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The Soviet Military Education  
System for Commissioning and Training Officers

Christina F. Shelton

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Paper Prepared for the Conference on "Military-Political Affairs in the 1980s"  
Sponsored by The Assistant Chief of Staff/Intelligence, USAF

International Conference Center  
Reston, Virginia

September 25-27, 1980

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## FOREWORD

The basic research for this report was conducted for Director of Net Assessments, Office of the Secretary of Defense (OSD/NA) and the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics (MRA&L) under the terms of contracts ~~DNA001-76-C-0075~~ and DNA001-77-C-0168 between the Defense Nuclear Agency and General Electric-TEMPO - Center for Advanced Studies.

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## Introduction

Despite the rhetoric in the West concerning the validity of 'detente' and arguments over Moscow's motivations and perceptions, Soviet behavior increasingly reaffirms the view of a highly aggressive, militarized state.<sup>1</sup> Moscow is apparently attempting to actively affect the correlation of forces, rather than (or in addition to) simply responding to historical and social processes.

On the international level, the Soviet Union's perceived requirements have resulted in a military presence that has remained highly visible in East Europe for over thirty years. Moreover, Moscow has been attempting to extend its political/military influence -- albeit indirectly -- beyond its accepted established sphere of influence in East Europe into the Middle East, Latin America, Asia, and throughout the African continent.

In conjunction with this expansion, an intense degree of militarization exists at the domestic level. USSR military forces include approximately 4.8 million men in arms, with an annual conscription rate of two million men. Military reservists number in the millions. Soviet youth are required by law to take military training at the high school level for two years. There are various forms of voluntary organizations teaching paramilitary training from grade school through college. Soviet citizens are required to participate in civil defense training. Armed troops organized into military units with combat weapons are in place to both guard the borders and serve the internal requirements of a controlled society. Military personnel are scattered throughout civilian sectors such as government ministries supervising aviation, construction, and railroads. And finally, the USSR allocates a large share of its resources to military development.

Size has always been a significant factor in Russian military strategy, due to a history of many continental wars with neighboring states. Similarly, geographical factors are still a reality, given the USSR's extended borders with China and political/strategic borders in East Europe. In this context, the military has always served such foreign policy requirements as maintenance of traditional spheres of influence. Today, however, the size of the military apparatus is not only a function of policy objectives but appears to have become also an active determinant of Soviet goals.

An obvious corollary to this intense degree of militarization is an extensive military educational system for commissioning and training career officers. A large officer corps is central to the Soviet cadre force concept for rapid mobilization (i.e. an army whose reduced strength units can be fleshed out by millions of reserves). The enormity of the military educational system may also be partially understood from the concept of the role of the officer, expressed by the late Minister of Defense, A. A. Grechko: "...officers have been, are, and always will be the core and backbone of our Army and Navy.... "In a more general sense, Soviet literature, although acknowledging the importance of weapons, asserts that the decisive factor in winning a war is 'man.'

<sup>1</sup> Notably, former Secretary of State Kissinger recently has argued that his sponsorship of the doctrine of detente has always been linked to Soviet behavior.

The significance of the officer corps as an essential element to the maintenance of military power is reflected in the extensive size of the student body, the faculty and the support elements, and in the number of schools (140) and academies (18) and their facilities. Estimates place the size of the officer corps at 720,000 to 960,000, with an annual commissioning of 50,000 cadets. The intensiveness of the system may be seen in the aggregate duration of training officers, the large number of officers of general rank, and the emphasis accorded to military-scientific research throughout the system -- especially at the military academy level.

Contrary to some thought, a strong, well established military system comprised of highly trained and educated officers does not represent a potential dichotomy between military and political elements within the Soviet Union. An important feature of the officer educational system is the inculcation of loyalty to the Party and the stress on ideological conviction and a communist world view, imparted through a large dose of Marxist-Leninist courses and party/political work and physically manifested in a political structure that permeates the military school system. Notably, 90% of the officer corps are either Party members or Komsomols. Moreover, at the top levels of authority, institutional lines tend to become blurred. Many high level commanders are members of the Central Committee. The Minister of Defense is a member of the Politburo and the head of the Politburo is a marshal of the Soviet Armed Forces. In short, cooption of military leaders into the high-level bodies of the Party lends itself to a commonality of views and a consensus on policy decisions.

#### Overview

The overwhelming majority of active duty career officers for the Soviet Armed Forces are commissioned and trained at military institutions of learning (VUZ)<sup>2</sup> which include 140<sup>3</sup> higher military schools, military institutes, military faculties at civilian educational institutions, military academies, and officer courses and classes.

The first step in what appears to be a continuous educational process interspersed by field assignments is, of course, the higher military school for commissioning officers. Prior to 1958, most of the military schools which commissioned officers offered a three year program of study. Since that time there has been a dramatic transformation and upgrading of the system in that all but a handful of the schools now offer a four or five year program and graduates are not only commissioned as lieutenants but also receive an all-union diploma -- an academic diploma equivalent to that awarded by universities and institutes.

2. VUZ - Voenno-uchebnyye zavedeniya

3. Reference to "140" schools indicates those which have been identified in Soviet open literature -- not the actual number, since there may be some which, to date, have not been identified.

The 140 higher military schools<sup>4</sup> train and educate future officers to fill command, political, and engineer positions in the various services. In general, these schools accept civilian youths from the ages of 17 to 21, extended duty servicemen to the age of 23, and warrant officers to the age of 25. Students from military preparatory schools are among the civilian youths competing for selection.<sup>5</sup> Entrance to the 140 schools is by competitive examination, which is both written and oral. There are separate admissions quotas for servicemen and civilian and usually two servicemen or four civilian youths compete for the respective vacancy.

