

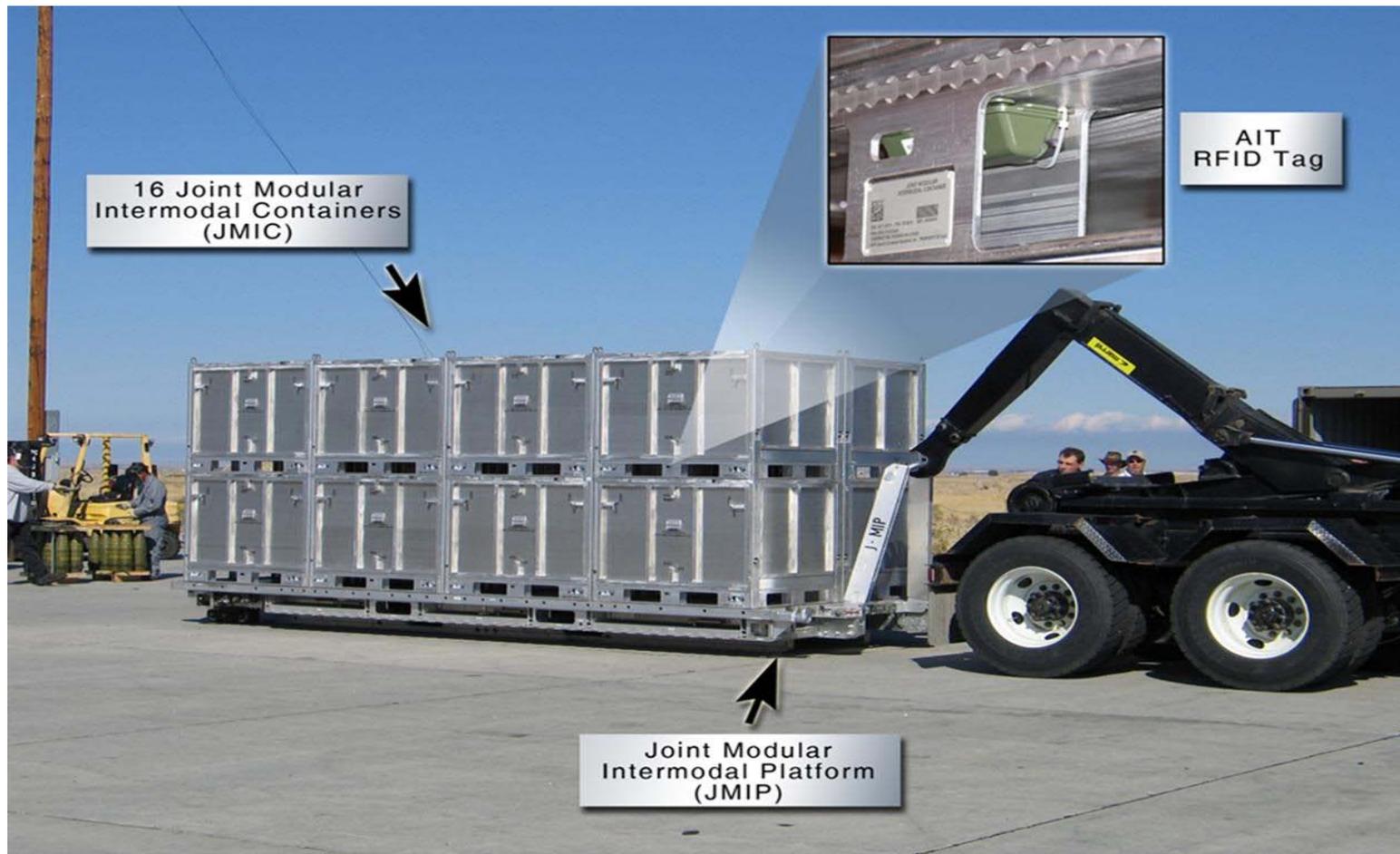


# JMIDS Extended User Evaluation Update

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# Executive Summary

**Goal:** JMIDS will make significant contributions to the agility, flexibility, efficiency, effectiveness, responsiveness, and interoperability of the Joint Distribution System and define the capabilities for a production system.



