry sand, swamp, etc.)
d) Soil trafficability readings, when applicable
e) Difficulties encountered traversing various trails/ roads
f) Mileage over each type of terrain
g) Time, in minutes, required to traverse each type of terrain
h) Maximum speed, in mph, attained on each type of terrain
i) Vehicle's braking performance on each type of terrain
j) Vehicle's maneuverability on each type of terrain

2) Loading at the supply point and returning to the beach:

a) Test condition (towing, not towing)
b) For test vehicle:

(1) Type load
(2) Load weight in pounds
(3) Cargo cubage in feet^3

c) For towing condition:

(1) Type tow (trailer, loaded alike vehicle)
(2) Type trailer, when applicable
(3) Trailer condition (loaded, unloaded), when applicable
(4) Type of load, when applicable
(5) Load weight in pounds, when applicable

d) Type of terrain traversed (wooded trails, dunes, etc.)
e) Soil trafficability readings, when applicable
f) Difficulties encountered traversing various trails/ roads
g) Mileage over each type of terrain
h) Time, in minutes, required to traverse each type of terrain
i) Maximum speed, in mph, attained on each type of

terrain
j) Vehicle's braking performance on each type of terrain
k) Vehicle's maneuverability on each type of terrain
l) Stability of the loaded vehicle

3) While negotiating, a beached landing craft:

a) Maximum ramp angle in degrees, the test item can negotiate on-loading:

(1) Empty
(2) Loaded

b) Maximum ramp angle in degrees the test item can negotiate off-loading:

(1) Empty
(2) Loaded

4) Effects of corrosion

b. Retain all motion pictures taken.

6.3.2.2.5 On Land Operability for Loaded Vehicles -

a. Record the following for each test item operation:

1) Going to the designated supply point:

a) Test condition (towing, not towing)
b) For test vehicle

(1) Type load
(2) Load weight in pounds
(3) Cargo cubage in feet^3

c) For towing condition:

(1) Type trailer
(2) Trailer condition (loaded, unloaded)
(3) Type of load, when applicable
(4) Load weight in pounds, when applicable
(5) Type of terrain traversed (marsh, river bed, etc.)
(6) Soil trafficability recordings, when applicable
(7) Difficulties encountered traversing various trails/roads
(8) Mileage over each type of terrain
(9) Time, in minutes, required to traverse each type of terrain

(10) Maximum speed, in mph, attained on each type of terrain
(11) Vehicle's braking performance on each type of terrain
(12) Vehicle's maneuverability on each type of terrain
(13) Stability of the loaded vehicle

2) Going from the supply point to the beach:

a) Test condition (towing, not towing)
b) For towing condition:

(1) Type trailer
(2) Trailer condition (loaded, not loaded)
(3) Type of load, when applicable
(4) Load weight in pounds, when applicable

c) Type of terrain traversed (sand dunes, marsh, etc.)

(1) Soil trafficability readings when applicable

d) Difficulties encountered traversing various trails/roads
e) Mileage over each type of terrain
f) Time, in minutes, required to traverse each type of terrain
g) Maximum speed, in mph, attained on each type of terrain
h) Vehicle's braking performance on each type of terrain
i) Vehicle's maneuverability in each type of terrain

3) Record effects of corrosive action

b. Retain all motion pictures taken.

6.3.2.3 Operational Performance of Amphibians

6.3.2.3.1 On-Loading Operations -

a. Record the following for each test item operation:

1) On-loading onto an anchored transport ship:

a) Test item condition (loaded, unloaded)
b) For loaded test item:

(1) Type of load
(2) Weight of load in pounds

c) Time of day (day, night)
d) Wave height in feet
e) Wind direction (east, north)
f) Wind speed in mph
g) Type of hoisting gear used (ship's boom or floating crane)
h) Type of ship (AKA, APA, etc.)
i) Number of personnel required
j) Equipment used
k) Adequacy of lifting eyes of the vehicle (when applicable)
l) Stability of the vehicle while slinging (when applicable)
m) Difficulties encountered

(1) Preparing the test item for on-loading
(2) On-loading

n) Time, in minutes, required to:

(1) Prepare the test item for loading
(2) Load the test item on the transport
(3) Secure the test item on the transport

o) Sea conditions causing difficulties

2) On-loading onto an anchored LSD

a) Test item condition (loaded, unloaded)
b) For loaded condition

(1) Type of load
(2) Weight of load in pounds

c) Time of day (day, night)
d) Wave height in feet
e) Wind direction (east, north)
f) Wind speed in mph
g) Procedure for entry on to the dock deck
h) Number of personnel required
i) Equipment used
j) Adequacy of lifting eyes of the vehicle (when applicable)
k) Stability of the vehicle while slinging (when applicable)
l) Difficulties encountered:

(1) Preparing the test item for on-loading
(2) On-loading

m) Time, in minutes, required to:

(1) Prepare the test item for loading
(2) Load the test item on the LSD
(3) Secure the test item on the LSD

n) Sea condition causing difficulties

3) On-loading onto an anchored LST:

a) Test item condition (loaded, unloaded)
b) For loaded condition

(1) Type of load
(2) Weight of load in pounds

c) Time of day (day, night)
d) Wave height in feet
e) Wind direction (east, south, etc.)
f) Wind speed in mph
g) Difficulties encountered
h) Time required to:

(1) Load the test item on the LST
(2) Secure the test item on the LST

i) Sea conditions causing difficulties

b. Retain all motion pictures taken.