In addition to the higher military schools, three military institutes with specialized profiles (i.e. engineering, linguist and legal, and musical) train officer candidates. Moreover, certain personnel are trained in military faculties established in civilian higher educational institutions (i.e. medical and financial).

The next formal step in the military educational system is the training of officers at one of the 17 service or branch academies. As a rule, military academies offer a three to five year program designed for officers who have completed higher military schools and several years of troop duty. Selection for the academies includes highly competitive examinations. In general, the maximum age limits for entrance are 28 at engineering academies and 32 to 36 at the other academies. Military academies are specialized and officers attend the academy which is associated with the force component of service branch in which they were commissioned.

Subsequent to military academy training, the force components (or services) provide special Higher Courses and Classes for field grade officers. Higher Academic Courses are also offered at the academies and military postgraduate programs are available.

The General Staff Academy, unlike the other 17 academies, has a two year program and represents the pinnacle of the formal school program. It is attended by selected officers, many of whom are generals, with graduation leading to the highest staff and command assignments.

4. "Military school" refers to a three-year school while "higher military school" denotes four and five year schools. Since all but a few of the 140 schools are now four and five year schools, the term "higher military school" is used in general throughout the report for convenience and with the understanding that the term does not apply to the few three year technical schools.

5. Suvorov schools and the Navy-oriented Nakimov School are military preparatory schools whose graduates apparently have a decided advantage for acceptance at VUZ and academies as well. A Soviet source reported that every third student at Frunze Academy had attended a military prep school. O. V. Zinchenko, We Are Suvorovites Voenizdat, Moscow, 1974, p. 5.

## I. Higher Military Schools for Commissioning Officers

### A. Background

The late Minister of Defense, Marshal A. A. Grechko, stated that "...a decisive role in the execution of missions facing the Armed Forces and in organizing and improving personnel training and indoctrination belongs to officers who have been, are, and always will be the core, the backbone of our Army and Navy..."<sup>6</sup>

The overall mission of the higher military schools is to produce this "core" of officers who are capable of waging war skillfully against a powerful, well-equipped enemy and to achieve the best results with the least number of losses. The CPSU requires the officer cadre of the Soviet Armed Forces to have the following attributes:<sup>7</sup>

- A communist conviction, and boundless dedication to the Party and the people;
- High discipline and performance;
- Initiative and self-sufficiency
- A will and organizational ability;
- Thorough professional training, to include both general and military-technical education; and
- The ability to educate and train subordinates.

These are the qualities that higher military schools seek to develop in the "kursant" or cadet and which the study programs are structured to develop. A conviction in communism obtained through the study of Marxist-Leninist philosophical theory is an absolute requirement since political reliability is a primary consideration throughout the Soviet officer corps. The future military leader also must have an in-depth understanding of tactics and the art of military operations, as well as the technical aspects of modern weapons systems.

While each school provides a balance of this ideological, military, and technical training, emphasis is placed on the particular profile of the school...command, engineering, political. The "commander" has direct overall responsibility for the unit or ship which he commands. This includes military

6. Red Star, November 27, 1969.

7. Marshal A. A. Grechko, Vooruzhennye Sily Sovetskogo Gosudarstva, (1975), p. 239-240.



and political training of his men, maintenance of discipline and morale, and responsibility for equipment and logistical supplies. Hence, command schools concentrate on the development of organizational ability and the art of managing people.<sup>8</sup> The primary task of the military engineer officer is to provide engineering support for combat operations, which includes the training of personnel to maintain equipment for combat readiness and to handle weapons systems. Political officers are tasked to develop loyalty to the CPSU and Soviet government among the troops.

A method of dividing the 140 higher military schools other than by their three fundamental specialities is by force component or branch of service, as follows:

●	Strategic Rocket Forces (SRF)		5
●	Ground Forces		36
	Combined Arms	(11)	
	Tank	(9)	
	Rocket Troops and Artillery	(10)	
	Air Defense Troops	(5)	
	Airborne	(1)	
●	National Air Defense (PVO)		15
●	Air Force		26
●	Navy		11
●	"Special Troops"		24
	Engineer	(3)	
	Chemical	(3)	
	Signal	(12)	
	Automotive	(4)	
	Railroad and VOSO	(1)	
	Military Topography	(1)	
●	Rear Services		5
●	Military Construction		8
●	Miscellaneous		2
●	KGB/MVD <sup>9</sup>		8

A complete listing of all schools is provided in the Appendix.

8. Modern military technology, which has caused the previously sharp line between command and technical personnel to become obscured, has resulted in the Soviets placing a conspicuous emphasis upon raising the engineering-technical training requirements for command personnel. In the past 24 months, five "command" schools have been converted to "engineering" schools.

9. Although the KGB/MVD troops are not under the direction of the MoD, they are, by law, part of the Soviet Armed Forces.

## B. Organization

Although an incomplete picture of the internal structure of a typical higher military school emerges from a study of Soviet open literature, there are enough references to departments, staff personnel, courses, and units to formulate a tentative concept of the general organizational pattern. This concept is presented in Figure 1, which indicates that a typical school consists of the following major elements:

- The Commandant and his deputies,
- An Organization Section
- A Political Section
- A Training and Scientific Research Section, and
- A Material/Technical Support Section

Each of the foregoing sections also has a number of subordinate elements. It would appear that the staff of the commandant would include a chief of staff, although this position was identified at only one school (i.e. at the Orenberg Higher Surface-to-Air Missile Command School). The chief of graduate programs is also considered to be one of the command element at the few schools which offer graduate studies. Finally, a KGB element is thought to be part of the organizational structure at every school.

