MEMORANDUM FOR: The Director of Central Intelligence
FROM: William E. Nelson
Deputy Director for Operations
SUBJECT: MILITARY THOUGHT (USSR): The Psychological Screening of Specialists

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article, in supplementing a previous article dealing with the training required under the current universal military service law, focuses on the need for adequate psychological screening of prospective military specialists such as pilots, radar operators and missilemen. The author briefly examines the research involved in arriving at a psychological description of a particular specialty based on a correlation of the skills required and the appropriate arrangement of psychological traits which best promote the acquisition of these skills. This article appeared in Issue No. 3 (88) for 1969.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned

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William E. Nelson
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The following report is a translation from Russian of an article which appeared in Issue No. 3 (88) for 1969 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General-Lieutenant of Tank Troops I. Petrov. This article, in supplementing a previous article dealing with the training required under the current universal military service law, focuses on the need for adequate psychological screening, in addition to an assessment of the physical capabilities, of prospective military specialists such as pilots, radar operators and missilemen. The author briefly examines the research involved in arriving at a psychological description of a particular specialty based on a correlation of motor, sensory and mental skills required and the appropriate arrangement of psychological traits which best promote the acquisition of these skills.

End of Summary
The Psychological Screening of Specialists

by

General-Leytenant of Tank Troops I. Petrov

The article "The Universal Military Service Law and the Manning of the Armed Forces" by General-Leytenant A. Rudakov, published in the Collection of Articles of the Journal "Military Thought", No. 1 (83) for 1968, raises a question of national importance. It discusses the training of young persons for military service and the further improvement of the fighting efficiency of cadres and of all army and navy personnel. The correct accomplishment of these tasks constitutes an important factor in ensuring a high level of combat readiness and combat effectiveness in the Armed Forces. In support of the author's belief that an exchange of opinions on the questions raised is useful, let us focus on one of them: the problem of the psychological screening of specialists.

Comrade Rudakov observes that only men with special command and engineer training are able to control subunits that have complex equipment. This is absolutely correct. At the same time, we would like to add that it is also necessary to give both officers and the persons they command appropriate psychological training.

It is generally known that psychological traits are not developed in an instant. They evolve and develop, in essence, during all stages of a person's life and activities under the formative influence of many factors -- economic, political, social, ideological, etc. A youth who has been drafted into the army already possesses definite traits, among them psychological traits. When determining the place of a young man in the overall military structure it is highly necessary that these psychological traits be weighed just as carefully as others. The workers of the military commissariats, commanders, and political workers of the military units are required to actively participate in psychological screening.

Military schools play a large role in developing the psychological traits of servicemen. But are the scientifically based criteria of psychological screening always used when admitting cadets? As is shown in practice, not always. Meanwhile, an extended study of the graduates of the schools and an analysis of the training of cadets and of the subsequent service of graduates enable us to conclude that principally those youths who were prepared for the choice of the officer profession not only by their general education, but psychologically as well, successfully master
the full program and become full-fledged commanders. Unfortunately, many young men entering a school have an extremely superficial understanding of their chosen profession and of the nature of the demands that are now made of a career officer.* The following data corroborate this:

<table>
<thead>
<tr>
<th>Indications</th>
<th>Number of graduating students (as a percent of those questioned)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of present-day professional military activity:</td>
<td>year of 1964</td>
</tr>
<tr>
<td>a) more or less complete</td>
<td>9.0</td>
</tr>
<tr>
<td>b) far from complete, fragmentary, in many respects vague, lacking sufficient awareness of the specific nature of the officer profession, its difficulties and demands</td>
<td>91.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
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It is precisely insufficient moral and psychological readiness to master a complex military profession, which entails overcoming many obstacles, that as a rule gives rise to a negative attitude toward this profession quite soon after entry into a higher military educational institution. Because youths who wish to become officers lack the deep, inner motivation to dedicate themselves to their chosen work and inadequately comprehend the consequences of the step they are taking, some cadets become desirous of leaving the military school. A careful analysis of such occurrences (although they are not frequent) shows that they complicate and considerably impede the development of young command personnel. Therefore, the psychological preparation of youths for professional military activity constitutes one of the most important prerequisites to the reliable replenishment of the officer corps under present-day conditions.

The article of General-Leytenant Rudakov brings to our attention the manning of those troops in which service "entails increased emotional, physical, and psychological burdens". It is pointed out that the desire to serve with such troops in peacetime must be considered a manifestation of great patriotism. The author recommends that these factors be taken into consideration in manning.

The accuracy of this observation certainly is beyond doubt. However, data from military psychology indicate that motivation, even when very strong, is far from enough to ensure success in mastering any given profession. A person who has expressed a desire to serve in a selected branch of the Armed Forces or branch arm must possess the necessary capabilities and specific psychological characteristics. This requirement becomes especially urgent when service involves critical situations, where psychological pressure is increased, and a person making a decision may, out of inadequate psychological endurance, endanger his own personal safety and materiel of considerable value.

