



Enhancing Airlift Planning and Execution in the Joint Theater Distribution System

RAND RESEARCH AREAS

THE ARTS

CHILD POLICY

CIVIL JUSTICE

EDUCATION

ENERGY AND ENVIRONMENT

HEALTH AND HEALTH CARE

INTERNATIONAL AFFAIRS

NATIONAL SECURITY

POPULATION AND AGING

PUBLIC SAFETY

SCIENCE AND TECHNOLOGY

SUBSTANCE ABUSE

TERRORISM AND

HOMELAND SECURITY

TRANSPORTATION AND

INFRASTRUCTURE

WORKFORCE AND WORKPLACE

Airlift planning and execution, part of the Theater Distribution System, are vital to combat support execution planning and control. Today's combat forces are expected to react quickly to any national security issue with a tailored, sustainable force. Lack of a reliable system for moving personnel and equipment can delay deployment and hinder sustainment. Certain problems observed during Operation Iraqi Freedom—such as cargo backlogs, apparently inefficient use of airlift, and lack of connectivity among information systems—suggest shortfalls in the current system for airlift planning and execution. To help address these concerns, RAND Project AIR FORCE (PAF) evaluated options for improving the airlift system in five major areas:

- **Processes.** The end-to-end movement system involves *supply-side processes* (providing forces); *demand-side processes* (requesting and employing forces in the theater); and *integrator processes* (prioritizing and allocating scarce resources). In the current system, these processes are fragmented, overlap, and are stovepiped, so that resource management decisions are not always related to overall operational goals. The separation of demand, supply, and integrator responsibilities can strengthen integrated movement planning. A closed-loop process that focuses on the effectiveness and efficiency trade-offs of alternative network options could improve decisionmaking on network designs. Metrics that show demand-side and supply-side trade-offs should be used to reinforce that there is no one right answer but rather a set of options with greater or lesser effectiveness and cost.
- **Organizations.** The current movement system consists of an ad hoc network of organizations with inadequate staffing, fragmentation, and stovepiping. PAF researchers explored such remedies as modifying responsibilities within existing organizations or creating a new organization to better support processes. In either case, enhancing existing organizations appears to be an important first step. Under this option, combatant commanders (COCOMs) are responsible for employing forces; the components and specified joint commands are responsible for providing forces; and the Secretary of Defense is the integrator between these organizations. This option would support agility in meeting dynamically changing battlefield conditions by having in-theater movement resources under the control of the COCOM. It would also strengthen joint strategic and operational planning and assessment while leaving tactical planning and execution responsibilities in the hands of the components, thus preserving unity of command.
- **Doctrine.** Any process and organizational changes will have doctrinal implications. Relevant portions of Joint Publications and doctrine that outline responsibilities for key actors will need to change to reflect the approaches described above.
- **Training.** Each commander of Air Force forces, COCOM, U.S. Transportation Command, and the 18th Air Force should be provided with trained personnel who are educated and experienced in multimodal (land, sea, and air) movement planning and execution and strategies-to-tasks methods and tools (those that relate military tasks that require resources to higher-level operational objectives).
- **Communication and information systems.** Currently, there are communication and information system disconnects between the Air Mobility Division and the component operational units and Air Terminal Operations Centers that are operated by different components. These disconnects make it difficult to determine requirements and schedule airlift effectively. A common systems architecture and decision tools should improve airlift efficiency and effectiveness.

These measures should help the Air Force and the Department of Defense ensure the effective and efficient movement of personnel and equipment to support future contingency operations. ■

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

Corporate Headquarters
1776 Main Street
P.O. Box 2138
Santa Monica, California
90407-2138
Tel 310.393.0411
Fax 310.393.4818

© RAND 2006

This research brief describes work done for RAND Project AIR FORCE and documented in *A Framework for Enhancing Airlift Planning and Execution Capabilities Within the Joint Expeditionary Movement System*, by Robert S. Tripp, Kristin F. Lynch, Charles Robert Roll, Jr., John G. Drew, and Patrick Mills, MG-377-AF (available at <http://www.rand.org/pubs/monographs/MG377/>), 2006, 150 pp., ISBN: 0-8330-3833-8. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

RAND Offices Santa Monica, CA • Washington, DC • Pittsburgh, PA • Jackson, MS • Doha, QA • Berlin, DE • Cambridge, UK • Leiden, NL



PROJECT AIR FORCE

THE ARTS

CHILD POLICY

CIVIL JUSTICE

EDUCATION

ENERGY AND ENVIRONMENT

HEALTH AND HEALTH CARE

INTERNATIONAL AFFAIRS

NATIONAL SECURITY

POPULATION AND AGING

PUBLIC SAFETY

SCIENCE AND TECHNOLOGY

SUBSTANCE ABUSE

TERRORISM AND
HOMELAND SECURITY

TRANSPORTATION AND
INFRASTRUCTURE

WORKFORCE AND WORKPLACE

This PDF document was made available from www.rand.org as a public service of the RAND Corporation.

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

Support RAND

[Browse Books & Publications](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore [RAND Project AIR FORCE](#)

[View document details](#)

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use.