Most of the commandants of the 140 schools are in the rank of general major (and rear admiral) although, according to Soviet law, the commandant of a higher military school should hold the rank of general lieutenant, and the commandant of a secondary military school should be a general major.<sup>10</sup> A possible explanation for this apparent discrepancy is that the law was promulgated in 1955 when most officer commissioning schools were of a secondary category. Since that time, as was noted earlier, the vast majority of these schools have been elevated to the status of a higher military school - i.e. 4 and 5 year schools.

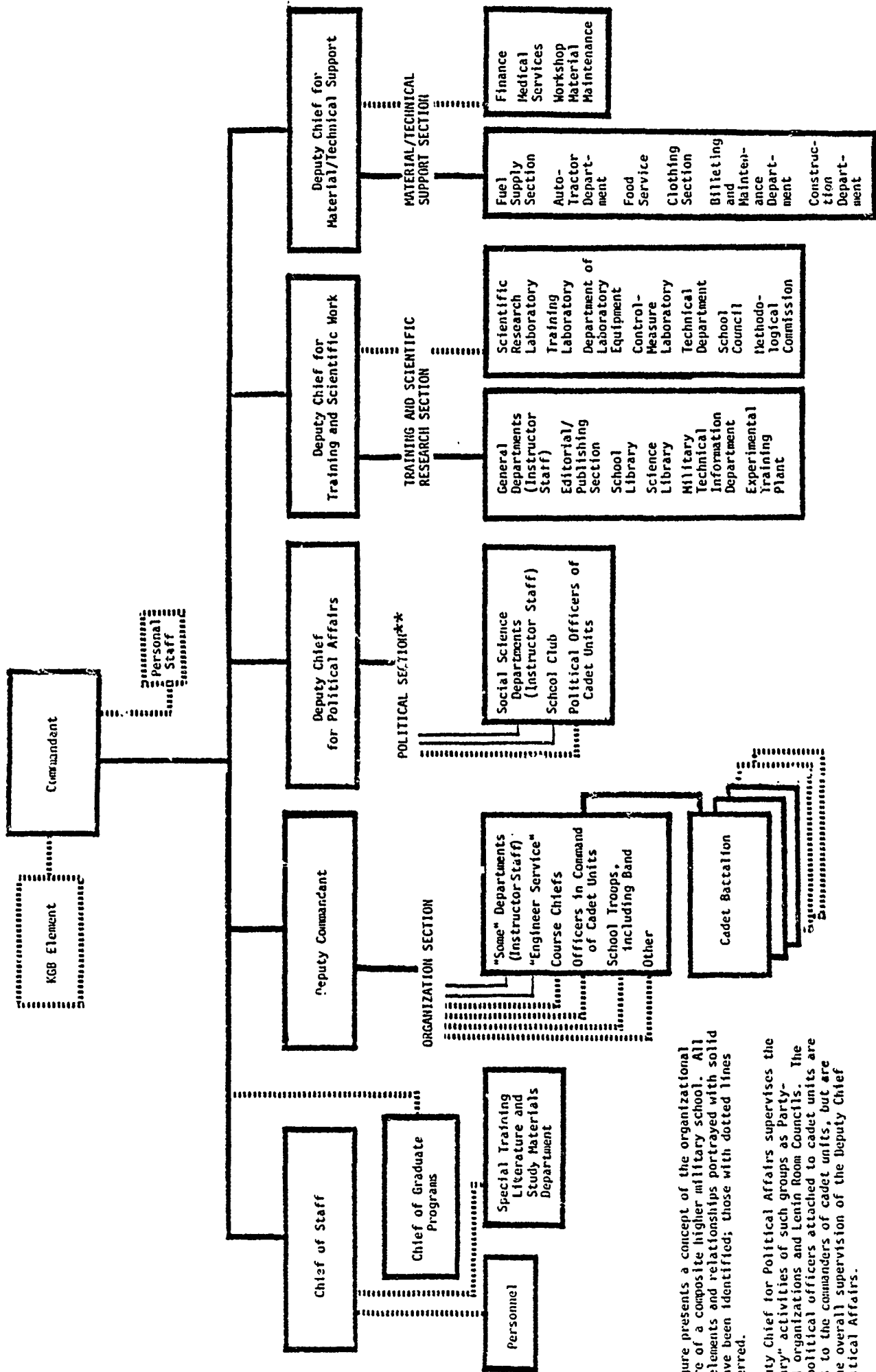
In Soviet military journals, the specific functions of some of the key personnel of higher military schools have been clearly defined. However, the role of others has only been addressed in oblique or generalized terms.<sup>11</sup> The commandant of a higher military school is the director of all personnel at the school and bears full responsibility for all of its activities. He has four principal deputies who constitute the command element and whose functions may be briefly summarized as follows:

- The Deputy Commandant of the school is responsible for the Organization (Stroyevoy) Section which "performs the work of maintaining the

10. "Regulations Governing the Military Service of Officers, Generals, and Admirals" (April 29, 1955) by A. G. Gornyy in a Handbook on Legislation for Officers of the Soviet Army and Navy, Moscow, 1970, p. 182.

11. Some further clarification of the staff and functions of these schools was provided in Bases of Scientific Organization of Effort in Military Training Institutions, edited by F. P. Tonkhik, Military Publishing Company, Moscow, 1974.

