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CONSTRUCTION OF EXPERIMENTAL APTITUDE BATTERY FOR SPECIAL FORCE--ETC(U)  
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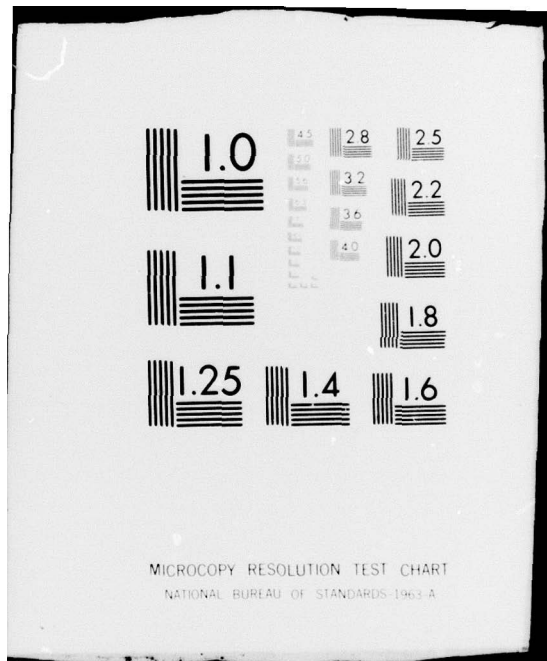
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Research Memorandum 64-9

**CONSTRUCTION OF EXPERIMENTAL  
APTITUDE BATTERY FOR SPECIAL FORCES  
ENLISTED PERSONNEL**

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6 CONSTRUCTION OF EXPERIMENTAL APTITUDE BATTERY  
FOR SPECIAL FORCES ENLISTED PERSONNEL

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CONSTRUCTION OF EXPERIMENTAL APTITUDE BATTERY  
FOR SPECIAL FORCES ENLISTED PERSONNEL

SELECTION OBJECTIVES

The U. S. Army Special Warfare Center has a requirement to develop techniques for the selection and classification of enlisted men who can be trained to perform effectively in Special Forces assignments. The assignments may encompass a variety of unconventional warfare and counterinsurgent activities, often under conditions of social isolation or close interaction with people whose cultural patterns are vastly different from those found in the United States.

During training, each man receives intensive instruction in one of the five Special Forces MOS. Attrition during training varies over time and from one MOS to another. Rates have averaged about 15 percent for weapons courses, and have reached high's of 70 percent in demolitions. Medics and communications also have high attrition rates. One problem, then, is to select from among the volunteers men who are capable of successfully completing their training and who will perform effectively when assigned to Special Forces missions. A related problem is to classify these men for MOS in a manner which will provide the Army with optimal return.

At present, men who enter Special Forces training must meet certain requirements. They are airborne qualified volunteers having a minimum age of 20 years, minimum General Technical (GT) Aptitude Area score of 100, and a minimum combined score of 400 on the Special Forces Selection Battery and the Infantry (IN) Aptitude Area. There are additional prerequisites for courses leading to the five Special Forces MOS: for medics training, minimum GT score of 110; for engineering and demolitions, score of 50 on a mathematics test developed by the Special Warfare Center; for communications, score of 100 on a test developed by the Center; for operations and intelligence, grade of E-5; for weapons, grade of E-4.

The tests now in operational use place emphasis primarily on cognitive variables. However, the unusual nature of Special Warfare requires that somewhat novel instruments be explored for possible use in improving selection and placement. The present Research Memorandum describes some newly constructed noncognitive instruments which have been included in an experimental Special Forces aptitude battery. This battery is currently being administered experimentally on a continuing basis to enlisted men as they enter the Special Forces Training Group at Fort Bragg, North Carolina. Data will be analyzed for selection of content for the instruments and constitution of the battery.

