

## **Attachment 2**

**Addendum 1 to Group Chairman's Factual Report  
Operational Factors / Human Performance**

**DCA00MA026**

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**PALLETIZED LOADING AND OFFLOADING**

1. General

**WARNING**

On DC-8 Aircraft the use of a tail stand is required. A tail heavy condition could occur under certain loading or offloading conditions. During all loading and offloading operations, the center of gravity shall be constantly analyzed to ensure that it does not go AFT of Station 920. If a tail-heavy condition could develop, take immediate steps to adjust the load.

**CAUTION**

Prior to loading pallets, visually check and ensure that pallets are not damaged. Pallets with torn skins and edges and surface irregularities such as gouges, waviness, punctures, or delaminations can cause severe damage to the cargo loading system and/or aircraft floor and lining. Ensure that tie-down straps or other restraining hardware on loaded pallets is installed so as not to drag beneath pallet during loading and offloading operations.

- A. Loaded pallets should be identified according to the pallet position they are to occupy to aid in maintaining control of weight, balance, and profile dimensions in accordance with previous Chapters.
- B. Pallets should be arranged on the ground handling equipment so that they can be installed in the required sequence without unnecessary handling.
- C. Ensure that all the aircraft cargo loading system is installed, in working order and that the side rails and side latches are positioned to accommodate pallet size and aisle. Lower latches in Position 2 prior to loading operations.

**CAUTION**

Visually check and ensure that the cargo loading system assemblies are not damaged and that dirt, debris, etc., is not interfering with their correct operation. Damaged components, or components misaligned and not correctly installed will interfere with loading operations and possibly damage pallets. Debris beneath pawls of end restraint fittings will cause pallet hang-up and damage.

- D. Ensure that the forward cargo barrier/barrier net is reinstalled and smoke barrier curtain resecured.

**NOTE**

Report any cargo barrier/barrier net deficiencies on Problem Report Form (Chapter 11, FIGURE 11-1) and notify Maintenance.

- E. Lower all fold-down type end restraint fittings during loading operations. If less than all pallet positions are being used, install four rigid end restraint fittings at aft edge of last position used. Maintenance must be notified to move rigid or restraining locks.
- F. Install the forward and aft cargo door sill assemblies as shown. (Chapter 5)
- G. Move ground handling conveyor into the loading position beside aircraft. When loading the aircraft, raise the ground handling conveyor platform to a height approximately one inch above the rollers of the Aircraft Conveyor System.
- H. Observe the following:
- 1) When a lift type platform is being used to load the aircraft, employ the following procedures:
    - a) Raise lift platform so that loaded pallet is approximately one inch above the rollers of the Aircraft Conveyor System.
    - b) Move loaded pallet into the aircraft approximately one foot and then lower the lift platform slightly to permit the protruding portion of the pallet to rest on the rollers of the Door Sill Guard/Conveyors.
    - c) Continue moving pallet into aircraft until approximately one foot is remaining on the lift platform. Slowly lower the lift platform until the pallet is completely supported by the Aircraft Conveyor System.
  - 2) Carefully control the relationship of loading platform height to aircraft conveyor system so that normal deflections, as loaded pallets are moved from platform to aircraft, are minimized. This reduces wear that must otherwise be absorbed by Pallet and Loading System.
    - a) Do not slam ULD's into locks, siderails or ballmats. ULD's should be walked through the aircraft, avoiding sudden jolts to floor locks. Transfer ULD's from loader to upper deck of aircraft with minimal impact to starboard sidewall, opposite cargo door.
      - (1) Problems encountered with rollers, locks, siderails or ballmats should be reported on Problem Report Form (Chapter 11, Figure 11-1).
    - b) Ballast Position, no matter what type aircraft you are loading, nothing should be pushed past the wings without a ULD in Position 1. Use the heaviest ULD available to you when you commence the load for this "ballast" and then push it back when the ULD you have planned for Position 1 is tendered to you.
    - c) Double check belly compartments, all stations must check all belly compartments for freight, even if the manifest indicates belly to be empty or not containing freight for your station. Transit cities should check a few boxes to ensure their freight isn't mixed with the downline station and origins should check to ensure that all bellies are empty.
    - d) ULD's in Doorway, ULD's should not be brought into the cargo door area unless the loader or forklift is in position to accept them.

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- e) Loading Hazmat: (Dangerous Goods Manual AIR-0206) as you learned during your HAZMAT training, you are an integral part of the HAZMAT shipping process. If you consider any piece of Hazmat suspect (i.e. no paperwork, poor packaging, incorrect info on paperwork) do not load it on the aircraft. As soon as you identify the problem, notify local EWW representative for assistance. Additionally, you must always know where you have loaded these shipments. Also, load with extra care.