Figure 1  
A Composite Organizational Structure  
for a Soviet Higher Military School\*



\*This figure presents a concept of the organizational structure of a composite higher military school. All of the elements and relationships portrayed with solid lines have been identified; those with dotted lines are inferred.

\*\*The Deputy Chief for Political Affairs supervises the "voluntary" activities of such groups as Party-Komsomol organizations and Lenin Room Councils. The career political officers attached to cadet units are deputies to the commanders of cadet units, but are under the overall supervision of the Deputy Chief for Political Affairs.

subunits of the school with several categories of personnel and organizes the guard and (headquarters) commandant's services." The Deputy Commandant may supervise "specialized" courses, which include the military disciplines applicable to a given service or branch of the Soviet Armed Forces-- such as artillery training at an artillery school. This section also contains the career officer commanders of cadet units, the schools troops, and "engineer service," whose precise functions have not been ascertained.

- The Deputy Chief for Political Affairs has overall responsibility for Party/political activities at the school. As Chief of the Political Section, he heads the social science departments, which present and organize work in the "political and soldierly" education of personnel. He also exercises close supervision over the career political officers assigned to the subunits of the cadet organization as political deputies of the commanders.
- The Deputy Chief for Training and Scientific Work, as Chief of the Training and Scientific Research Section, organizes and directs all training, methodological scientific research, and editing and publishing activities.<sup>12</sup> He is also directly responsible for the general academic departments, as well as the library and experimental training plant.
- The Deputy Chief for Material and Technical Support directs the work of billeting and maintenance, construction, and auto-tractor departments, as well as rations, clothing, and fuel supplies. He probably is also responsible for other support functions which have been identified; e.g., medical services, finance, and maintenance of workshop material.

A few comments may be made about the commanders of cadet units and the school troops, both of whom, as noted, are under the supervision of the deputy commandant. The primary functions of the career officers who are attached to the cadet units include:

- General supervisory and indoctrination activities;
- Specific responsibilities for tactical drills, study sessions, and preparations for cadet seminars and examinations; and
- The active involvement of cadets in military-scientific study circles formed within the academic departments of the school.

Although instructors of "specialized" military disciplines bear the major responsibility for cadet tactical training and exercises, commanders of cadet units are also significantly involved in organizing the classes and exercises and in the conduct of field training, both at the school and with field units where they accompany their cadet units on troops tours.

In terms of manpower, the school troops represent a significant element of school personnel. Some fragmentary information regarding the functions of

<sup>12</sup> The Editorial-Publishing Section publishes training materials, scientific works, and textbooks. Approximately one-third of all textbooks for naval educational establishments were written and published at the Frunze Higher Naval Political School.

school troops indicates they assist instructors and cadets in keeping training equipment in proper condition and support cadet activities during field training exercises.

Finally, the cadet student body<sup>13</sup> is normally organized in the form of battalions -- three or more which, in turn, are subdivided into three companies (batteries) of three platoons each. Commanders of cadets are attached to units down to the platoon level and their political deputies, in a parallel structure, down to the company level.

### C. The Instructor Complement

A survey of military literature tends to indicate that the most prevalent rank of heads of departments at higher military schools is colonel. About one third of the instructors identified had the rank of colonel and one third the rank of lieutenant colonel. Insofar as the academic qualifications of instructors are concerned, Soviet military journals refer repeatedly to an ongoing, two-fold process of:

- Gradually replacing older instructors, who are the products of secondary (three-year) military schools, with more recent graduates who have had training in higher (four and five-year) military institutions granting titles of engineer; and
- Increasing the number of instructors who have had graduate training.<sup>14</sup>

This process of academic upgrading was promulgated in directives by the 24th (1971) and 25th (1976) CPSU Congresses. Soviet sources claim that 50% of the officers (i.e., more than six times greater than in the pre-war period) have a higher military education, which include some 90% of the regimental commanders and 100% of the commanders of 1st and 2nd class ships. Such academic achievement implicitly indicates there is also a greater number of instructors with higher academic qualifications. Although the precise extent of progress which has been made in elevating the academic qualifications of instructors is not currently known, the determined efforts and trends are quite evident.

#### 1. "Commander"

As noted previously, the Soviet officer is expected to be a combination of commander, technocrat (i.e., military specialist), and educator (i.e., indoctrinator). The task of an instructor to instill command or leadership qualities in a cadet would appear to be most difficult. Authoritative Soviet pronouncements with regard to the need for developing "initiative"

<sup>13</sup>. According to such Soviet sources as the Air Defense Herald (Issue No. 1, January 1977, pages 45-49) and "Voyennyye Akademii i Uchilishcha," by I. A. Kamkov and V. M. Konoplyanik, Moscow, 1974, as translated in the Joint Publications Research Service Issue No. 1144, June 4, 1975, page 77, the cadet student body consists of four civilian candidates for every two extended service personnel.

<sup>14</sup>. In the Soviet Union, a candidate of science degree is almost equivalent to a Ph.D. in the U.S. There is no U.S. equivalent to the higher Soviet degree of doctor of science. The title of "professor" is usually, but not necessarily, accorded to those who hold a doctor of science degree, and the title of docent (assistant professor) is usually given to a candidate of science.

in officers are numerous. For example, the late Marshal Grechko asserted that an officer must be able to take "independent action,"<sup>15</sup> and Marshal P. F. Batitskiy, former Commander-in-Chief of National Air Defense, has maintained that primary attention in military institutions should be paid to the development of "creative thinking and wise initiative..."<sup>16</sup> Given the inherent constraints imposed upon creative or independent thinking by adherence to the precepts of Marxism-Leninism, as well as Party directives, the prescription for independent action on the part of an officer, and the instructor's task of developing this capability in cadets, must create internal tensions which are not easily resolved by the instructor (or the Soviet leadership).