# Background

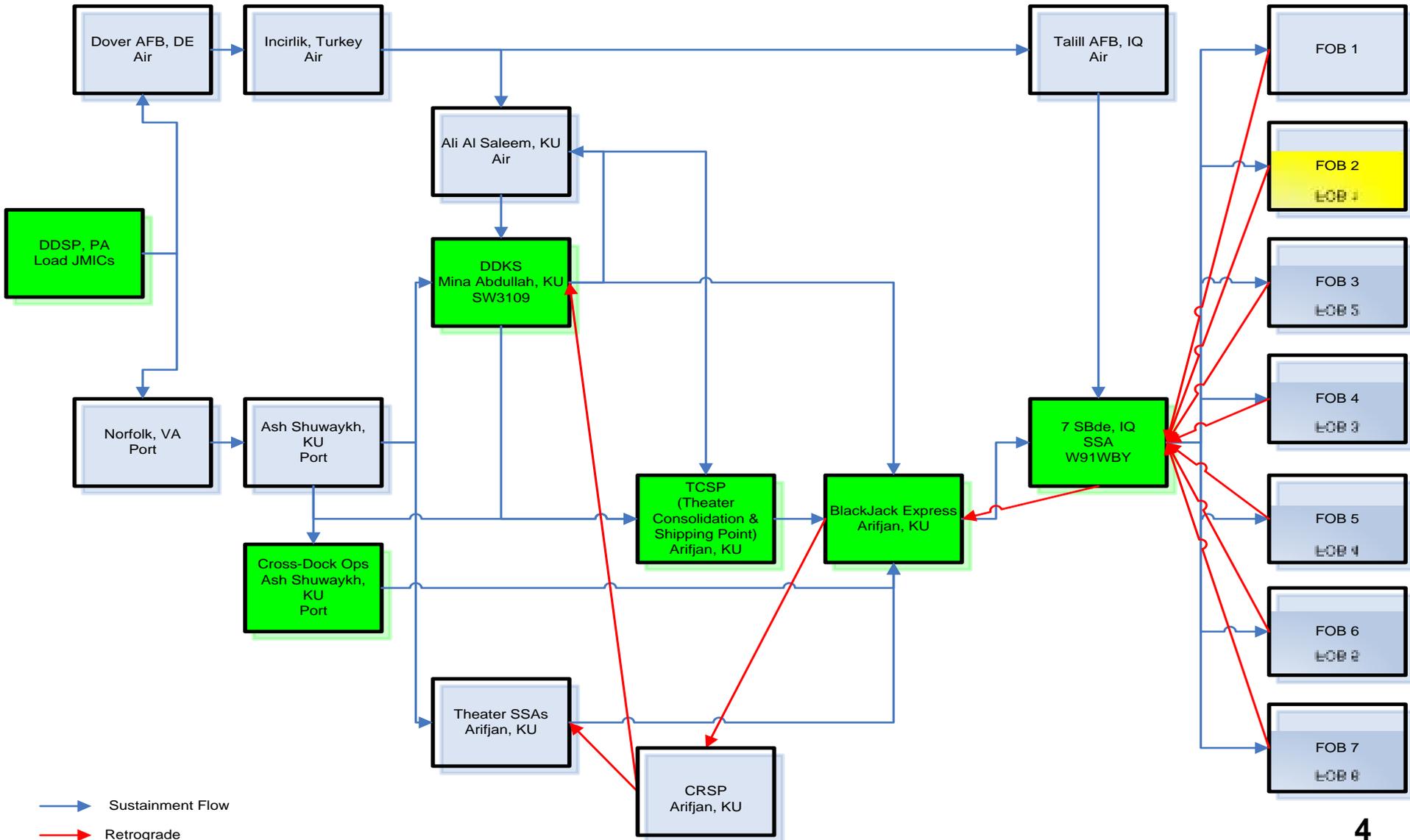
## 7 Sep 2007

- Provided the DLA Director, DDC CDR, USTC J5/4, DA-G4FPD, CASCOM CG, OSD AS&C, and 7<sup>th</sup> SB CDR with a JMIDS JCTD Update
- Proposed a JMIDS End-to-End (E2E) Extended User Evaluation (EUE) that would provide the opportunity to collect additional data to be used in support of JMIDS JCIDS documentation.

