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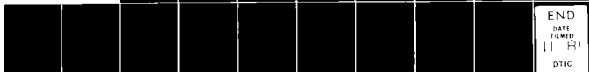
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STUDENT RESEARCH REPORT

DOSA AF'S PRE-INDUCTION MILITARY
TRAINING PROGRAM:
AN UPDATE ON PROBLEM AREAS
MAJ James H. Brusstar
1981

GARMISCH, GERMANY

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DCSAAF'S PRE-INDUCTION MILITARY TRAINING PROGRAM:
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(1976 - 1980)

Major James H. Brusstar
June 1981

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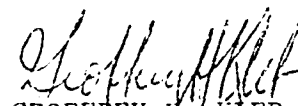
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F O R E W O R D

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GEOFFREY H. KLEB
LTC, MI
Commanding

SUMMARY

The author, using Soviet sources, examines the problems the Soviet government experienced in its pre-induction military training program during the period 1976 - 1980. He concludes that there were improvements during the five years, but that the Soviets still experienced major problems in the areas of instructor quality, resource allocation and organizational responsiveness.

INTRODUCTION

This paper discusses the problems that the Soviet government is experiencing with its pre-induction military training program.¹ Basically, this paper is an updated study of one completed in 1976 by Captain Joseph F. Clare Jr.² In his study (covering the period June 1974 - December 1975) Captain Clare concluded that the Soviet authorities had, themselves, analyzed their program of pre-induction military training and designated five major problem areas that needed increased emphasis during the tenth five year plan (1976 - 1980). The areas are: organization and supervision; the quality of military instruction; the program's content; physical fitness training; and, deficiencies in the material-technical base, (material'no-tekhnicheskaya baza).

Pre-induction training is required by the 1967 Law on Universal Military Service for all persons between the ages of sixteen and eighteen. The law assigns to the Ministry of Defense responsibility for the pre-induction military training program; but it is a Communist Party organization that actually conducts the program at the national (all-union) level. The organization is called the Voluntary Society for Cooperation with the Army, Air Force and Navy - DOSAAF.³ Within the military districts it is the local military commissariats that are responsible for the implementation of the pre-induction training program.

Although pre-induction military training is just one program conducted by DOSAAF, it includes elements of the other DOSAAF training programs

(military-patriotic training, training of technical specialties, physical fitness training, and civil defense training), and participation in these other programs often substitutes for portions of the pre-induction program. Thus, the DOSAAF programs are interrelated and all program efforts serve to better prepare the future soldier.

Before addressing the problem areas it is worth noting the size of DOSAAF and its growth in the last five years. In late 1975 DOSAAF reported a membership of 71 million and 316,000 primary/local organizations (pervichnye organizatsii).⁴ As of January 1, 1977 DOSAAF claimed 80 million members and 330,000 primary organizations.⁵ A year later (January 1, 1978) the society claimed a membership of 85 million but still 330,000 primary organizations.⁶ By March 1979 DOSAAF's membership was 90 million located in 336,000 primary organizations.⁷ In November 1980 the society officially claimed 94 million members (over 71% of the working and studying youths of the country).⁸ No new figure for the primary organizations has been located for 1980. So, in five years, membership has increased by 13 million (32%) and the number of primary organizations has increased by at least 20,000 (6%).

ORGANIZATION AND SUPERVISION

Governmental responsibility for the pre-induction military training program flows downward in a vertical chain that goes from the Ministry of Defense (Directorate for Premilitary Training) to the military district commander and to the local district commissariats. The organizations of this vertical chain have responsibility for planning the programs in their districts, training the cadres, and organizing the local training groups.

Parallel to the governmental chain of responsibility is the Communist Party chain of responsibility which starts at the Central Committee of DOSAAF at the national level and goes down to committees at republic, district and region levels. It is DOSAAF's responsibility to conduct the actual training at the primary organization level.

Although it is not stated, there is a third vertical chain of responsibility that is essential to the pre-induction military training program. That is the chain that goes downward through industrial and educational channels, because the local industrial enterprises and schools are charged with the responsibility to build local training facilities (offices, classrooms, rifle ranges, etc.). These institutions work under the control of their superiors.