In addition to academic training, instructors must also have experience as commanders of units in order to impart the qualities of a commander and provide practical orientation to cadets. Therefore, good sources of officers for this phase of instruction, other than military educational institutions, are military units in the field. For example, at the Yaroslavl' Higher Surface-to-Air Missile Command Air Defense School, one department recruits instructors directly from operational units, so that a "significant" proportion of the school's instructors have troop experience. According to one Soviet military journal, advancement of the best officers from military units in the field to assignments as instructors represents one of the most important tasks in the management of Soviet officer personnel. Various Soviet references also claim that the number of officers who have served as commanders of battalions, divisions, air squadrons, and ships and who have subsequently been accepted on faculties of higher military command schools has increased significantly in recent years. The apparent balance of favorable comments, along with criticisms of short-comings, by Soviet military writers of instructors who, on the one hand, lack practical experience and those who, on the other hand, lack theoretical training reflects the ultimate goal of developing staffs that are efficient and knowledgeable in all major categories of instruction.

## 2. "Technocrat"

Creating what some Soviet writers refer to as a "revolution in military affairs," technological developments in modern warfare and weaponry have resulted in the demand that officers possess the qualities not only of commanders and indoctrinators, but also of military specialists and technicians. This, in turn, creates the need for continually improving the level of scientific and methodological training of instructors since, as Soviet military journals repeatedly assert, the quality of the officer is directly dependent upon the level of professional and scientific qualifications of the instructors. Depending upon his functional mission, every officer is expected to have an in-depth understanding of, or at least some exposure to, higher mathematics, physics, chemistry, electrical and radio engineering, and the fundamentals of cybernetics. As a consequence, there has been a substantial increase in the number of officers receiving engineering degrees from the military engineering and technical support schools. This increase is reflected in the following figures:

15. Air Defense Herald, Issue No. 1, January 1976, page 79.

16. Ibid., Issue No. 4, April 1976, pages 6-13.

- 1940 -- 16.3%
- 1956 -- 28.4%
- 1963 -- 43.4%
- 1977 -- 50% (70% of SRF officers are reportedly engineers)<sup>17</sup>

The emphasis upon technical subjects obviously requires staffs of instructors with sufficient skills to meet the training requirements. As a result of the technological advances in weapons system, the instructor, as a key figure in the training system, must increasingly develop his scientific knowledge.

### 3. "Indoctrinator"

In view of the dominant role of the Party/political structure within the military school system, it is obvious that the line officer (e.g., troop or ship commander) must also be a political indoctrinator (or "educator"), as well as a commander and technical expert. The task of training cadets to become "politically mature," which is echoed in Soviet military journals, is pursued in every school by means of a variety of basic social science courses dealing with various aspects of Marxism-Leninism and Party/political work. Great emphasis also is placed upon pedagogical and psychological studies because both instructors and cadets must master the fundamentals of teaching in order to have the capability to train and indoctrinate men. Classes on pedagogy are conducted for young instructors by department heads and more experienced teachers. Of course, those cadets who are in training at the military-political schools must focus upon ideological and Party/political work which will be their primary specialty as political officers. However, considerable emphasis is also placed upon the military education of these political officer candidates. It has been noted that 100% of the chiefs of military-political organizations and 80% of regimental political officers have higher military educations. Furthermore, every fourth political officer has an engineering degree.<sup>18</sup> With regard to the mandatory requirement characterized by Marshal Grechko as "ideological conviction", instructors and commanders must serve as models for cadets and present military training from a Marxist-Leninist point of view. The importance attached to shaping a communist "world view" in military institutions as one of the most important elements in unifying the training and education cannot be overstated.

## D. Curriculum

### 1. The Academic Program

The academic curriculum appears to be divided between general courses and specialized courses or disciplines. A sample of some basic, general courses would include:

- General sciences (e.g., physics and chemistry),
- Social sciences (e.g., Marxism-Leninism, political economics, scientific communism, and History of the CPSU).
- Mathematics,

17. Military Herald, Issue No. 1, January 1974, pages 7-11. Each service has its own engineering schools.

18. Red Star, June 3, 1976, page 2.

- Military history, and
- Training in individual marksmanship.

Depending upon the general profile of the school, specialized courses may include:

- Pilot training
- Aerial navigation,
- Antisubmarine warfare,
- Missile guidance control,
- Gunnery and fire control, and
- A myriad of military service/branch-oriented subjects.

Based upon a survey of military articles, it is apparent that course work is replete with lessons to be learned from the "Great Patriotic War".

## 2. Field Training

In addition to the academic curriculum, each school has a training program which includes extensive field training involving:

- Outdoor training material and equipment,
- Studies and application,
- Field training problems at the school, and
- Participation in the field or shipboard training exercises and maneuvers with regular troop units or a ship's complement.

