AIR EDUCATION AND TRAINING COMMAND COST AND CAPACITY SYSTEM

Implications for Organizational and Data Flow Changes

Thomas Manacapilli
Bart Bennett
Lionel Galway
Joshua Weed

Prepared for the
UNITED STATES AIR FORCE

RAND

Approved for public release; distribution unlimited
The research reported here was sponsored by the United States Air Force under Contract F49642-01-C-0003. Further information may be obtained from the Strategic Planning Division, Directorate of Plans, Hq USAF.

Library of Congress Cataloging-in-Publication Data
Air Education and Training Command cost and capacity system: implications for organizational and data flow changes / Thomas Manacapilli ... [et al.].
p. cm.
Includes bibliographical references.
“MR-1797.”
ISBN 0-8330-3503-7 (pbk. : alk. paper)
UG638 .A65 2003
358.4'15'0684—dc22 2003024475

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.

© Copyright 2004 RAND Corporation

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from RAND.

Published 2004 by the RAND Corporation
1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
201 North Craig Street, Suite 202, Pittsburgh, PA 15213-1516
RAND URL: http://www.rand.org/
To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Fax: (310) 451-6915; Email: order@rand.org
The mission statement of the Air Education and Training Command (AETC)—“recruiting, training, and educating professional airmen to sustain the combat capability of America’s Air Force”—provides a good starting point for developing information requirements for training management. Combat capability is directly affected by the quantity and quality of trained personnel. And the provision of sufficiently trained Air Force personnel relies upon effective management of training production and, in turn, the cost and capacity of the training system. Arguably, AETC currently has difficulty assembling and using cost and capacity data in managing its training pipeline, particularly for technical training. We find that this is partly due to an organizational structure that is both too complex and too unclear and has overlapping decisionmaking responsibilities.

We developed a four-level model of management to evaluate the flow of data in the AETC training pipeline:

1. The corporate level validates and arbitrates training requirements. (See p. 18.)
2. The strategic training management level concentrates on the training system’s long-term effectiveness. (See p. 19.)
3. The training management level handles the day-to-day operations of training. (See p. 20.)
4. The direct training level delivers training in the classrooms. (See p. 21.)
Most data needed for informed decisionmaking in AETC exist at the bottom two levels but often do not flow adequately to the top two levels. Part of the problem is that strategic training management is split among multiple organizations: no central organization has the manpower to work capacity issues (e.g., addressing surge or limiting constraints), reduce Trained Personnel Requirements (TPR) shortfalls, evaluate quality information, develop cost methodologies for planning, and serve as the single advocate for technical training in the Air Force. As a result, data flow among training management organizations is ad hoc. (See pp. 33–53.)

We looked at how strategic training management was handled in other training organizations to help motivate our model and provide lessons for AETC. The Army has organized strategic training management at the functional level, with no intervening organizations between it and training management. Currently, the Navy has a very decentralized training operation but is conducting an extensive revision effort to correct disconnects discovered during its Executive Review of Naval Training. Our case studies of four major companies with large training programs show that although these companies employ different organizational designs, all have a clearly defined senior person responsible for organizing training and making strategic decisions. (See pp. 14ff.)

We recommend organizational and process changes at the strategic training management level (mostly residing in HQ AETC). We believe that a consolidation of the strategic management functions, within an organization probably headed by a two-star general, would, among other things, resolve many current data flow problems. We also recommend that methodological tools be developed, including simulations to evaluate tradeoffs in the training pipeline, in order to improve data combination and interpretation, particularly in the area of cost. It is also clear that AETC should have a central data “warehouse” for collecting cost and capacity data. We believe that a “real-time” minute-by-minute data tracking system is not warranted and would not be cost-effective. Finally, we recommend that cost and capacity data be fit into the AETC Decision Support System/Technical Training Management System (ADSS/TTMS) architecture already under development for training production data. (See pp. 56–60.)