## 2. Install Loaded Pallets

### A. Install pallet in Position 1

#### NOTE

Pallet 1 should be installed prior to installing remaining pallets. The pallet placed in Position 1 should be loaded to a weight which will provide the optimum in maintaining the aircraft within center-of-gravity limits during loading and offloading operation, yet still not exceed the pallet or aircraft's limitations. On the DC-10, both Pallet 1R and Pallet 1L are to be loaded first. The remainder of the aircraft may now be loaded by moving the last pallet into position and opening the locks. As you continue forward, the last pallet loaded on the aircraft should just slide into the open pallet locks.

- 1) Only in an exceptional situation, should cargo containers be loaded where nets/covers for two containers face each other. Failure to adhere to this procedure can result in the facing nets becoming entangled. The remedy for such an event is extremely costly and damaging to the container, cargo and schedule.
- 2) On DC-8 and DC-10 all container nets should face forward in the aircraft.
- 3) Key members of the ground crew should have a clear knowledge of the load plan for all uploads and the Manifest for all downloads. This procedure is required so that a double check is in place to detect errors. Both ground transfer personnel and top side compartment personnel should be vigilant for any discrepancy in sequence from the alerted MANIFEST or the planned load. ULD tags should be monitored where warranted to detect and prevent problems related to mis-tagged containers.
  - a) Position ground handling equipment at cargo door.
  - b) Install Door Sill Guard/Conveyor assemblies. (Chapter 5)
  - c) Move pallet into Position 1 and position the pallet against the rigid end restraint fittings at forward end of Position 1.
  - d) Raise and lock end restraint fittings at aft end of Position 1.

B. Install Pallets in last Position through Position 3

**CAUTION**

Before moving loaded pallet from Position 2 into final position, analyze the effect of the load being placed AFT upon the balance condition of the aircraft. If a tipping condition could occur (see Chapter 7) immediate action is required. It may be advantageous to move pallet AFT to a temporary position, place another loaded pallet in Position 2, move pallet AFT to another position, repeating until the condition is overcome and the pallets are in final position.

- 1) Move the pallet through the cargo door onto the Ball Transfer Conveyors. Align the pallet with the end restraint fittings at aft end of Position 1 so as to aid in guiding pallet.

**NOTE**

Pallet may be loaded through the cargo door with either the long or short side parallel to door. The pallet is then rotated 90 degrees on the Ball Transfer Conveyors as it is moved into the aircraft.

- 2) If pallets being loaded are 53 x 88 inch, raise the center guide fittings in pallet position being loaded.
- 3) Move pallet into position and raise the end restraint fittings at forward end of each position into locked position. If pallet is in Position 3, also raise and lock the side restraint latches.

**CAUTION**

If less than all pallet positions are being installed, ensure that end restraint fittings at aft end of pallet are also raised and locked.

C. Install pallet in Position 2

- 1) Move pallet into position, raise and lock the side restraint latches.

3. Remove Loaded Pallets

**CAUTION**

Before removing pallets, analyze the effect of the load removed on the balance condition of the aircraft. If a tipping condition could occur (see Chapter 7) immediate action is required. It may be advantageous to reposition the remaining pallets to a more forward position.

- A. Lower the side restraint latches in Ball Transfer Conveyors in Position 2
- B. Remove pallet from Position 2
- C. Remove pallets from Positions 3 thru last position
  - 1) Lower end restraint fittings at forward end of pallet
  - 2) Move pallet into Position 2 and remove pallet

**NOTE**

**If 88 x 53 inch pallets are used, lower the center guide fittings as each pallet is removed.**

- D. Remove Pallet from Position 1
  - 1) Lower end restraint fittings at aft end of Position 1
  - 2) Move pallet to Position 2 and remove pallet.
    - a) Before dispatching aircraft, all operable locks should be raised, including those in void positions. A double check of all locks in void positions is required. Unusable locks must be brought to the attention of a flight crewmember.
    - b) Insure that your outbound documents are inserted, and that inbound documents are removed. Most Emery system aircraft are equipped with a document holder, or metal box, mounted to the bulkhead just aft of the cockpit access door. Station copies of hazardous materials documents, and company mail ("COMAT") are transported through this holder. Often, the EWW Supervisor will place or remove items from this holder. In any event, you are expected to double check and remove all appropriate items for sort locations serviced from your station.
    - c) Barrier net locks will always be locked in before dispatching aircraft. Missing or inoperative barrier net locks should be brought to the attentions of the flight crew and noted on problem report form.

**4. Disabled Aircraft with Stranded Cargo.**

- A. Handlers should never leave a disabled aircraft that still has freight onboard. Even if your service window hours have expired, handlers must remain with the aircraft or call HDY operations control (1-800-338-3471 or 937-264-6330) for further instructions. The freight has to move.
  - 1) The handler must remain with the aircraft until: (1) The aircraft is declared "green" and departs, (2) The freight is offloaded and reloaded onto trucks or second aircraft, or (3) Operations Control/HDY authorizes handler to leave aircraft.