During a field training problem, which simulates basic combat situations, it is reported that the cadets are expected to:

- Analyze and digest a pre-assigned mission;
- Give an "estimate of the situation";
- Implement their decision-making process by issuing proper combat orders with emphasis upon "bold" and rapid decisions in precise command language and with proper knowledge of the main statutes of Combat Regulations; and
- Practice with the various items of military equipment under field conditions, such as the equipment available to a motorized infantry subunit in the attack. (Cadets are also encouraged to apply techniques involving surprise, stealth, and initiative, but not at the expense of tested, successful experience and techniques).<sup>19</sup>

A great deal of importance is attached to both the experience gained by cadets in their training with active military units, and to the field experience acquired by their instructors. Instructors accompany cadets on tours to active military units, and also are assigned personally to temporary field or sea duty in active military units and attend tactical exercises for the purpose of studying the latest equipment and methods in use in these units. In a discussion of how even short tours with active military troop units contribute to the development of military expertise and to the maintenance of training on requirements, it was noted that in 1976 over 30% of all the instructors at the Minsk Antiaircraft Missile School visited active military units.

<sup>19</sup> Military Herald, Issue No. 9, September 1975, pages 75-76.



Finally, a recurring theme in military literature, reflecting the Leninist dictum of the unity of theory and practice, stresses the maintenance of school ties with the civilian sector for political indoctrination. For example, Soviet journals comment that: ties between school personnel and Party/Soviet organizations, enterprises, and institutions in cities and oblasts continue to be strengthened. Also, PVO schools use specific practical material in classrooms to achieve unity of theory and practice; i.e. in social science classes, the instructor teaches the history of activities in local Party organizations and labor activities in collectives of industrial enterprises. Coupled with the pervasive political apparatus in the school, the interactions between the cadets/faculty and civilian organizations, reflect a marked departure from the US system of military training. In fact, this represents a basic aim of the Soviet leadership since 1917 to control and integrate the population by politicizing the military and militarizing society.

### 3. Scientific Military Research

On the occasion of the thirty-first anniversary of the end of World War II, Marshal Kulikov, a Soviet 1st Deputy Minister of Defense and Commander-in-Chief of the Warsaw Pact Forces, made the following observation with regard to the importance of military science and technology to the Soviet Armed Forces:

"...Under conditions of rapid scientific-technical advancement, the role of Soviet military science is also growing, since it is one of the important factors in strengthening the power and combat readiness of the Armed Forces... The experience of past wars demonstrates quite clearly that the state of science has a serious bearing on the outcome of military conflict. The closer the tie between military theory and practice, the greater the consideration given to the development of new types of weapons and military technology, the better that military thought can grasp the nature of the phenomenon of war, the more reliable the predictions of future conflict, then the greater the probability of success in armed conflict...

One of the essential tasks of military-scientific work is the future development of tactics for modern combined-arms, air, air defense and naval warfare...

Higher staffs, military academies and scientific research establishments have an important role in accomplishing this task, as they are called upon to be genuine centers of theoretical research and able coordinators of all scientific work."<sup>20</sup>

Given the imperatives of modern technology, a central role is assigned to scientific-military research which is apparent in the organizational description presented in Figure 1. As previously indicated, the Training and Scientific Work Section, under the supervision of a deputy to the commandant of the school, is responsible for scientific research. The system of

<sup>20</sup>. Kommunist, May 1976, as translated in Strategic Review, U.S. Strategic Institute, Washington, D. C. Winter 1977, pages 127-131.

scientific research includes a number of different elements (e.g. military scientific circles, student design bureaus, and commissions on inventions) created for the purpose of facilitating the development of independent research throughout the entire cadet body. It should be noted that instructors are also required to actively participate in research and to assimilate new methods. Aside from theoretical work, the task of these student and instructor "innovators", "efficiency experts", or "rationalizers", as they are frequently characterized, is to seek new, more efficient methods for employment of tactical personnel, as well as the employment, storage, maintenance and repair of military equipment and weapons.

#### E. An Estimate of the Manpower Associated with Soviet Higher Military Schools

Precise numbers with regard to the manpower associated with Soviet higher military schools are obviously unavailable in the open literature. However, careful research has resulted in the identification and description of a sufficient number of the organizational elements to provide some insight into the manpower associated with these schools. Based on this information, the estimate of the manpower levels of staff/faculty/support of an average school is approximately 900. Therefore, the organizational manpower associated with the 140 schools is approximately 125,000. It is also estimated that about 5-10% of the personnel are civilians. The estimated number of students at the 140 schools ranges from 160,000 to 240,000, with an average of about 50,000 cadets being commissioned annually.

#### F. Other Military Institutions

There are three military institutes with specialized profiles providing programs of study for officer candidates. The first, the Military Engineering Institute/A. F. Mozhayskiy, has a five year program and graduates military engineers. The second, the Military Institute, trains military linguists and military legal personnel and is also a five year school. Finally, the Military Institute of Physical Culture, which is a four year school, accepts civilians, extended servicemen, and warrant officers. Military musical directors are trained at the Moscow State Conservatory/P. I. Chaikovskiy, where the course is five years.

Certain military personnel are trained in military faculties established in civilian higher educational institutions (e.g., medical and financial). These faculties were first organized during the 1920s. By the mid-1970s, there were military faculties at the Gorkiy, Saratov, Tomsk, and Kuybyshev Medical Institutes, and at the Moscow Finance Institute. Military departments also exist at many universities. Some military faculties, especially medical, have the mission of improving the qualifications of officers by means of advanced courses (e.g., the Leningrad Institute for Advanced Training of Physicians).

## II. Military Academies and Other Advanced Officer Training

### A. Military Academies

Until the day the Soviet officer transfers to the reserves or retires, he continues to receive further education and advanced training from a variety of sources. The most important of these is the military academy. Graduates of the military academies are placed on special lists in terms of assignments. An estimated 20-25% of the officer corps attends academies.

