LEADERSHIP RESEARCH FINDINGS AS APPLIED
TO THE OFFICER PERSONNEL MANAGEMENT SYSTEM

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LEADERSHIP RESEARCH FINDINGS AS APPLIED TO THE OFFICER PERSONNEL MANAGEMENT SYSTEM

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Approved by: J. E. Uhlmaner, Director

Research Problem Reviews are special reports to military management. They are usually prepared to meet requests for research results bearing on specific management problems. A limited distribution is made—primarily to the operating agencies directly involved.
BESRL's Behavioral Evaluation Research Division conducts research related to special manpower procurement requirements such as the identification of officer potential and special capabilities, the development of new and improved officer evaluation techniques for use at career decision points, and the systems design and test of a new and comprehensive officer evaluation system. The present publication surveys current requirements for change in officer selection, retention, career development, and utilization and examines research findings from BESRL's comprehensive officer prediction and evaluation research programs in relation to proposals for officer personnel management policies now under consideration. Content was adapted from a presentation given at the Human Factors Research and Development Conference, Fort Bragg, N. C., in November 1971.

The entire research task is responsive to special requirements of the Deputy Chief of Staff for Personnel, the Office of Personnel Operations, the U. S. Continental Army Command, and the U.S. Military Academy, as well as to the general objectives of RDT&E Project 2Q062106A722, "Selection and Behavioral Evaluation," FY 1972 Work Program.

J. E. UHLANER, Director
Behavior and Systems
Research Laboratory
LEADERSHIP RESEARCH FINDINGS AS APPLIED TO THE OFFICER PERSONNEL
MANAGEMENT SYSTEM

BRIEF

Requirement:

To indicate in what ways findings from BESRL's continuing research programs on officer leadership and evaluation can contribute to officer career management in the context of current and anticipated change in the concept of the Army's mission.

Procedure:

In a presentation before the Research and Development Human Factors Conference, Dr. Helme, Chief of the Behavioral Evaluation Research Division, reviewed requirements for change to meet challenges to Army leaders as defined in current Army analyses and proposal for action to meet those requirements through a new Officer Personnel Management System (OPMS).

Findings:

Salient aspects of Army officer leadership in need of improvement were summarized. Overall requirement was stated as the need to "develop a sense of participation and involvement without losing the control that is vital to military operations." To meet this requirement, officers, particularly those at lower levels of command, must set an example of commitment and must be able to maintain morale of men whose values reflect changed societal perceptions. Also emphasized was the requirement to "see to it that subordinates work up to their capabilities."

Major themes characterizing the three analyses reviewed are:

1. Need for the officer to develop an awareness of his own leadership behaviors in relation to his superiors and subordinates, to his organization in the Army, and to the Army in its societal setting.

2. Requirement to foster motivation and individual commitment to Army goals through 1) selection of leaders for jobs appropriate to their styles of behavior, 2) training of officers to handle problems flexibly, capitalizing on their individual styles of behavior, and 3) providing multiple routes to the top.

Utilization of Findings:

BESRL research findings on differential prediction are applicable to the proposed OPMS system which originally provided for four career progressions. Since the original presentation of the content of this publication, Army review of OPMS-1 has led to a revised proposal, OPMS-2.
The revised plan calls for early identification and preparation for a secondary career skill and for differentiation of career progression into command, functionalization, and specialization. BESRL research findings on differential prediction are equally applicable to OPMS-2 as to the four career progressions of OPMS-1.

Evaluation instruments and procedures have been developed that can provide information needed by management in selection and assignment decisions for effective career development.

The continuing evaluation process can also provide useful feedback to the officer on his own performance and help him in developing more flexible application of his leadership capabilities.
In June 1969, the Army convened a Leadership Workshop Conference at West Point on the theme of Leadership in the Post-70's. The summary report of that conference analyzed the situation challenging Army leadership and called attention to problems in the areas of race relations, discipline, and civil-military relations. The problems for research directed to leadership in the post-70's have now become the problems for action in the 70's (Figure 1).