6.3.2.3.2 Off-Loading Operations -

a. Record the following for each test item operation:

1) Off-loading from an anchored transport:

a) Test item condition (loaded, unloaded)
b) For loaded condition:

(1) Type of load
(2) Weight of load in pounds

c) Time of day (day, night)
d) Wave height in feet
e) Wind direction (east, south, etc.)
f) Wind speed in mph
g) Type of hoisting gear used (ship's boom or floating crane)
h) Type of transport (AKA, APA, etc.)
i) Number of personnel required
j) Equipment used
k) Adequacy of lifting eyes of the vehicle (when applicable)

l) Stability of the vehicle while slinging (when applicable)
m) Difficulties encountered:

(1) Preparing the test item for unloading
(2) Unloading

n) Time, in minutes, required to:

(1) Prepare the test item for unloading
(2) Lower the test item into the water

o) Sea condition causing difficulties

2) Off-loading from the deck of an LSD:

a) Test item condition (loaded, unloaded)
b) For loaded condition

(1) Type of load
(2) Weight of load in pounds

c) Time of day (day, night)
d) Wave height in feet
e) Wind direction (east, south, etc.)
f) Wind speed in mph
g) Procedure for exiting from the ship
h) Number of personnel required
i) Equipment used
j) Stability of the vehicle while slinging (when applicable)
k) Difficulties encountered:

(1) Preparing the test item for unloading
(2) Unloading

l) Time, in minutes, required to:

(1) Prepare the test item for unloading
(2) Move the test item into the water

m) Sea condition causing difficulties

3) Off-loading from an anchored LST:

a) Test item condition (loaded, unloaded)
b) For loaded condition

(1) Type of load
(2) Weight of load in pounds

c) Time of day (day, night)
d) Wave height in feet
e) Wind direction (east, south, etc.)
f) Wind speed in mph
g) Difficulties encountered
h) Time required to:

(1) Prepare for unloading
(2) Move vehicle from LST into the water

i) Sea conditions causing difficulties

b. Retain all motion pictures taken.

6.3.2.3.3 In-Water Operations -

a. Record the following for each test item operation:

1) Loading and unloading

a) Capability of mooring and holding at ship's side
b) Wave height in feet
c) Wind direction (east, south, etc.)
d) Wind speed in mph
e) Type and weight of load in pounds
f) Type of transport (AKA, APA, etc.)
g) Equipment used
h) Number of personnel required to:

(1) Load test item
(2) Unload test item

i) Difficulties encountered

(1) Mooring the test item
(2) Loading the test item
(3) Unloading the test item

j) Time required to:

(1) Moor the test item
(2) Load the test item
(3) Unload the test item

2) In-water maneuverability:

a) Test item condition (loaded, unloaded)
b) Wave height in feet
c) Wind direction (east, north, etc.)
d) Wind speed in mph
e) Water depth in feet

f) Amount of freeboard
g) Time, in minutes, vehicle spent in water
h) Distance vehicle travelled in water, in yards
i) Percent of grade of slope for each landing beach
j) Adequacy of the vehicle's performance between the landing craft and the beach:

(1) Operating alone
(2) Towing an alike loaded vehicle

k) Difficulties encountered from breaching, if any
l) Turning ability in wave action
m) Sea conditions causing difficulties
n) Vehicle recovering test vehicle from surf during simulated disability
o) Ability of the test vehicle to recover a like vehicle from the surf where salt water was found
p) Specific areas
q) Effects of corrosive action
r) Ability of the vehicle to move parallel to the beach

(1) Operating alone
(2) Towing an alike vehicle

s) Maximum speed attained in knots
t) Average fuel consumption in gallons/hr.

b. Retain all motion pictures taken.