Subsequent to his graduation from a higher military school, but prior to his selection for a military academy, the newly commissioned lieutenant is assigned to an active military unit in which he will command a platoon or its equivalent. In general, the officer will spend 4-6 years with troops before he is considered for selection to a military academy.<sup>21</sup> However, officers begin to prepare for the difficult competitive entrance examinations some 2-3 years beforehand. Academies have fixed annual quotas and entry level can range from senior lieutenant to major with captain being the most common rank. The academy which the officer will attend is determined primarily by the higher military school which he attended and his branch of service or force component, since there is a close affiliation between these which extends to the military academy. A summary of the various Soviet military academies is as follows:<sup>22</sup>

- Strategic Rocket Troops
  - Dzerzhinskiy Military Academy
- Ground Forces
  - Combined Arms: Frunze Military Academy
  - Tank Troops: Malinovskiy Military Academy of the Armed Forces
  - Rocket Troops and Artillery: Kalinin Military Artillery Academy
  - Air Defense Troops: Military Academy of Air Defense of the Ground Forces
  - Special Troops
    - o Signal Troops: Budennyy Military Academy of Signals
    - o Chemical Troops: Timoshenko Military Academy of Chemical Defense
- Air Forces
  - Gagarin Military Air Academy
- National Air Defense
  - Zhukov Military Command Academy of Air Defense
- Navy
  - Grechko Military Naval Academy

21. Questions of Training and Education in Military Institutions of Learning, I. N. Shkadov, Voenizdat, Moscow, 1976, page 43.

22. All of the military academies, except Dzerzhinskiy, are identified with a specific force component or branch of service by virtue of their title and/or in Soviet open sources. Inasmuch as the SRF is not associated with any academy, it is presumed, by a process of elimination, that Dzerzhinskiy trains SRF officers. The Academy for the Air Defense Troops of the Ground Forces recently opened in September, 1977.

- Rear Services
  - Military Academy of Rear Services and Transport
  - Kirov Military Medical Academy
- Military Engineer Academies
  - Special Troops: Kuybyshev Military Engineering Academy
  - Air Forces: Zhukovskiy Military Air Engineering Academy
  - National Air Defense: Govorov Military Engineering Radio-technical Academy of Air Defense
- Political Academy
  - Lenin Military-Political Academy
- MVD Academy<sup>23</sup>

Most of the Soviet military academies offer correspondence courses in addition to their regular courses of instruction. Selection for these correspondence courses is by means of the same stringent competitive examinations to which a fulltime student is subjected. At the completion of the correspondence portion of a course, the student officer undergoes a short period of review at the academy, at the conclusion of which he takes the same final examinations as a fulltime student.

#### B. Other Advanced Officer Training

The next step in the formal training education of Soviet officers is the Higher Officers' Courses conducted by force components and service branches. In general, these courses do not require an officer to pass an entrance examination, but those who attend are field-grade officers who have graduated from military academies. Of the Higher Officer' Courses, the best known is "Vystrel" (i.e., "the shot") or the 1st Higher Officers' Course/MSU B. M. Shaposhnikov. As much as 75% of the time during the one-year course is spent in the field, on test ranges, in tank-dromes, and on firing ranges. The courses are intended primarily for Soviet officers of the Ground Forces.

The Higher Officers' Courses which have been identified include the:

- First Higher Officers' Courses/MSU B. M. Shaposhnikov,
- Central Artillery Officers' Courses/Marshal of Artillery V. I. Kazakov,
- Central Advanced Courses for Political Staffs,
- Higher Central Officers' Courses of Civil Defense,
- Lipetsk Higher Air Forces Officers' Courses,
- Central Radiotechnical Officers' Courses of National Air Defense, and
- Courses for officers of the veterinarian service at the Moscow Veterinarian Academy.

The Navy also has Higher Special Officers' Classes for ship commanders, their political deputies, and staff specialists. These Classes are located in Leningrad, where they have been given since 1827. In 1976, the Classes had

<sup>23</sup> The Soviet Military Encyclopedia states that MVD officers receive higher military training at Ministry of Defense (MoD) academies. Therefore, the MVD Academy probably provides training for other MVD elements, such as militarized civil police (militia), militarized fire guards, and other less clearly identified MVD personnel at various administrative levels. It is likely that some MVD officers also attend the MVD Academy for specialized training. The Academy opened 3 Sept. 1974.

three training profiles (i.e., command, political, and engineer), and the length of the course of training was less than one year. One which has been identified is the Higher Officers Aviation-Tactic Courses of the Navy. At the present time, it is not clear whether these Classes are conducted for naval officers before they attend the Naval Academy or after they graduate from the Academy. In order to be consistent with the Higher Officers' Courses of other force components, it would appear that these Classes should be presented to naval officers after they have graduated from the Naval Academy. Nonetheless, some biographies of Soviet admirals indicate that they took the courses after some 3-6 years of commissioned service; i.e., before entry into the Naval Academy. It should be noted, however, that the training procedures reflected in these biographies may have been superceded.

Military academies also offer advanced training for officers. Graduates of academies may return to pursue Higher Academic Courses which are designed to provide advanced training and to keep abreast of new military theoretical and technological developments.

Notably, classes are conducted within military districts to provide advanced or refresher training, presumably for officers who are not military academy graduates. The classes are presented on an informal, continuing basis.