The West Point conference findings emphasized requirements for change in leader selection, development, and utilization. How can Army leadership most effectively cope with the change and expansion of Army mission and technology on the one hand and societal change in America on the other? What are the requirements for change in leadership arising from societal change? What can study, analysis, and research on leadership provide as ways and directions of such change?

The Army has recently taken major steps to define more specifically the requirements for change in the leadership situation and to propose action to meet those requirements. Based on recent analyses, new proposals relating to military leadership have been made and incorporated in the following documents:

1. Leadership for the 1970's, a report of the method and findings of a study conducted by the Army War College. 1 July 1971.


3. The Officer Personnel Management System, from the Office of the Deputy Chief of Staff for Personnel, Department of the Army (Figure 2), 25 June 1971.

These three proposals constitute response to the challenges and requirements for change. They might be termed a three-pronged attack, the first concerned with typical leadership behaviors, the second with leadership training and development, and the third with organizational change to foster career development of the leader.

The West Point conference, the Army War College study, and the CONARC Leadership Board drew upon the combined resources of military expertise and behavioral science research on leadership. The resulting reports furnish concise statements of specific requirements and proposals for change. From the research side, findings are now available from a comprehensive longitudinal research program on leadership selection and evaluation conducted by the Army's Behavior and Systems Research Laboratory (BESRL). The objective of the present publication is to examine the
RAPID DEVELOPMENTS AND CHANGES IN

- ARMY MISSION
- MILITARY TECHNOLOGY
- SOCIETAL VALUES

REQUIRING THE LEADER TO DEMONSTRATE

- DIVERSE SKILLS
- SPECIALIZED KNOWLEDGE
- FLEXIBLE STYLES

Figure 1. Challenges to Army Leadership in the 70's.
WEST POINT CONFERENCE
ANALYSIS OF THE CHALLENGES
REQUIREMENTS FOR CHANGE

ARMY WAR COLLEGE
SURVEY & ANALYSIS OF LEADERSHIP PERCEPTIONS AND BEHAVIORS

"LEADERSHIP FOR THE 70'S" - 1 JUL 71

CONARC LEADERSHIP BOARD
SURVEY & ANALYSIS OF LEADERSHIP TRAINING STATUS AND REQUIREMENTS

"LEADERSHIP FOR PROFESSIONALS" - 31 JUL 71

ODCSPER, DA
SURVEY & ANALYSIS OF OFFICER PERSONNEL MANAGEMENT SYSTEM

"OPMS" - 25 JUN 71

Figure 2. Army response to challenges to leadership.
The West Point report took special note of the challenge which changes in societal values places on military leaders: decreased commitment to formal organizations and authority, increased expectations concerning meaningful work and participation. Such changes in values pose a dual requirement: first, a requirement to identify and develop leaders capable of understanding and motivating men with such values, and second, a requirement for the Army to attract and retain such leaders. To quote from the report: "It was agreed that a critical problem for the military is how to develop a sense of participation and involvement without losing the control that is vital to military operations." A key problem perceived in developing leaders to meet these requirements was that an individual's basic personality structure develops early in life and is expressed in unique behavioral styles. Thus, training alone cannot produce leaders so flexible as to fit every situation. It is therefore important to select leaders for jobs to which their personal behavior patterns are most appropriate. Training can help them to manipulate situations flexibly to fit within the broad potentials of their patterns. Here, the key is developing in the leader an awareness of self, of his group, and of the Army in its relation to the society to which it belongs. Finally, the conference consensus was that better utilization of leaders requires more specialization in broad functions and providing officers with multiple "routes to the top in career development."

In the Army War College study, a questionnaire on general leadership behaviors was administered to a sample representative of a wide range of military grades. Evaluations of behavior by incumbent, superior, and subordinate were obtained. The majority indicated satisfaction with Army leadership, ranging rather consistently upward from 63% at the junior NCO level to 98% at the general officer level. While Army leadership principles were considered valid, application of principles was found wanting. For instance, setting an example and maintaining morale, knowing the men and their capabilities, were seen as the most frequent shortfalls at junior leadership levels. Effective communication and constructive criticism of subordinates were the problems most often perceived at higher levels. Officer performance in seeing to it that subordinates worked up to their capabilities was evaluated as deficient at almost all levels. An officer's misperceptions of his own leadership performance—the leader's view being more positive than that of others—were identified at all levels, again with large differences between levels on each particular behavior (Figure 3).