One must also not fail to consider this factor, which directly affects the combat readiness and combat effectiveness of a unit or a subunit. A soldier deals with enormous forces of energy and speeds. This is true not only of missiles, but also of conventional types of weapons, and calls for fast reactions. For example, a one-eighth-second delay in the reaction of a pilot can cause an aircraft to deviate from its course by 500 meters; if a radar operator sends out data on the target after three or four fixes (instead of one or two), the target will already be outside the zone in which it can be destroyed.
Many examples demonstrate that not only subjective desire but also the objective capabilities of a person are important. Let us take the work of an antitank guided missile operator. Although operator-commanders of combat vehicles undergo the same theoretical and practical training in the training subunits, they are not all equally equipped to carry out their duties. Thus, in the interesting article by Lieutenant Colonel A. Mittelman* it was established that 35 percent of the operator-commanders who arrived in a unit, all of whom were motivated, were not able to cope with their duties.

An operator usually carries out his combat task within 22 to 25 seconds. The time limit, the complex, fluid, and dangerous nature of the situation, and the great responsibility creates an overload of a nervous-emotional nature in him. There are often cases of operators who, after doing well in a training session, display confusion and an inability to act in a so-called stress situation during a field firing. This is because they are handicapped by emotional instability, delayed reactions, etc.

Comrade Mittelman correctly observes that in a number of antitank guided missile training subunits the necessary effort to detect these traits in trainees is not made.

And this situation does not exist in these subunits alone. When I participated in the psychological screening of applicants for a flight school, I was a witness to psychological traumas, the ruin of the noblest of plans. It was sometimes necessary to screen out persons who had firmly resolved to become military pilots, but who did not possess the required psychological traits. For example, applicant S. was eager to come to the school, did excellently on his tests, and successfully passed the medical board tests. Nevertheless, he was weak in some psychological traits that are highly essential to a pilot. The psychological board wrote in its description of S.: "Inadequate grounds for recommendation." However the credentials board, taking into consideration the excellent evaluations and the assertions of the applicant that he would be able to master the flying profession, disregarded the findings of the psychologists. Within a year cadet S. was dismissed for lack of flying proficiency, even though he had good work habits and sound theoretical knowledge. Several other comrades found themselves in a similar position. Prior to the introduction of psychological screening, they constituted up to 15 percent of those in aviation.

If in the future we take only the motivation of the applicant into consideration, ignoring his capabilities and psychological characteristics, we will inflict psychological trauma upon many young patriots and we will not ensure that our units and schools are filled with high-caliber personnel.

Present-day military equipment makes much greater psychological demands of a person, and substantially increases the burden on the intellect, the emotions, and the will.

It is perfectly clear that unless soldiers have acquired great moral-political and psychological endurance and possess emotional stability and a strong will, we cannot count on success in a modern battle. The level we have achieved in the means and methods of conducting combat actions enhances the importance of the screening and distribution of servicemen among the branches and branch arms, and forces us to take into consideration the tasks of each formation, large unit, unit, and ship, and to recognize the impact of the so-called "psychological factor".

Thus, the correct accomplishment of combat training tasks to a considerable degree depends on the assessment of the psychological traits of the men, which makes it possible to train specialists within a shorter period of time, to reduce material expenditures, and to decrease the number of accidents and disasters.

Therefore, in order to master a military specialty and the ability to function successfully in battle, a person must possess not only good health, but also the necessary psychological traits.

In view of this, we believe it advisable to supplement combat training programs, which, as we know, set forth only general, undifferentiated requirements as to the personal traits of specialists, with appropriate provisions.

In this connection, we point out that professional screening cannot be limited to just medical indices. Now it no longer suffices for us to be guided by the merest anthropometric* and chronometric information, just as we must not rely only on the purely empirical "adjustment" of existing arrangements and systems to the capabilities of the specialist. The determination as to the suitability of a person for any given specialty must be based not only on biological (state of health, muscular strength, height, weight), social, and moral-political indices, but also on

*Anthropometry - one of the research methods used in anthropology, consisting of the various measurements of the human body.
psychological personality characteristics, an inadequate knowledge of which impedes the training of a specialist. It was persons who turned out to be unsuited to a given type of activity who caused the turnover in personnel and lowered the combat readiness of units, ships, and subunits. Ignorance of the scientific bases for Manning has led and is leading to the inefficient expenditure of forces, materiel and time on training.

At the present time this problem is beginning to receive more attention. Scientific publications and research papers have appeared, and work is in progress to develop screening methods. Commanders, political workers, psychologists, engineers, and physicians are participating in this work. Research findings have made it possible to identify several of the features of the interaction of the specialist with equipment and armament, and to improve screening conditions and training and work processes. The use of special screening in aviation made it possible to reduce failures for lack of flying proficiency from 15 to 4.5 percent.

Errors in research should also be noted. The psychological structure of the work of military specialists is not always studied, and when it is studied, it is done without the supervision of psychologists and, consequently, superficially. The departure from the specific, practical point of view impedes the development of scientifically based psychograms and psychological screening methods. Not the least is the magnifying of the inborn biological factor: in research this inevitably leads, in essence, to a disregard for the social aspect of the work of a soldier and to the underrating of psychology as a science. In addition, at times research is primarily limited to the examination of the work of the operator.