## 5 April – 21 May 2008

- EUE: DDSP to OIF SSA, closed-loop DDKS to SSA

# JMIDS EUE Overview



# DDKS Processes

- Current and JMIC process mapped
- JMIC introduced from MRO source in outlying warehouses
- Double-handling reduced with JMIC
- Current process metrics reduce opportunity for more efficient consolidation for both current and JMIC
- Conveyance loading times/efficiency much improved

# Customer Lane Whse 4



# Partial Pallet



# Partial Load from Whse



# Partial Load from Whse



# Consolidation Outbound



# Consolidation Outbound



# Potential Air Pallet Reduction

<b>TOTAL</b>	<b>Reconfigurable</b>	<b>After</b>	<b>% Savings</b>
14	8	4	50%
12	12	6	50%
22	19	10	47%
7	5	3	40%
17	8	4	50%

# Intra-theater Air Savings

- Reduce MRO double-handling at DDKS – pack at source warehouse
- Consolidate partial pallets from warehouses – optimizes geometric conveyance utilization
- Significant reduction in air pallets built – potentially 125-250 per week (25-50%)
- Fewer air sorties –
  - C130 = 25-50 per week
  - C17 = 7-14 per week
- Statistical Sampling – SME evaluation
- Continued Analysis – Configured Load Build Tool using RF Tag burning data

# Potential Air Pallet Reduction



# Potential Air Pallet Reduction



# Potential Air Pallet Reduction



# Potential Air Pallet Reduction



# Potential Air Pallet Reduction



# Potential Air Pallet Reduction



# Potential Air Pallet Reduction



# Line-haul Distribution

- Reduce MRO double-handling at DDKS – pack at source warehouse
- Consolidate partial pallets from warehouses – optimizes geometric conveyance utilization
- Fewer 20' Containers per BJE
- Statistical Sampling – SME evaluation
- Continued Analysis – Configured Load Build Tool using RF Tag burning data

# Potential 20' ISO Container Reduction - Geometric

<b>TOTAL</b>	<b>Reconfigurable</b>	<b>After</b>	<b>% Savings</b>
26	20	14	35%

# Potential 20' ISO Container Reduction - Efficiency

<b>Type Load</b>	<b>Pieces</b>	<b>Weight</b>	<b>% Fill</b>
Current	10	11,830 lbs	56%
JMIC	85	17,998 lbs	100%

# Before JMIC



# Before JMIC



# Before JMIC





# After JMIC



# After JMIC



# DDKS Process Improvements

- Consolidate at MRO source – reduces handling
- Reduces partial pallet build/breakdown – reduces F/L touches, conveyance loading times
- Improved conveyance utilization
- Improved in-transit cargo survivability
- Improved survivability of dangerous goods

# DDKS Improvements

- Improved ISO Container Blocking & Bracing
- Reduced double-handling (human & FL) with modified partial pallet consolidation technique
- Improved cargo survivability at consignee

*“100% improvement in cargo survivability”*

*W91WBY*

# DDKS Improvement – Before



# DDKS Improvement - After



# DDKS Improvement - After



# 7<sup>th</sup> SB Process Improvement

- Significantly improved ISO unloading times – 3 min/1 FL vs 60 min/1 FL & 2 laborers
- Reduced FL/RTCH touches
- Fewer ISOs to manage in a limited footprint
- Significantly reduced trash management
- Provides customer issue/retrograde packaging

# Way Ahead

- **Consolidate data collected during the EUE and package the results for presentation to the JMIDS stakeholders**
- **Provide the stakeholders (from 7 Sep 07) with a JMIDS update that reports the results of the EUE.**
- **Return in 4 months to assess status of closed-loop distribution system DDKS to 7SB to Arifjan to DDKS**
- **Transition JMIC to program of record**