AT LOWER COMMAND LEVELS

- Setting Example, Maintaining Morale
- Knowing One's Men and Their Capabilities

AT HIGHER COMMAND LEVELS

- Effective Communication with Subordinates
- Constructive Criticism

AT ALMOST ALL LEVELS

Seeing to It that Subordinates Worked Up to Their Capabilities

SELECTED RECOMMENDATIONS

- Performance Counseling: Communicate, Understand Expectations
- Coordinate Field Leadership Surveys

Figure 3. Leadership behaviors needing improvement (selected from Army War College Report)
From the many recommendations of the Army War College study, two are particularly relevant to the concerns of participation and involvement: 1) performance counseling to enhance communication and understanding of specific expectations between superior and subordinate, and 2) coordination of field leadership surveys in order to preclude evolution of an anti-leadership syndrome. The former recommendation relates explicitly to the leader's awareness of his own and his subordinates' behavior in the leadership situation. The second provides direct input on the question of leadership trends in the Army as an organization, vis-a-vis the individual leader and soldier.

The issues of participation, involvement, and more flexible management skills are underlined clearly in the concluding words of the Army War College report: "The task for Army leadership is to ensure that . . . the professional soldier will view his relationship with the Army as one which is supportive and which builds and maintains his sense of personal worth. . . . The Army's investment in . . . his human values will, in time, create the loyalty and dedication which are the cornerstones of true discipline." 3.

The CONARC Leadership Board report reflects the young soldier's felt needs for "participation, understanding, and individuality" 4 and goes on to advocate that "leadership behavior must be both flexible in technique and personal in application in order to motivate the individual, promote and maintain . . . discipline, and foster esprit de corps." One finding from the report appears most relevant to the theme of response to societal change (Figure 4). The report notes that "leadership instruction in Army schools does not maximize learning through student involvement and corrective feedback to facilitate individual self-development" 5. The report calls attention to the need for "more instances in which students actually become involved or assume leadership positions under controlled conditions . . . experiential learning techniques (which) immerse the individual student in a real life-like situation which requires him to demonstrate his leadership skills and techniques" 6.

What major themes can be traced through these reports, then, in response to the issue posed at the West Point conference—"how to develop a sense of participation and involvement without losing the control vital to military operations"? First is the development of awareness of one's leadership behaviors in relation to expectations of superiors and subordinates. The War College study indicated the specific kinds of leadership

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FLEXIBLE IN TECHNIQUE

PERSONAL IN APPLICATION

MOTIVATE INDIVIDUAL

PROMOTE AND MAINTAIN DISCIPLINE

FOSTER ESPRIT DE CORPS

SELECTED RECOMMENDATIONS

MORE OPPORTUNITIES FOR STUDENTS TO BECOME INVOLVED OR ASSUME LEADERSHIP POSITIONS UNDER CONTROLLED CONDITIONS

IMMERSE STUDENT IN REAL LIFE-LIKE SITUATION REQUIRING HIM TO DEMONSTRATE LEADERSHIP SKILLS AND TECHNIQUES

Figure 4. Requirements for leadership behavior (from CONARC Leadership Board Report)
behavior in which such awareness is needed and provided feedback on the state of Army leadership in these domains. The requirement for feedback to the individual leader in training and in actual leadership performance was underscored in the CONARC Board report. Thus, one major theme may be defined as the requirement to facilitate in the leader the development of awareness of his leadership behaviors— not just the specific behaviors per se, however, but these behaviors in explicit relation to perception of himself as leader, to the group he leads as persons, to his organization in the Army, and to the Army in its societal setting.

A second major theme seems to be that of fostering motivation and participation. Specific recommendations to foster individual commitment to organizational goals are 1) that leaders be selected for jobs appropriate to their styles, 2) that they be trained to handle situations flexibly to capitalize on individual styles, and 3) that multiple routes to the top be provided.

These recommendations relate to findings from BESRL's research on selection and evaluation of officer leaders and to application of the findings to the Army's comprehensive proposal for organizational change—the new Officer Personnel Management System.