B. The manifest from HDY should indicate the location of the envelope bags on your aircraft. Any problems in locating these important shipments should be brought to the attention of the Emery representative as quickly as possible and prior to departure.

5. Aircraft Loading Procedures

A. Never throw a piece of freight

B. Follow orientation/directional arrows

C. Watch for "fragile" markings

Even when performing a 45-minute turn on a fully-loaded DC-8-73/63, these guidelines should be followed.

D. Belly freight

Particularly vulnerable to external damage and must be handled with care.

E. Beltloader freight

Must be PLACED/STACKED into a belly hut.

F. Belly freight

If belly freight comes to you from the Hub damaged, it should be set aside, noted on Daily Operations Report (DOR), and reported to the EWW representative.

G. Sacking bulk freight

When sacking bulk freight, you should always keep large, heavy boxes on the bottom and place the small, lighter boxes on top.

6. Shock-Watch Tip and Tell Shipments.

A. Many of the shipments that EWW handles for our customers consist of sensitive materials, such as computers and their various components. To insure that the shipment is properly handled, several of the manufacturers and shippers have installed devices that are designed to "activate" once rough handling has occurred. Such devices are commonly known as "shock-watches" and "tip-and tells". These devices are not always installed on the exterior of packages, but can be placed on the inside as well! Once the cargo has been dropped, tilted, or simply handled roughly, the device will activate, alerting the customer upon his/her inspection. An activated device can be cause for a claim to be filed on behalf of the shipper or consignee. In order to prevent such claims and unhappy customers, we emphasize that directional arrows and orientation instructions always be followed as well as proper handling procedures. Should you receive a shipment that has already been activated, notify the EWW representative.

7. Belly Freight Limitation

The maximum weight allowed for a single piece loaded in the belly is 250 pounds. Long awkward pieces are to be loaded from the beltloader only. Do not use a forklift to maneuver cargo into or out of the belly.

Mice boxes that are damaged so that a mouse might escape cannot be loaded on an aircraft. If a box of this description is found during the offload, it should immediately be brought to the attention of the flight crew and EWW representative.

8. Transit Station Ground Time

Since there is minimal loading time during a transit stop (30 minutes for all type aircraft except our DC-8-63/73 flights) it is imperative that these stations do the following to speed up the loading process:

- 1) Pre-stage the ramp.
- 2) Notify crew of load complete while you are putting the last ULD onboard.

NOTE

This is important because flight crews are allotted 9 minutes (DC-8, DC-10) to do final paperwork, Close doors, and block out. The sooner they get this information, the sooner they block out.

- 3) Give load plan to flight crew ASAP.

9. Offload and Freight Availability Goals

Even as EWW should tender freight to you in a timely manner you must make it available to them in the same way. The following chart lists offload goals:

Type Aircraft	Offload Time	Availability Goal
DC-8 - 54/62	25 minutes	35 minutes
DC-8-63/73	30 minutes	40 minutes
DC-10	45 minutes	50 minutes

OFFLOAD AND FREIGHT AVAILABILITY GOALS  
FIGURE 8-1

10. Security

All Ground Handling Agency (GHA) personnel must have Airport-issued current I.D.'s. The FAA is checking I.D.'s more now than ever before. If a person is found on airport without an I.D., it is a \$10,000 fine. In the case of a cargo tech accused of not being properly I.D.'d, the cargo tech and the vendor would be charged fines. The FAA could shut down (or delay) an operation due to improper airport I.D.'s. We cannot tolerate a service failure due to a controllable factor such as I.D.'s.

11. Overlooked/Missed Freight.

If the aircraft departs without a shipment, you should ensure that operations control is informed of the situation as soon as possible. Do not take it upon yourself to have ATC call the aircraft back. Instead either you or the EWW representative should call Operations Control 1-800-338-3471 or 937-264-6330 to let them make the decision.

12. Freight Tender Requirements.

Freight should be tendered 30 minutes prior to scheduled time departure (STD). If freight is late, it remains your responsibility under all circumstances, to dispatch the flight on time with all of the freight if possible. If freight has to be bumped, you must ensure that Operations Control (1-800-338-3471 or 937-264-6330) is notified by you or the EWW representative. It is expected that EWW will begin tendering freight 1 hour prior at DC-8 and DC-10 origins.

13. Load Plan to Crew.

As stated above the load plan should be given to the crew as soon as all weights are known. Their predeparture preparation includes final weight and balance computations and is part of the scheduled ground time. Therefore, the sooner they have the load plan, the more time you save.