

UNITED STATES MARINE CORPS
LOGISTICS OPERATIONS SCHOOL
MARINE CORPS COMBAT SERVICE SUPPORT SCHOOLS
TRAINING COMMAND
PSC BOX 20041
CAMP LEJEUNE, NORTH CAROLINA 28542-0041

B115-1

STUDENT OUTLINE

MOBILE LOADING VEHICLES

LEARNING OBJECTIVES

1. **TERMINAL LEARNING OBJECTIVE:** Given supplies and equipment to be embarked, necessary tools, equipment, and material, information concerning the specific type of ship, aircraft, or conveyance to be used, and the references, prepare supplies and equipment for embarkation to ensure compliance with the requirements of the specific type of ship, aircraft, or other conveyance to be used, per the references. (0431.04.01)

2. **ENABLING LEARNING OBJECTIVES:**

(1) Given a vehicle to be mobile loaded, equipment and supplies to be embarked, and the reference, mobile load a vehicle per the reference. (0431.04.01g)

(2) Given a unit's equipment and supplies to be embarked, and the references, identify the procedure for mobile loading a vehicle per the references. (0431.04.01ah)

(3) Given a unit's equipment and supplies to be embarked, and the references, identify the procedure for securing a mobile loaded vehicle per the references. (0431.04.01ai)

(4) Given a unit's equipment and supplies to be embarked, and the references, identify the procedures for water proofing a mobile loaded vehicle per the references. (0431.04.01aj)

OUTLINE:

1. **MOBILE LOADING DEFINED.** Mobile loading can simply be defined as any cargo that when added to a vehicle or trailer will change the original length, width, height, or weight or combination of.

2. **MOBILE LOADING FOR AIR MOVEMENT.** Vehicles and equipment should be prepared so as not to diminish their combat capability. They should be reduced only enough to meet the dimensional and weight restrictions of the aircraft that will transport them. All mobile loads are subject to the Joint Inspection as part of the overall vehicle.

a. **Accompany Load (Mobile Load).** Any cargo or equipment that is loaded onto or put into the back of a truck or trailer or added to the manufactures design of a vehicle.

(1) **Within Vehicle rated Capacity.** Do not exceed the rated capacity of the vehicle. Normally, this information is located on the vehicle data plate or applicable manufactures or service technical publication such as TM 11240-15/4B. Do not exceed sidewall height unless cargo can be properly restrained. Equipment permanently installed in a vehicle will be transported as a vehicle load regardless of height. This provision does not include signal shelters or other easily removed equipment.

(2) **Secure to Vehicle.** Check that all secondary cargo is properly secured to the vehicle and will meet the same restraint criteria required for the vehicle. Use a minimum of one-half (1/2)-inch diameter rope (not nylon) for cargo restraint. After removal of the bows from the vehicle, (5-Ton truck or trailer with canvas top) stow the bows in the cargo bed. Load the secondary cargo and spread the vehicle canvas over the top of the cargo, not just over the side racks. Run sections of the rope fore and aft and side to side to the outside vehicle tie down points. Consider all locally manufactured modifications as secondary cargo. Ensure rope actually touches cargo, not just holding the side racks down. After securing any secondary load in the vehicle cargo bed, weigh the vehicle and compute the vehicle CB. Once weighed, do not add or remove any cargo. If the load is changed in any way, it must be weighed again.

3. **MOBILE LOADING FOR AMPHIBIOUS SHIPPING.**

a. **Mobile Loaded Cargo.** Mobile-loaded cargo consists of items that are preloaded in LF vehicles before embarkation. Planning stowage of mobile-loaded cargo is accomplished concurrently with the planning the load of the vehicles concerned. However, embarkation planners must ensure that vehicle stowage makes adequate allowance for the increased weight and possible change to external configuration (height) resulting from each vehicles mobile load.

b. **Securing Cargo.** Cargo loaded in vehicles should be securely cross-lashed giving special attention to any small and light items so they won't be sucked out the back of trailers or truck beds and present themselves as Foreign Object Damage (FOD) hazard to LCAC's props. Lastly ensure mobile loads are supporting the landing plan with consideration for overhead clearances in order to prevent the splitting of landing serials between decks because of mobile-loading cargo.

4. **MOBILE LOADING FOR RAIL MOVEMENT.** When preparing mobile loads for rail movement your loads will be secured in accordance with the most restrictive mode of follow on transportation. If movement involves inter-modal, i.e., rail to highway, vehicles and equipment must be prepared to most restrictive standard for the modes of transportation used.

a. **Securing Cargo.** Mobile loads will be secured with a minimum of ½ rope or 5,000lb cargo straps or a combination of both. Cover all your secondary loads with a trap.

5. **MOBILE LOADING FOR SURFACE MOVEMENT.** The driver of a military cargo vehicle is responsible for the safety of the load. The unit is responsible for loading and unloading the vehicle. Securing the cargo is a shared responsibility between the two. The truck driver will advise in securing the load and check to ensure it is safe for movement. The majority of supplies and equipment you will ever present for transportation, as a mobile load will most likely travel overland in a trailer or in the back of a truck. General cargo can categorized as loose, palletized, or containerized. Improperly placed cargo can make vehicles unstable and difficult to control. It can also overstress the frame. Of course, you should never overload a cargo vehicle.

a. **Cargo Capacities.** The vehicle data plate shows the rated cargo (payload) capacity. The names of most military cargo vehicles also tell the payload capacity. The rated

cargo capacity is for a vehicle with a properly distributed load. All Marine Corps vehicle cargo capacities can be checked in the Motor Transport Technical Characteristics Manual TM 11240-15/4B. Careful attention must be paid on the terrain the truck or trailer will be traveling on because more often than not the capacity will list a cargo capacity for both highway and cross-country. Always secure a load, even if the trip is just a short distance on a military installation. A jolt, during starting or stopping, or a road vibration could topple an unsecured load. Accidents caused by unsecured loads have occurred on trips of less than one-tenth mile. Overland mobile loads will be secured with a minimum of ½ rope or 5,000lb cargo straps or a combination of both. Cover all your secondary loads with a trap.

b. **Responsibility of Cargo via Commercial Shipment.** A commercial truck driver is responsible for securing exposed loads. Therefore, military personnel will rarely secure loads on commercial flatbeds. Even when military personnel load and help tie down cargo, the truck driver is still responsible for ensuring that the tie down arrangement is safe.

6. WATER PROOFING. Water proofing mobile loaded cargo in vehicles can be accomplished with the following:

- Plastic bags. Simply stowing the contents of a box inside a plastic bag and throwing in some desiccant can save time and money.
- Watertight inter containers (ammo cans, etc.).
- Use watertight outer containers (PALCON, QUADCON, etc.).

REFERENCES:

1. DOD 4500.9, DEFENSE TRANSPORTATION REGULATION, PART III, MOBILITY
2. AMC AFFILIATION PROGRAM SUPPORT PAMPHLET 36-1
3. TM 11240-15/4 MOTOR TRANSPORT CHARACTERISTICS MANUAL
4. JOINT PUB 3-02.2 JOINT DOCTRINE FOR AMPHIBIOUS EMBARKATION