BESRL's research on officer leadership originated from two requirements: The Army Scientific Advisory Panel urged a study of combat officer selection utilizing situational performance exercises. The Deputy Chief of Staff for Personnel proposed a reexamination of the "generalist" concept of career officer utilization by comparing it with some form of specialization in broad domains. BESRL integrated the two requirements into a single design comprising differential predictor measures and development of differential situational officer tasks embedded in the context of a simulated combat environment. The research design was longitudinal (Figure 5). The first step measured the characteristics—physical as well as psychological—of lieutenants at point of entry on active duty. These officers were then followed up to obtain evaluations of performance and potential in their first-tour assignments. Next, a large sample of officers who had taken the tests at entry were selected to go through the controlled experimental exercise at BESRL's Officer Evaluation Center established for the purpose at Fort McClellan. This controlled field experiment constituted a unique example of a "life-like situation which requires (the officer) to demonstrate leadership skills and techniques"—to use the phrase of the CONARC Board report.

At the Officer Evaluation Center (OEC), a team of officers and men were assigned full time to put the officer subjects through a three-day sequence of tasks representing combat, technical, and administrative requirements, all in the setting of a simulated combat environment. As the last stage of the research, a BESRL team of scientists went to Vietnam and Europe to obtain performance ratings on those officers still in service who had been tested at entry on active duty about five years before. Thus, the research design included measures of leader characteristics at
I. MEASURE [Personality
    Background
    Knowledge] on ENTRY TO ACTIVE DUTY

II. EVALUATE Performance in FIRST TOUR OF DUTY

III. EVALUATE Performance of Prototype Tasks in SIMULATED COMBAT ENVIRONMENT

   Combat
   Technical
   Administrative

IV. EVALUATE Performance in

   REAL COMBAT
   COMBAT-READY
   ENVIRONMENT

   Vietnam—
   GERMANY—

Figure 5. Longitudinal research on officer leadership
entry, early evaluations of performance and potential, observations and
evaluations in a simulated combat environment, and later evaluations of
actual performance in Vietnam and elsewhere.

To review in brief the OEC simulation exercise, presented in detail
in other publications\(^2\)\(^-\)\(^2\), the lieutenant subject was typically assigned
to a simulated Military Assistance Advisory Group (MAAG) in a friendly
nation (Figure 6). The first day he carried out administrative tasks
involving interaction with officers of host nation units and technical
tasks presenting electronics and automotive problems. Four hours after
retiring, he was awakened at 0230, informed that an enemy invasion with
nuclear strikes had taken place, and assigned to tasks of directing by
radio road damage and radiation survey teams and working out emergency
logistics plans. After only a few hours' sleep, he was again aroused, the
headquarters was evacuated, and he undertook a night march to a combat
field site. His tasks for this day included leadership in setting up
a roadblock, deploying a platoon to defend a helicopter landing zone,
directing artillery fire, and leading a jeep-mounted reconnaissance patrol
in the course of which he was captured, interrogated, and ultimately re-
leased. Stresses ranging from time pressure and sudden situation changes
to simulated combat emergencies were introduced throughout. The partici-
pant-observer team of the OEC made extensive records and evaluations of
his actions throughout the exercise without his knowledge.

The extensive data resulting from this research were analyzed to
yield basic factors of observed leader behavior. The major finding was
that two main dimensions of leadership behavior were identified across
the situational tasks: combat leadership and technical-managerial leader-
ship (Figure 7). The difference between the two kinds of behavior lies
in the requirements of the particular problem situation. The field combat
problems required a more directive leadership style, characterized by
decisiveness, bearing and assurance, clear and forceful communication.
The technical and administrative problems required an understanding of
mission requirements and response to data inputs from the field. Thus,
there is a command of men factor on the combat side, as compared to exec-
utive direction on the technical-managerial side where participative
leadership may play a larger role. Note that mission persistence is in
the middle—a key behavior for both situations. The factors in the next
row are primarily a matter of acquired knowledge and skills. The leader-
ship behaviors most readily trainable are tactical skills on the combat
side, and technical skills on the technical-managerial side. Direction
of team is primarily a matter of specific instruction and functional
assignment of men. Finally, the last level is made up of opposite poles
of three of the leadership factors. These are behavioral factors of

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\(^2\) Willemin, L. P. Situational measurement at the Officer Evaluation
Center. In Leadership in the Post-70's, U. S. Military Academy, West
Point, N. Y. June 1969.