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## PSYCHOLOGICAL VARIABLES RELATED TO SPECIAL FORCES PERFORMANCE

Discussions with personnel at the Special Warfare Center and perusal of the descriptive literature on Special Forces led to identification of a number of psychological variables as promising predictors of Special Forces performance. One set of variables is cognitive in nature, since each man must attain a high level of proficiency in one MOS and some proficiency in a second MOS. Further, because of their unconventional nature, Special Forces assignments are likely to require special qualities of intelligence, ingenuity, and sound judgment. A second set of variables involves motivation and interest. Although the men are volunteers, the long arduous training, which may bring disappointments and frustrations, requires high motivation. Third, the unusual circumstances surrounding many Special Forces assignments would suggest the importance of personality variables. While on a mission, the Special Forces man may be subjected to extreme hazards and hardships, novel environment, or social isolation. He may be required to interact effectively with persons who speak a tongue foreign to him and who have customs and values which are different and unfamiliar. To meet these demands, unusual amounts of such characteristics as emotional stability, flexibility, and responsibility are needed.

### THE EXPERIMENTAL TEST BATTERY

Since a variety of operational tests exist for measuring the cognitive variables, no further test construction was undertaken in this area. The Army Classification Battery measures several aptitudes that have proved useful in predicting performance in Army jobs (Fuchs and Helme, 1961). Additional measures of mathematics aptitude--of particular relevance to the engineering MOS--and of code learning ability--of relevance to communications MOS--are provided by two tests developed by the Special Warfare Center. The Special Forces Selection Battery currently in use contains a spatial orientation measure (Locations Test) and a measure of practical judgment (Critical Decisions Test) which to some extent may be considered cognitive (Berkhouse, 1963). A measure of ability to learn foreign languages is available in the Army Language Aptitude Test (Berkhouse, Woods, and Sternberg, 1959).

In the noncognitive area, there are few operational measures. The Suitability Inventory, a component of the Special Forces Selection Battery, can be considered a test of emotional stability or general psychological adjustment. It was found to predict performance of Special Forces trainees on a field exercise (Berkhouse, 1963). The Classification Inventory, a test of the Army Classification Battery, contains personal adjustment, self-description, and interest items which predict combat infantry performance. The measure was also found to predict rated suitability for Special Forces (Berkhouse and Cook, 1961).

Construction of new experimental measures was concentrated in the noncognitive area. Experimental tests constructed for tryout as components of the new battery include:

#### PREFERENCE FOR ARMY DUTIES (PT 4331)

This instrument, adapted from a test developed for the Navy (Gordon and Alf, 1962) contains 30 triplets. Statements comprising the triplets describe various activities performed by Army personnel. For each item, the examinee selects the activity he "likes most" and the one he "dislikes most". The test yields scores on five interest scales: medical, mechanical, electronic, hazardous duty, and clerical. The first four scales are hypothesized to be particularly relevant, since they correspond closely to several of the Special Forces MOS. Total time required for administration is 30 minutes.

##### Sample items:

1. A) Repair shackles, chain locks, and metal brackets  
B) Using a map, drive a truck through a mine field  
C) Give first aid treatment for shock
2. A) Install wiring for communication systems  
B) Install fuses in bombs  
C) Weld cracked metal castings

#### SPECIAL FORCES ATTITUDE INVENTORY (PT 4472)

The Special Forces Attitude Inventory is a 14-item instrument reflecting attitudes toward, and information about, the Special Forces mission and training. The examinee registers the extent of his agreement or disagreement with each item, using a six-point scale. The items, which were constructed specifically for the present project, are designed to measure attitudes which might be conducive to the maintenance of high motivation during training and subsequent performance on missions. Total administration time is about 15 minutes.

##### Examples of items:

1. Because of the care with which men are selected for Special Forces training, very few of them fail their courses.
2. Special Forces personnel should be skilled as teachers and advisers rather than fighters.

## SPECIAL FORCES QUESTIONNAIRE (PT 4474)

The Special Forces Questionnaire consists of ten open-end questions designed to determine the man's attitudes, perceptions, and knowledge regarding Special Forces. The instrument is solely a research device constructed specifically for the present project. The purpose is to provide research psychologists with a more complete picture of Special Forces trainees and to suggest items for a revision of the Special Forces Attitude ~~Battery~~. Total administration time is about 30 minutes.