The supervision problem that these three vertical chains cause is obvious. Captain Clare points out that by the mid-1970s some aspects of this organizational problem were being corrected by having DOSAAF itself finance and supervise the construction of some training facilities.⁹

This partial solution was used throughout the tenth five year plan and

plans for DOSAAF controlled construction of facilities have already been prepared for the period up to 1985.¹⁰ But such a solution is only partial. The fact is that no one chain has, as of yet, enough legal authority to ensure that all aspects of the pre-induction training program run smoothly. This fact becomes obvious when one reads the DOSAAF publications Sovetskii Patriot and Voyennyye Znaniya. Articles are constantly published urging local DOSAAF committees and military instructors (voyenruks) to get local factory managers and school leaders to construct and supply needed facilities.¹¹

Even if the basic organization problems of DOSAAF have not changed, the supervision problem seems to have improved somewhat. Whereas Captain Clare mentioned the frequent appearance of articles urging military commissariats to more actively supervise the primary organizations under their control, those articles today appear infrequently and are generally written by lower level personnel or special correspondents. The last article this writer found that was written by a high level supervisor and directed at DOSAAF committee directors appeared in September 1976. In that article Lieutenant General A. Pokal'chuk, Chairman of the Ukrainian DOSAAF Central Committee, told DOSAAF committee directors that they kept too much work to themselves and that they must dole out the actual work and spend more time supervising subordinates.¹²

The problem of supervision has also been alleviated by the assignment of better qualified personnel to the DOSAAF committees. For example, it was reported that in the Far East ASSR between the years 1974 and 1978 the number of supervisory personnel with higher education rose from zero per cent to forty per cent.¹³ It is also interesting to note that there has been a trend towards younger committee members. In 1978 it was reported

that the number of committee members under thirty years of age had risen to twenty per cent of the membership at region level.¹⁴

THE QUALITY OF MILITARY INSTRUCTION

While there has been a decrease in the attention paid to the directors of DOSAAF committees there has been a corresponding increase of attention given to the role of the military instructor (voyenruk). In 1976 Captain Clare concluded that "the question of instructor qualification...is perhaps the most serious current problem of the entire pre-induction training program."¹⁵ The Soviet authorities apparently agreed. During the last five years there has been an enormous effort to upgrade the quality of the voyenruk. Voyennyve Znaniya continuously publishes articles to help the military instructor. Every issue carries articles about equipment on which instruction should be given. The back cover of the magazine normally carries a color drawing showing the outside and inside features of a common item of military equipment. These back covers appear to be designed as training aids. Many articles address the planning process necessary for presenting a period of instruction. The voyenruk is shown how to set up the individual stations of a chemical/radiological training course¹⁶; how to set up a field for competition in military related sporting events¹⁷; how to plan for a five day field exercise (make sure the assistant instructors see the training area before the exercise begins!)¹⁸; how to set up a class for instruction on the use of chemical protective clothing¹⁹; and every other type of instruction imaginable.

Not all the attention given to the voyenruk is designed to provide assistance in classroom instruction. Many articles are written evaluating

the performance of the military instructors - as a group or individually. These articles appear to have two audiences in mind: the vovennuk himself and his supervisor.

In a major article written in September 1977 the Chief of the Department of Pre-induction Military Training, of the Ministry of Education, A. Averin, emphasized that the military instructor was the key to the pre-induction program and called on local DOSAAF directors to improve the quality of these instructors.²⁰ Averin urged that instructor methodology classes be set up to train the military instructor. The same thought was echoed in 1978 by V. Sysev, a department staff member (instruktor) under the Central Committee of the Communist Party, who wrote that military instructors needed to have a higher professional preparedness (vysokaya professional'naya podgotovlennost') before being sent into the classroom.²¹ Voennoye Znanie for the years 1979 and 1980 are filled with articles addressing the need to train the vovennuk. In June 1980 Averin again addressed the problem concerning the qualification of the military instructor and once more called on the republic, district and local DOSAAF committees to conduct courses on theories and methods of instructing.²²

It would seem that during the last five years the problem of raising the standards of instruction has been complicated by the rapid increase in DOSAAF membership and the number of primary organizations. And an increase in membership (even if not all are students) is certainly large, even by Russian standards. Furthermore, an increase in 20,000 primary organizations must have significantly downgraded the supervisory ability of DOSAAF committees, even if the committees themselves were enlarged.

In the long run, however, the question of having quality instruction may rest more with the individual instructor himself than with the efforts of the DOSAAF committees. And in this respect it is worth noting that just three years ago Averin reported that 75% of the military instructors had been in World War II.²³ The problem of poor quality instruction may end up being solved, not through the present endeavors to train old instructors, but through a natural process of attrition.