Report 1134. U. S. Army Behavior and Systems Research Laboratory,
DAY ONE

ADMINISTRATIVE & TECHNICAL PROBLEMS

NIGHT ONE

At 0200 hours the country is invaded

CONDUCT RADIATION & ROAD DAMAGE SURVEY

DAY TWO

PICK DEPOT SITES & MAKE HIGHWAY PLANS

NIGHT TWO

At 2300 hours MAAG Hq must be evacuated

FORCED MARCH TO NEW HQ

DAY THREE

FIVE FIELD COMBAT PROBLEMS

Figure 6. Continuity of the performance situations
Figure 7. General factors of officer performance evaluated in simulated combat situation
individual effort rather than of leadership. Personal resourcefulness is demonstrated in combat situations, while technical specialist behavior is more applicable to individual staff work. Technical tenacity seems to be akin to mission persistence, but on a level of individual effort only rather than in leading a group.

Such are the major dimensions of observed leadership behavior that emerged from analysis of the full-dress combat simulation. These dimensions can also be considered generic types of leadership that can be evaluated in a full simulation training exercise. Feedback to the leader in terms of specific actions can be made in the context of how effectively he uses his leadership styles flexibly to meet the varying demands of different leadership situations. Thus, it is possible to interrelate personal style, situational demands, and leadership effectiveness. The eight factors are likely to be only the core of what could be obtained in simulations involving, say, more participants to lead, and extending in time over an integrated leadership development program.

What about prediction of these behaviors for selection purposes—the assessment of differential leadership potential by psychological measurement techniques? The psychological measures given the lieutenants on entry to active duty were analyzed separately from the OEC analysis of behavioral factors. The major factors—factors of leader characteristics—that emerged are shown in Figure 8. These factors, by the way, were named independently of the OEC factors—the content of the tests which contributed to each factor determined the name given to the factor. These test factors are composed of different kinds of measures. There are measures of special knowledge and information; measures of attitudes, interests, and self-perception; measures of situational judgment obtained by presenting brief films of leadership problems in which the officer had to decide how he would handle the situation; and physical measures like the endurance crawl and grenade-type throw. In the analysis were some 92 reliable measures from which these factors emerged. Although the factor axes are orthogonal, some factor scores computed from the major components had moderate correlation. Thus, combat leadership and outdoor activity were so correlated, while mechanical technology, science, and general knowledge formed another loose cluster. Next, the relation of leader characteristics (the test factors on the left) to leadership behavior in the OEC situation (the behavior factors across the top) are shown in Figure 9. The findings demonstrate that one can predict differentially the major leadership styles: combat leadership vs technical-managerial leadership. In addition, trainability in tactical skills and technical skills can be reliably assessed.

The data in Figure 9 indicate the promise of selection measures for prediction of differential leadership potential. Assessment measures were far weaker in predicting such factors as mission persistence or command of men. For these dimensions of leadership there is still no substitute for behavioral evaluation. Such measures could be obtained by observation and evaluation in ROTC, OCS, and military academy settings and later at
Figure 8. Major factors of leader characteristics measured in the Differential Officer Battery.
<table>
<thead>
<tr>
<th>LEADER CHARACTERISTICS</th>
<th>COMBAT LEADER</th>
<th>TEC-MGR LEADER</th>
<th>TACTIC SKILLS</th>
<th>TECH SKILLS</th>
</tr>
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<tbody>
<tr>
<td>COMBAT LEADERSHIP</td>
<td>.36</td>
<td>-.05</td>
<td>.06</td>
<td>.16</td>
</tr>
<tr>
<td>OUTDOOR ACTIVITY</td>
<td>.14</td>
<td>-.18</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>MECH TECHNOLOGY</td>
<td>.14</td>
<td>.07</td>
<td>.13</td>
<td>.40</td>
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<tr>
<td>SCIENCE</td>
<td>.12</td>
<td>.37</td>
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<tr>
<td>GENERAL KNOWLEDGE</td>
<td>.12</td>
<td>.32</td>
<td>.26</td>
<td>.37</td>
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<tr>
<td>MANAGERIAL CONTROL</td>
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<td>.00</td>
<td>-.04</td>
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<td>ADMINISTRATION</td>
<td>-.10</td>
<td>.11</td>
<td>-.08</td>
<td>-.17</td>
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Figure 9. Prediction of leadership behaviors from measures of leader characteristics
evaluation centers. The new ROTC advanced summer camp evaluation system that BESRL has assisted CONARC in developing in the past two years is one application of such evaluation.