# Potential Commodities



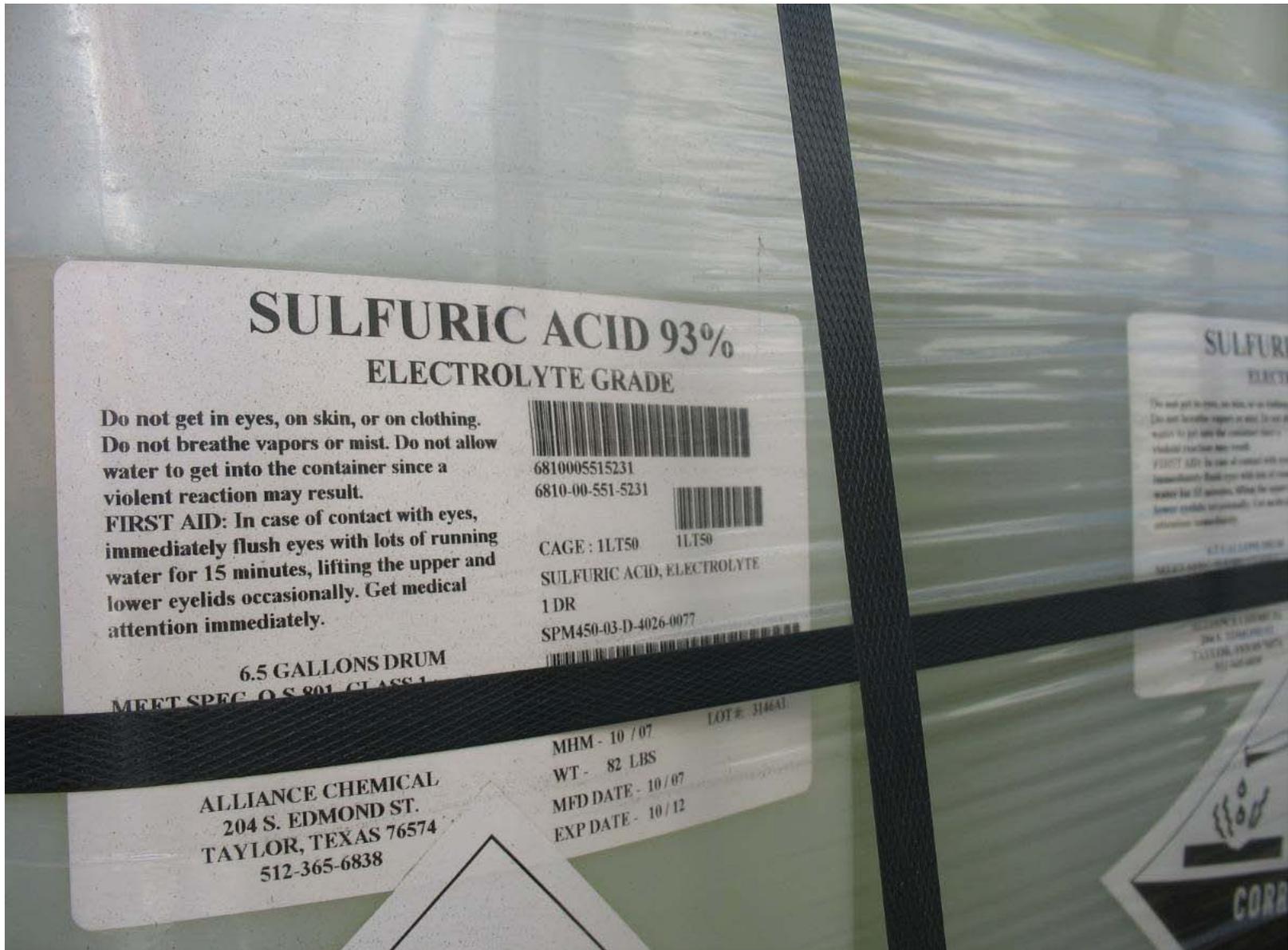
# Potential Commodities



# Potential Commodities



# Potential Commodities



# Potential Commodities



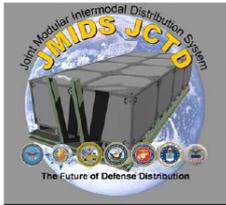
# Potential Commodities



# Backups

# Executive Summary

**Goal: JMIDS will make significant contributions to the agility, flexibility, efficiency, effectiveness, responsiveness, and interoperability of the Joint Distribution System and define the capabilities for a production system.**



## JMIC Technical Data

### JMIC Container Dimensions:

Overall height	43.00 inches
Stacking height	40.75 inches
Interface fitting height	2.25 inches
Width	51.75 inches
Depth	43.75 inches
Pallet Base height	6.06 inches
Fork Pocket openings	3.88 x 12.20 inches
Distance between fork pockets	6.00 inches
Interior width	48.75 inches
Interior depth	40.75 inches
Interior height	33.18 inches
Front/Rear access opening	48.75 x 33.18 inches
Top access opening	48.75 x 40.75 inches
Collapsed height	15.81 inches
Collapsed stacking height	13.56 inches

### JMIC Container Weights:

Overall weight (empty)	327 pounds
Maximum gross weight (loaded)	3000 pounds
Cover weight	36.75 pounds
Front/Rear panel weight	26.50 pounds

### JMIC Container Materials:

Extrusions	6061-T6 aluminum alloy
Sheet metal	5052-H32 aluminum alloy
Interface fittings	17-4 PH stainless steel
Pins and latch components	300 series and 17-4 PH stainless steel
Plastic components	UHMW-PE, nylon and polyurethane
Adhesives	Flexible Acrylic (two components)