PROGRAM CONTENT

The content of the pre-induction military training program was established by the 1967 Law on Universal Military Service. The program consists of 140 hours of instruction on military organization and regulations, small arms use, civil defense techniques and field survival. Although the program content as prescribed by law has not changed over the years, there has been, as indicated by Captain Clare, a continuous effort to change the contents of the courses actually presented to pre-inductees. In short, the military instructors have not been complying with the 1967 Law.

Part of the problem concerning course content has not been the fault of the program. The failure to conduct rifle firings and civil defense training, as well as the many sports programs is often a result of a lack of facilities. But that does not leave the military instructor free of responsibility for shortcomings in instruction. In his August 1989 article in Training, Averin pointed out that many preinductees were only instructing 20-35 minutes on subjects that were required to have an hour spent on them.²⁴

The need to improve upon the actual contents of a given course will undoubtedly continue to exist. In fact, the need to increase classes that

stress patriotism and civil defense expertise, as well as the time spent participating in military related sports programs has been mentioned at length in both the 1979 and 1980 annual reports of the Chairman of the DOSAAF Central Committee, Marshal A. I. Pokryshkin.²⁵

Additionally, it is interesting to note that the expressed concerns about the urgent need to improve course content seem to be at odds with the published results of the pre-induction training program. For example, it was reported in 1976 that 94% of the inductees into the Armed Services had completed the DOSAAF training course with the top grades of otlichno or khorosho.²⁶ The 1980 figure remains high with 95% of the inductees getting the top two grades.²⁷ Captain Clare reconciled this conflict by stating grades given by military instructors were probably inflated. This writer has found no reason to argue with this conclusion.

PHYSICAL FITNESS TRAINING

The physical fitness program conducted by DOSAAF is not part of the pre-induction program.²⁸ But because DOSAAF is charged with the responsibility to insure that all inductees are physically fit, the physical fitness program is often viewed as part of pre-induction training in a general sense.

The emphasis on sports training is continuous and intense. Almost every issue of Voennoye Znaniya has an article on the sports program. In his annual reports to the Central Committee for the years 1979 and 1980 Marshal Pokryshkin strongly stressed the need to push sports programs (for non-inductees as well as inductees). In fact, in his 1980 report Marshal Pokryshkin stated it was necessary to organize two training shifts in areas such as cities where there are many people seeking to participate.

The reported results of this emphasis on sports are impressive. In 1974 17 million people participated in military related sports programs.²⁹ In 1975 participation increased to 20 million.³⁰ By the end of 1977 the number had increased to 25 million.³¹ And by the end of 1979 there were 50 million reported participants.³² The figure of 50 million was also used by Marshal Pokryshkin in his November 1980 report to the DOSAAF Central Committee.³³ Additionally, it was reported that in 1979 and 1980 over 11 million sports participants passed the established physical fitness norms and received the "Ready for Labor and Defense" (GTO) award.³⁴

If one considers the published figures to be accurate, then the only problem that the Soviets are likely to be struggling with in their sports program is their inability to build and equip facilities fast enough to handle all the new participants.

THE MATERIAL TECHNICAL BASE

The progress in building and equipping the necessary material-technical base for the DOSAAF pre-induction training program appears to be as unimpressive as the sports program is impressive. In his September 1977 article in Voyennyye Znaniya³⁵ Averin pointed out the major deficiencies that existed in training facilities and equipment. Many districts were missing equipment for chemical and radiological training, rifle ranges, weapons storage rooms and even weapons themselves. Three years later in August 1980 Averin reported that the same general problems existed in the material-technical base, but this time he pinpointed the geographical areas with the most severe construction problems. The areas were: Azerbaidzhan, Tadzhikistan, Kirgizia, Armenia and several districts of the RSFSR.³⁶

The material-technical base problem has also been commented on by Marshal Pokryshkin. In his 1979 report he stated that many villages lack the material-technical base needed to conduct any pre-induction training whatsoever.³⁷ And in his 1980 report he stated that only 37 buildings for DOSAAF training had been built during the period 1976-1980.³⁸

As indicated above, a good part of the problem is that Marshal Pokryshkin and others point out the need for greater development of the material-technical base but the solution is left to others at lower levels. It is up to the local DOSAAF committee member to get factories and schools to volunteer their services. If they do not cooperate then all the committee can do is request the next higher DOSAAF committee take up the problem at their level. Except on a limited scale the DOSAAF organization on the national level has not become involved in the actual development of the needed material-technical base.