The proposed new Officer Personnel Management System has three main aspects to which the BESRL research is relevant. First, OPMS proposes differential career progressions to take the place of today's single generalist progression with its across-the-board career competition (Figure 10). Four major career progressions are proposed: combat arms, combat support arms, materiel and movements, and the specialized branches and specialist corps. As a further differentiation, at the level of major to lieutenant colonel, the plan calls for developmental assignments in two main lines within each of the four categories above—key command vs. staff assignments. Next, it proposes to differentiate higher education for officers into the military programs (Command and General Staff College and senior service college) on the one hand, and graduate education in a civilian university to develop specialized technical expertise on the other.

How do the results of BESRL research in selection and development of leaders apply to these major OPMS proposals? As can readily be seen, the two major research-based factors of combat leadership and technical-managerial leadership relate clearly to the line of differentiation from combat arms through combat support arms on over to the technical-managerial requirements of materiel and movements and specialist corps. The second row is concerned with the aspects of leadership involving interaction with men, requiring primarily personal, noncognitive qualities. Command of men relates to the command development concept and executive direction to key staff assignments. Mission persistence is equally essential to both. In the third row are the cognitive factors of knowledge and skill ranging from tactical through team direction to technical skills. One can readily perceive how these relate to differentiated types of officer training.

By way of conclusion, let us try to put the relationships between assessment of leader characteristics, evaluation of leadership behavior styles in a simulated armed conflict situation, and the career progression proposals of OPMS in the perspective of the challenges faced by Army leadership today (Figure 11). What contribution can the research-based techniques for selection and behavioral evaluation make in the three-pronged attack on the problem of adapting Army leadership to societal change?

The contribution of selection is obvious: By measuring basic enduring qualities of the individual, the Army can identify early potential for leadership. Such potential can be broadly differentiated. It becomes feasible to identify those men whose bent can be realized most readily in the combat command type of assignment, those whose bent is toward technical-managerial leadership, those who have capability for both kinds of military leadership to a high degree, and those who are not oriented by aptitude and personal goals in either direction. This last group is
Figure 10. Research in selection and development of leaders applied to officer personnel management system.
Figure 11. Research in selection and development of leaders applied to officer personnel management system.
more suitable for occupations that a military officer career does not offer. Applications of these findings goes beyond selection alone. A potentially more fruitful application is for ongoing evaluation to provide information for officer personnel management and to the individual officer. To the extent that broad differential avenues of career progression can be offered by the Army without forcing the capable generalist into a specialist mold, evaluation in the realistic simulations of training and readiness programs could well make a continuing contribution at career decision points.

However, more than selection or evaluation per se is involved. The leadership development process itself is the appropriate focus of all the recommendations offered. Instruments and techniques for selection and evaluation provide feedback to the individual about himself that can be related early to the opportunities and challenges offered by Army leadership as, for example, under the guidance of a Professor of Military Science in ROTC. Experience of one's self in a particular leadership role in training or other controlled simulation situation can now be interpreted in terms of leadership style and effectiveness of response to different leadership demands. The basic tools and techniques exist and can be developed within the matrix of operational training programs. Lastly, it seems unlikely that an individual could experience himself in relation to situational demands without undergoing some evolution in self-perception, interests, and goals which lead to career commitment. For the Army to offer its potential and developing leaders improved opportunities for such commitment could well be a cogent response to the societal challenge of today.