6.3.2.3.4 On-Load Operability for Unloaded Vehicles -

a. Record the following for each test item operation:

1) Going to the designated supply point:

a) Test condition (towing, not towing)
b) For towing condition:

(1) Type trailer
(2) Trailer condition (loaded, unloaded)
(3) Type of load, when applicable
(4) Weight of load in pounds, when applicable

c) Type of terrain traversed (dry sand, swamp, etc.)
d) Soil trafficability readings, when applicable
e) Difficulties encountered traversing various trails/roads
f) Mileage over each type of terrain
g) Time, in minutes, required to traverse each type of terrain
h) Maximum speed, in mph, attained on each type of

terrain
i) Vehicle's braking performance on each type of terrain
j) Vehicle's maneuverability on each type of terrain

2) Landing at the supply point and returning to the beach:

a) Test condition (towing, not towing)
b) For test vehicle:

(1) Type load
(2) Load weight in pounds
(3) Cargo cubage in feet^3

c) For towing condition:

(1) Type tow (trailer, loaded alike vehicle)
(2) Type trailer, when applicable
(3) Trailer condition (loaded, unloaded) when applicable
(4) Type of load, when applicable
(5) Load weight in pounds, when applicable

d) Type of terrain traversed (wooded trails, dunes, etc.)
e) Soil trafficability readings, when applicable
f) Difficulties encountered traversing various trails/roads
g) Mileage over each type of terrain
h) Time, in minutes, required to traverse each type of terrain
i) Maximum speed, in mph, attained on each type of terrain
j) Vehicle's braking performance on each type of terrain
k) Vehicle's maneuverability on each type of terrain
l) Stability of the loaded vehicle

3) While negotiating a beached landing craft:

a) Maximum ramp angle in degrees the test item can negotiate on-loading:

(1) Empty
(2) Loaded

b) Maximum ramp angle in degrees the test item can negotiate off-loading:

(1) Empty
(2) Loaded

4) Effects of corrosion

b. Retain all motion pictures taken.

6.3.2.3.5 On-Load Operability for Loaded Vehicles -

a. Record the following for each test item operation:

1) Going to the designated supply point:

a) Test condition (towing, not towing)
b) For test vehicle

(1) Type load
(2) Load weight in pounds
(3) Cargo cubage in feet^3

c) For towing condition

(1) Type trailer
(2) Trailer condition (loaded, unloaded)
(3) Type of load, when applicable
(4) Load weight in pounds, when applicable
(5) Type of terrain traversed (marsh, river bed, etc.)
(6) Soil trafficability recordings, when applicable
(7) Difficulties encountered traversing various trails/roads
(8) Mileage over each type of terrain
(9) Time, in minutes, required to traverse each type of terrain
(10) Maximum speed, in mph, attained on each type of terrain
(11) Vehicle's braking performance on each type of terrain
(12) Vehicle's maneuverability on each type of terrain
(13) Stability of the loaded vehicle

2) Going from the supply point to the beach:

a) Test condition (towing, not towing)
b) For towing condition:

(1) Type trailer
(2) Trailer condition (loaded, not loaded)
(3) Type of load, when applicable
(4) Load weight in pounds, when applicable

c) Type of terrain traversed (sand dunes, marsh, etc.)

(1) Soil trafficability readings, when applicable

(2) Difficulties encountered traversing various trails/roads
(3) Mileage over each type of terrain
(4) Time, in minutes, required to traverse each type of terrain
(5) Maximum speed, in mph, attained on each type of terrain
(6) Vehicle's braking performance on each type of terrain
(7) Vehicle's maneuverability in each type of terrain

3) Record effects of corrosive action

b. Retain all motion pictures taken.

6.3.4 Maintenance Evaluation

Record the following for each type of maintenance performed:

a. Data collected and recorded as described in applicable sections of MTP 2-3-502.
b. Type of maintenance
c. Description of maintenance action
d. Amount of lubricant used, if applicable
e. Time, in hours, required to perform each maintenance action
f. Number of personnel required for each maintenance action
g. Repair parts used
h. Modifications performed, if applicable

6.3.5 Human Factors

Record the following:

a. Data collected and recorded as described in applicable sections of MTP 2-3-516.
b. Ease of operation
c. Physical effort required for operation
d. Ease of maintenance action, if applicable

6.3.6 Safety Hazards

Record the data collected during the performance of testing as described in applicable sections of MTP 2-3-501.

6.3.7 Value Analysis

Record the following:

a. Non-functional features
b. Service personnel and test officer's comments.

6.3.8 Post Operation Inspection

a. Record the following:

1) Repairs required
2) Adjustments made
3) Lubrication and oil requirements
4) Deficiencies
5) All evidence of corrosion damage
6) Extent of corrosive damage

b. Retain photographs of all damages.

6.4 DATA REDUCTION AND PRESENTATION

Data obtained for each performance characteristic will be summarized and evaluated for each item tested. Appropriate charts and graphs will be used to summarize test data. Special consideration will be given to any condition or circumstance which will effect materially the performance of the test item.

Data obtained for each performance characteristic will be compared with established performance standards for the same type items if available and with the standard item of comparison when applicable.

Motion and still pictures will be identified.