Of course, the operator constitutes a specific factor in the "man-machine" equation that does not resemble any of the others. In connection with this, a question arises as to the study of the intellectual and emotional-volitional aspects of the operator. Unfortunately, however, in the majority of works whenever the psychological traits required of a soldier by a specialty are discussed, invariably specified in the majority of cases are: good concentration powers of observation, quickness of orientation, quick-wittedness, and strength of will, i.e. the best psychological traits for a person in general, regardless of the nature of his basic activities. To enumerate these traits is not to solve the basic problem, which is to identify the particular trait that determines success in an undertaking, and which constitutes the task of research. Only if there is a comprehensive, scientific approach can we determine the reason why it becomes difficult or impossible to carry out a task. To find those
specific features of general traits that apply to a particular specialty is the duty and mission of the scientist and the researcher.

It is extremely desirable that commanders participate more actively in the study of the psychological structure of the work of the specialist. In this regard the initiative of Lieutenant Colonel A. Mittelman is outstanding.

While training antitank guided missile operators, he decided to investigate the difficulties he encountered and to turn to psychologists for help. All the professionally important personal traits of an operator were divided into two groups. Those that are developed or learned during a specific course of training were put in the first group, and personal traits which are more conservative and develop slowly were put in the second group. They succeeded in singling out distinctive psychological and personal traits in the work of an operator.

This approach to the problems of training and manning helped to improve combat training and to make the unit one of the highest ranking in the district.

Clearly, it hardly is worthwhile to attempt to make a specialist out of a draftee without taking his psychological characteristics into consideration. Therefore, the urgent task of a person doing research on psychological screening is to scientifically determine the arrangement of those psychological traits that best promote the training of specialists and that determine the success of their work.

It is advisable to examine the psychological characteristics of the activity of the specialists in relation to the totality of the reflection and control of the procedural and the personal (not to limit oneself to studying only reactions to irritants). The study of a military specialty is not limited to the analysis of unrelated traits. The analysis of professionally important traits is followed by their synthesis; all aspects and ramifications of phenomena should be scrutinized.

The integrated study of the personality in the work process is of particular importance when specific questions are raised as to the suitability of a soldier for a specialty and the development of his qualifications. The researcher must know the psychological conditions of work; for otherwise he will not be able to explain what caused a given condition in a person. Since the psychological traits displayed by a soldier depend on technical and organizational work conditions, any
psychological research of a type of work entails a reasonably complete and
detailed description of the conditions under which it was carried out.

On the basis of the information obtained, a psychological description
of the specialty (profession), its psychogram, is composed. The psychogram
of a military specialist includes only those essential psychological
processes and characteristics of a soldier that constitute a part of his
professiogram. In this case we can recommend the structure suggested by
Colonel V. N. Lunkov. Any given type of specialist work is characterized
by a definite correlation within it of different types of skills.
Conventionally they are divided into: motor skills -- used to quickly and
correctly carry out the actions and operations involved in the handling of
weapons and combat equipment; sensory skills, which provide unerring
orientation in the surrounding environment and assure the monitoring of
comes actions; and mental skills -- used to quickly and accurately analyze
information perceived and arrive at a decision.

It is essential to recognize that although each of the enumerated
skills exists in the work of any specialist, the ratio and combination of
them are not identical; they depend on the specific features of the actions
and functions of the soldier. This leaves an imprint both on the study of
the work of specialists and on the content and methods of screening and
training army and navy personnel.

In order to better ensure the manning of the armed forces when the Law
on Universal Military Service is applied, it is necessary to more
efficiently organize, with the help of military psychologists, the
scientific research and practical work involved in psychological screening
and to experimentally verify the importance of the traits and requirements
revealed. A prediction of the psychological features of an activity must
be complete, reliable, structured, and of use in determining what
difficulties and erroneous actions will most probably occur. The
arrangement of psychological traits for a given specialty will serve as a
basis for working out a set of procedures to be used in psychological
screening.

*V. N. Lunkov, The Improvement of the Forms and Methods of Training Soviet
Soldiers During the New Stage of Development of the Armed Forces, Published
It is advisable to begin the working out of any test with a thorough psychological analysis of that which is to be studied. Included in the test should be tasks the purpose of which is to identify the characteristics required in the specialist. Of course, in order to conduct such complex work one needs a profound knowledge of psychology, military matters, and combat training methods as well as a firm mastery of the mechanics of statistics. The final stage consists of implementing the sets of procedures for the psychological screening of specialists in the armed forces.

The value of the above method of studying the psychological activities of the specialist and of screening consists of its practical orientation. The introduction of psychological screening in the troops will create conditions more favorable to the training of military specialists. This type of screening, as has already been pointed out, will shorten the training period, reduce the expenditure of means, and decrease the number of psychologically caused mishaps, accidents, and disasters. Consideration of the psychological factor will promote the training of qualified, psychologically stable soldiers who are dedicated to our country.