*Inventory*

Examples of items:

1. What do you think is the purpose or mission of Special Forces?
2. In what ways do you think the Special Forces man is different from other combat personnel?

## SPECIAL FORCES PERSONAL DESCRIPTION LIST-II (PT 4478) Instructions, Form A (PT 4480); Instructions, Form B (PT 4481)

The instrument contains 50 words and phrases appropriate for describing persons. In Form A, the examinee describes himself by sorting the items into a five-category quasi-normal distribution. Form B uses the same items and distribution, but this time the examinee is instructed to use them to describe the "good and effective" Special Forces man. The Personal Description List, then, is similar to the conventional adjective checklist, but with the important difference that the forced distribution provides some control over social desirability response set. Self-description lists of the same general type have been shown to be valid predictors of performance in other military studies (Woodworth and Mackinnon, 1958).

Form B was included primarily on theoretical grounds. Regardless of the man's self-perception, he may have a more or less correct perception of the effectual Special Forces man. Insofar as he happens to recognize what characteristics contribute to effective performance, he is in a better position to adapt to the requirements of the situation. Also, he may be less likely to experience disappointment with what he finds. Thus, there may be an optimal perception of the Special Forces man.

Form A and Form B, in addition to being considered as separate instruments, may be considered together as a single instrument. Regardless of whether there is optimal perception of the Special Forces man or a set of optimal traits that the man may perceive himself as having, the relationship between self perception and perception of the effective Special Forces man may itself constitute a valid predictor of performance. In other words, degree of congruency between Form A and Form B descriptions may be an

indication of the extent to which the man sees himself as fitting in or belonging to the reference group. Thus, indirectly, the relationship may reflect motivation for Special Forces.

The Personal Description List was first developed in connection with a Special Forces officer study. Descriptions of effective officers elicited by open-end questions were content analyzed. Several categories of description emerged, and items were selected to represent the categories. An examination of existing self-description instruments provided additional items; still other items were introduced to round out the set. The preliminary version of the instrument was administered to an officer sample, and the psychometric properties of the items were examined. As a result of the internal analysis, some shortening and refinement occurred. Total administration time for the two forms together is about ~~20~~ <sup>30</sup> minutes.

Sample items:

1. Aggressive
2. Inventive
3. Considerate
4. Wide in interest

#### PERSONAL HISTORY QUESTIONNAIRE IV (PT 4482)

There are 70 background items, each permitting from two to five alternative responses. The items sample such areas of behavior as educational history, home life, recreational habits, work experience, and military history. Certain of the items are presumed to measure specific characteristics which may be related to Special Forces performance. Some items bear upon the individual's inclination to assume responsibility, his interest in outdoor activities, and his risk-taking tendencies. Other items sample a wide range of behavioral categories identified through an examination of similar instruments used both within and outside the Army (Glennon, Albright, and Owens, updated). Finally, some items were included to round out the background picture.

Sample items:

1. How many years of military service do you have?
  - A) 1 to 3
  - B) 4 to 7
  - C) 8 to 12
  - D) 13 to 16
  - E) over 16

2. Do you keep an itemized expense budget?  
A) Yes  
B) No

SPECIAL FORCES SURVEY OF SOCIAL ATTITUDES II (PT 4476)

The Special Forces Survey of Social Attitudes provides a list of 15 attitudinal statements taken from, or suggested by, research on the authoritarian personality (Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950). The instrument is essentially a modified F scale. Items are endorsed on a six-point scale ranging from "I agree very much" to "I disagree very much". The instrument indirectly measures intolerance for minority groups or for the customs and beliefs of people who are culturally different from the examinee. Since the Special Forces man is called upon to function in a foreign social environment, his social attitudes are likely to bear upon his effectiveness. About 15 minutes is required for administration.

Sample items:

1. People seem to fall into two classes: the weak and the strong.
2. An insult to your honor should not be forgotten.

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