

**AIR FORCE**



**HUMAN  
RESOURCES**

SYMPOSIUM

ON

NEW TECHNOLOGY FOR DEVELOPING AUTOMATED  
DATA-BASED SPECIALTY KNOWLEDGE TEST OUTLINES

Presented at

30th Annual Conference of the  
Military Testing Association  
27 November - 2 December 1988

U.S. Army Research Institute  
Alexandria, Virginia

**L A B O R A T O R Y**

**AIR FORCE SYSTEMS COMMAND**

**BROOKS AIR FORCE BASE, TEXAS**

SYMPOSIUM:

New Technology for Developing Automated  
Data-Based Specialty Knowledge Test Outlines

Paul P. Stanley, Chairman  
Chief, Test Development Division  
USAF Occupational Measurement Center

Presentations (20 minutes each):

Automated Specialty Knowledge Test Outline Procedures: A Management Perspective

Paul P. Stanley II, USAF Occupational Measurement Center  
Ronald C. Baker, USAF Occupational Measurement Center  
Joseph S. Tartell, USAF Occupational Measurement Center

Development of Automated Data-Based Specialty Knowledge Test Outlines:  
Current Procedures

Kathleen M. Longmire, Air Force Human Resources Laboratory  
William J. Phalen, Air Force Human Resources Laboratory  
Johnny J. Weissmuller, Texas MAXIMA Corporation  
Martin J. Dittmar, Metrica, Inc.

Automated Test Outline Development Research Findings

Johnny J. Weissmuller, Texas MAXIMA Corporation  
Martin J. Dittmar, Metrica, Inc.  
William J. Phalen, Air Force Human Resources Laboratory

Automated Specialty Knowledge Test Outline Procedures: A Development Team Perspective

John E. Williams, USAF Occupational Measurement Center  
Wendy L. Sotello, USAF Occupational Measurement Center  
Paul P. Stanley II, USAF Occupational Measurement Center

Discussant (20 minutes):

Jimmy L. Mitchell, Systems Engineering & Analysis Department  
McDonnell Douglas Astronautics Company

NEW TECHNOLOGIES FOR DEVELOPING AUTOMATED DATA-BASED  
SPECIALTY KNOWLEDGE OUTLINES

Paul P. Stanley II  
USAF Occupational Measurement Center  
Randolph Air Force Base, Texas

Specialty Knowledge Tests (SKTs) are key to the success of the Air Force's enlisted promotion system. This panel provides a status report on research aimed at translating computerized occupational analysis data directly into draft test content outlines for use by teams of senior NOOs assigned to construct SKTs. The papers discuss the long history of attempts to make complex CODAP data more usable by test writers, AFHRL's procedures to screen and reformat the data, research findings which indicate that the automated procedures work, and the perceptions of the test psychologists who used the automated procedures to develop operational SKTs. The discussant commended the panelists on the balanced approach they had taken, through discussion both of the problems and the accomplishments involved in the research. He further observed that MTA conferences provide an ideal forum for this type of interchange, encouraging a unique interaction of researchers and interested outsiders which could not otherwise take place.