CONCLUSION

In reviewing the DOSAAF pre-induction military training program during the last five years one must conclude that physical fitness training should no longer be considered as a problem area. The number of participants in the various military related sports programs has increased dramatically, and the reported results of the program (even allowing for some exaggeration) are impressive. The problems which still exist in the sports programs can be more accurately classified as problems in the material-technical base.

Similarly, one has to question whether or not "program content" should have been originally listed in 1976 as a separate problem area. The problems concerning program content seem to be now, and probably always have

been, simply an indicator of problems existing in the material-technical base and in instructor quality.

The remaining three problem areas can be placed into two categories: functional and systemic. In the functional category is the problem of instruction quality. This problem can probably be overcome in the future - but as of this report the problem still exists. DOSAAF, through its publications, is trying to improve the knowledge of its voyenruks but the main problem in DOSAAF instruction is the voyenruk himself. DOSAAF may improve the military instructor's knowledge (primarily through articles in Voennoye Znaniya) but improving the method of instruction is going to be more difficult. Basically the problem is one of "teaching old dogs new tricks." The solution may end up being the acquisition of "newer dogs".

The problems in the material-technical base and organization are systemic and are closely related. Furthermore, as a systemic problem they affect the other areas already commented upon. The problem of constructing needed facilities and equipping them is that the person claiming priority is not the person controlling the resources. And this brings us to the problem of organization. As mentioned above, no one in the three vertical chains of responsibility has the legal authority to control all aspects of the pre-induction training program. As long as production priorities are established by the hierarchy in the industrial ministries local DOSAAF committees will have to "beg and steal" needed resources.

In short, there were undoubtedly improvements in the pre-induction military training program during the period 1976-1980, but the program continued to experience major problems in the areas of instructor

instructor qualifications, organization and the ability to secure the
necessary material-technical base.

FOOTNOTES

¹A literal translation would be "introductory military preparation" (nachal'naya voyennaya podgotovka).

²Captain Joseph F. Clare Jr., DOSAAF and Pre-induction Training: Trends and Problems, Thesis, (Garmisch: USARI, 1976).

³The Russian title is Dobrovol'noye Obshchestvo Sodeystviya Armii, Aviatsii i Flota. Information on the history and organization of DOSAAF can be found in a wide variety of publications. E.g. The Defense Intelligence Agency Handbook on the Soviet Armed Forces, February 1978 and Harriet East Scott and William F. Scott, The Armed Forces of the USSR, (Boulder, Colorado: Westview Press, 1979). Russian sources include the Bol'shaya Sovetskaya Entsiklopediya, (Moscow: Soviet Encyclopedia Publishing House) and Soviet Military Encyclopedia, (Moscow: Military Publishers).

⁴"Kommunizma Pobednyi Shag" (A Victorious Step of Communism) Sovetskii Patriot, November 5, 1975, p. 1 quoted in Clare, Trends and Problems, p. 2.

⁵"1977 Yezhegodnik" (1977 Yearbook) of the Bol'shaya Sovetskaya Entsiklopediya, p. 28.

⁶"1978 Yezhegodnik", p. 22.

⁷"Doklad Predsedatelya" (Report of the Chairman), Sovetskii Patriot, May 31, 1979, p. 1.

⁸"Doklad Predsedatelya" (Report of the Chairman), Sovetskii Patriot, November 23, 1980, p. 1.

⁹Clare, Trends and Problems, p. 19.

¹⁰"Informatsionnyy Doklad Zamestitelya Predsedatelya" (Information Report of the Assistant to the Chairman), Sovetskii Patriot, November 23, 1980, p. 3.

¹¹In one article names were listed of individuals who had talked local factories into building needed facilities. See "Entuziasty" (Enthusiasm) Voyennyye Znaniya, December 1979, p. 20.

¹²"Za Effektivnost' Raboty Pervichnykh..." (For Effectiveness of the Work of the Primary...) Voyennyye Znaniya, September 1976, pp. 14-15.

¹³"Zabotlivo Rastit' Kadry" (To Train Cadre Thoughtfully), Voyennyye Znaniya, September 1978, pp. 10-11.