### JMIC Container Features:

Interior/Exterior tie-down track	Conforms to ISO 7166 and MS33601
Cover latches	(4) slide latches
Front/Rear panel latches	(3) pin latches and (1) ¼ turn and slide latch
JMIC interface locking	(4) locks, one at each corner, operated from either 51.75 inch side
RFID Compatible	SAVI 654 tag holder located between fork pockets on 51.75 inch side



## Joint Modular Intermodal Platform (JMIP) Technical Data

### SEABOX: (One piece design)

#### JMIP Platform Dimensions:

Top dimensions	91.25"x231"
Bottom Dimensions	88" (108") x 231"

#### JMIP Platform Weights:

Platform Tare weight	4050 lbs
Maximum Gross weight	26,000 lbs

#### JMIP Platform Materials:

Extrusions	Aluminum Alloy
Top & Bottom Skins	Aluminum Alloy
A-Frame	High Strength Steel

#### JMIP Platform Features:

- Transportable on PLS/HEMTT-LHS
- Conforms to 88" and 108" aircraft logistics rail systems
- Transportable on C-130/C-17/ A/C
- Interfaces with commercial 747 roller systems
- A-Frame tilted 9 degrees to ease insertion/extraction from ISO container with LHS
- Rear rollers for wheel barrow lifting
- Hydraulically actuated PLS rails and rear rollers
- Direct load/offload of C-130/C-17 from k-loader without reconfiguration
- Securable for transport inside 20' ISO container.
- ISO locks on top deck for retrograde JMIP/CROP operations as well as ECDS platform transportation
- Retrogradable 8 high in ISO Container
- 32 retractable JMIC interface fittings on top deck
- RFID Compatible using SAVI 654 tag





21 March 2005

MEMORANDUM FOR THE OFFICE OF SECRETARY OF DEFENSE, CHAIRMAN JOINT CHIEFS OF STAFF, SERVICES, COCOMS, ACQUISITION COMMANDS, AND AGENCIES

SUBJECT: Joint Common Packaging / Containerization

Lessons relearned during OEF, OIF, and other current operations have reinforced the need for a standardized approach for packaging and containerization. To achieve this, we agree a common approach and set of standards must be adopted as quickly as possible. Common containers reduce cargo handling which results in faster distribution with less in-transit losses.

We recommend Commander, United States Transportation Command, as the Distribution Process Owner, coordinate and develop common joint packaging and containerization standards and that the already functioning Joint Intermodal Working Group serve as the action agency for this effort. The Joint Modular Intermodal Container (JMIC) concept, initially developed for ammunition but now broadened to include all classes of supply, is an example of a common modular package that can move throughout the Defense Transportation System (DTS). As a potential end-to-end packaging solution the JMIC meets all DTS constraints and Joint distribution requirements. It can be loaded at a depot, move globally via any means throughout the Defense Transportation System (DTS) without the need for repackaging, and arrive unchanged at the using unit. A common packaging and containerization capability such as the JMIC supports emerging operational concepts and architectures.

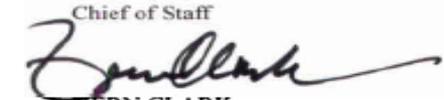
Service requirements offices and acquisition agencies shall take distribution, packaging, and containerization into account during planning and budgeting. Additionally, we recommend that distribution needs be identified during material solution briefings in the Joint Capabilities Integration and Development System (JCIDS).

When common standards are established, Services and acquisition agencies will have guidance to use in obtaining systems that will operate in the most effective manner within the DTS. The use of common packaging and containers will ensure cargo moves quicker, more securely, and offer a better opportunity to provide Automatic Identification Technology (AIT) information to the Combatant Commander. We are committed to this capability improvement for distribution.

  
M. W. HAGEE  
General, USMC  
Commandant of the Marine Corps

  
JOHN P. JUMPER  
General, USAF  
Chief of Staff

  
PETER J. SCHOOMAKER  
General, USA  
Chief of Staff

  
VERN CLARK  
Admiral, USN  
Chief of Naval Operations

End to End Distribution from a Depot directly to the Using Unit without repackaging, resulting in the JMIC arriving at the unit unchanged was not conducted during MUA 1, 2, or 3.

JMIC has proven itself in the tactical environment with it's inherent capability to: streamline distribution, keep cargo secure (during distribution and retrograde), and integrate AIT.

Demonstrating JMICs in a Strategic to Tactical scenario from a Depot to the User will allow the JMIDS JCTD Team to collect data for the Business Case Analysis and will showcase the JMICs inherent capabilities at the Strategic Level.