- ¹⁴ Ibid.
- ¹⁵ Clare, Trends and Problems, p. 7.
- ¹⁶ Voennoye Znaniya, April 1979, pp. 16-17.
- ¹⁷ Voennoye Znaniya, August 1979, pp. 16-17.
- ¹⁸ Voennoye Znaniya, September 1979, pp. 38-39.
- ¹⁹ Voennoye Znaniya, November 1979, p. 29.
- ²⁰ "Vazhnaya Zadacha Shkoly" (The Important Mission of the School), Voennoye Znaniya, September 1977, pp. 29-30.
- ²¹ "Zaborlivo Rastit' Kadry", pp. 10-11.
- ²² "Vazhneyshaya Zadacha Pedagogov" (The Most Important Task of the Teacher), Voennoye Znaniya, August 1980, pp. 26-27.
- ²³ "Vazhnaya Zadacha Shkoly", pp. 29-30.
- ²⁴ "Vazhneyshaya Zadacha Pedagogov", pp. 26-27.
- ²⁵ "Doklad Predsedatelya", May 31, 1979 and November 23, 1980.
- ²⁶ "1977 Yazhegodnik", p. 28.
- ²⁷ "Doklad Predsedatelya", November 23, 1980.
- ²⁸ Captain Clare failed to clearly distinguish between the two programs although he probably was aware they were separate.
- ²⁹ D. N. Kuznetsov, "DOSAAF SSSR - Shkola Patriotov" (DOSAAF USSR - School of Patriots), (Moscow: DOSAAF, 1975), pp. 21-22. Reported in Clare, Trends and Problems, p. 16.
- ³⁰ Major General V. Mosyaykin, "Boevaya Programma Deystviy" (Military Program of Action), Voennoye Znaniya, June 1976, p. 2-3.
- ³¹ "1978 Yazhegodnik", p. 22.
- ³² A. Mamaev, "Vstrechaya Leninskiy Yubiley" (The Meeting of the Lenin Jubilee), Voennoye Znaniya, January 1980, p. 3.
- ³³ "Doklad Predsedatelya", November 23, 1980, p. 3.
- ³⁴ For the 1979 figure see "Vstrechaya Leninskiy Yubiley", p. 3. For the 1980 figure see "Doklad Predsedatelya", November 23, 1980, p. 2.
- ³⁵ "Vazhnaya Zadacha Shkoly", pp. 29-30.
- ³⁶ "Vazhneyshaya Zadacha Pedagogov", pp. 26-27.

³⁷"Doklad Predsedatelya", May 31, 1979, p. 1.

³⁸"Doklad Predsedatelya", November 23, 1980, p. 1.

BIBLIOGRAPHY

Books and Pamphlets:

In the following books and pamphlets one can find general information on the history and organization of DOSAAF and its programs:

1. Clare, Joseph F. Jr. DOSAAF and Pre-induction Training: Trends and Problems. Thesis. Garmisch: USARI, 1976.
2. Defense Intelligence Agency. Handbook on the Soviet Armed Forces. Washington: U.S. Government Printing Office, 1978.
3. "DOSAAF" Yezhegodnik, Bol'shaya Sovetskaya Entsiklopediya. Moscow: Soviet Encyclopedia Publishing House. (The membership figures used in each yearbook are one year behind.
4. Kuznetsov, N.N. DOSAAF SSSR - Shkola Patriotov (DOSAAF USSR - School of Patriots). Moscow: DOSAAF, 1975.
5. Nikitin, B.V. Krasnoznamennoe Oboronnnoe (The Red Banner Defense). Moscow: DOSAAF, 1971.
6. Soviet Military Encyclopedia. Moscow: Ministry of Defense Publishers.
7. Uchebnoe Posobie Po Nachal'noi Voennoi Podgotovke. (Educational Handbook on Introductory Military Training). Moscow: DOSAAF, 1971.

Magazines and Newspapers:

1. Krasnaya Zvezda. (Moscow) January 1976 - January 1981.
2. Sovetskii Patriot (Moscow) January 1976 - January 1981. Most articles are sent in from the various military districts. The report of the Chairman of the DOSAAF Central Committee is reported on at length immediately after each DOSAAF Congress.
3. Voennoye Znanie (Moscow) January 1976 - December 1980. This is the best source for current information on DOSAAF training - especially the August and September issues (#8 & 9) which every year contain major articles on problem areas in DOSAAF programs.

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