#### C The Military Academy of the General Staff

The final formal step in officer training is, of course, the selection to the Military Academy of the General Staff of the Soviet Armed Forces/K. Ye. Voroshilov, an institution of higher military education with an operational/strategic profile. It is also a center for theoretical military research in the fields of military arts and sciences. Attendance at this Academy represents the pinnacle of a Soviet officers' educational career, which normally occurs between the ages of 35 and 40. It is thought that about 1/2 of the Academy's students are alumni of the Frunze Academy. Selected officers in the rank of colonel or first-rank captain, rear admiral or general major, and perhaps a few vice admirals or generals lieutenant, attend the basic course at this Academy. Admission to this two-year school is by "special situation" (or selection), and the graduates are placed on a special list with respect to assignments and are thereby assured to key positions in the Soviet Armed Forces. The ministers of defense of many Warsaw Pact countries have also attended this Academy; for example, Hoffman of East Germany, Lomsky of Czechoslovakia, and Ionetse of Rumania. Defense Ministers Tsog of Mongolia and Vo Nyugen Giap of Vietnam have also studied at the Academy. As stated in the Military-Historical Journal of January 1967, there is scarcely a member of the Soviet High Command who is not a graduate of the General Staff Academy. Great attention is accorded to training scientific and instructor personnel. In 1976, about 60% of the instructors of the Academy had advanced degrees and titles. Major collections on the most important questions of military science have been written at the Academy, to include the structure of the Soviet Armed Forces, the direction of the Armed Forces in war and major operations, and Marxist-Leninist methodology. The General Staff Academy also conducts Higher Academic Courses.

#### D. Postgraduate Programs

Soviet officers are increasingly obtaining advanced degrees, such as candidates of military sciences, historical sciences, technical sciences, geographical sciences, naval sciences, philosophical sciences, pedagogical

sciences, psychological sciences and others. This is being accomplished by means of fulltime study or correspondence courses. The General Staff determines which school and scientific research institutions may offer advanced degrees.

All of the Soviet military academies, some higher military engineering schools, and the Higher Naval School/Frunze offer postgraduate education programs leading to advanced academic degrees (i.e., Candidate of Sciences or Doctor of Sciences). These are fulltime programs of not more than 3 years. Some academies also offer correspondence programs of not more than 4 years. A third category of postgraduate education is the special-purpose postgraduate program. This special one-year program is designed for instructors at higher military educational institutions. The instructor must have completed all of his candidate's examinations and research work so that he is able to complete his dissertation within one year. Academic degrees of postgraduate students are closely controlled by the authorities and permission to enter the various programs is not easy to arrange.

#### E. Central Hierarchy of the Officer Military Educational System

The organization associated with the Soviet officer education system, other than at the schools, extends from the military district to the MoD level. At the military district level a senior staff officer of general rank is usually designated as Deputy (or Assistant) to the Commander for Military Training Institutions and is responsible for the administrative functions associated with the schools in his district.<sup>24</sup> (He also has responsibility for supervising premilitary training and reserve training in higher civilian educational institutions).

At the service level, officers of general rank have been identified as deputy commander-in-chief of their respective components for VUZ.

Finally, at the MoD level, there is a Main Directorate of Military Educational Institutions, currently headed by General Colonel Tank Troops V. A. Makarov who supervises the 140 schools.

The precise interfacing among the various VUZ deputies at this central level is not clear. For example, it is believed that service/branch logistical support and guidance for certain schools may emanate as much from their respective force components as from the military districts.

#### F. Overall Manpower Estimates

Efforts to estimate the manpower devoted to the Soviet officer school system are difficult, based upon information that is currently available. Various estimates by Western analysts put the figure of the average number of cadets at a school between 1200 to 1800, and an average of 900 for staff/faculty/support personnel. This would suggest a range for the 140 schools of 160,000 to 240,000 for cadets and about 125,000 total for school personnel. The total

<sup>24</sup>. Some military districts have 20 or more schools (e.g. Moscow and Kiev Military Districts) while others have only one or two (e.g. Transbykal and Belorussian Military Districts).

school enrollment at the academy and higher courses' level is estimated to be approximately 50,000 with about 50,000 staff/faculty/support. At the central level, administrative personnel probably approach 5,000. The foregoing estimates indicate a total manpower range of 400,000 to 480,000.

Some Western observers estimate the percentage of the officer corps of the Soviet Armed Forces to be about 15-20%, which would mean 720,000 to 960,000 officers, utilizing the figure of 4.8 million total Armed Forces. Given a length of service of 25 to 30 years and a 10% attrition rate, it would appear necessary to commission some 40,000 officers per year to maintain this size corps. This is comparable to an average cadet population of 160,000. It may be noted that the extent of the Soviet reserve officer corps (i.e. those who receive commissions at civilian universities) is unknown.

APPENDIX

LISTING OF THE 140 SCHOOLS WHICH  
COMMISSION OFFICERS IN THE USSR ARMED FORCES\*

\*These schools have been identified in Red Star, 17 January 1980.



## Strategic Rocket Forces (SRF)

All the schools, with the exception of the following five, are specifically linked to force components or branches of service. In addition, no schools are identified in Soviet open sources as SRF schools. On this basis, and since two of the five schools are named after former SRF commanders, it is assumed that they are SRF schools. While no higher military engineering school has been identified with the training of SRF military engineers, it is thought that the engineering faculty at the Dzerzhinskiy Academy serves this function. SRF schools offer a five year program and the political school a four year course of study.

- Perm' Higher Military Command School
- Rostov Higher Military Command School/CMA\* M. I. Nedelin
- Serpukhov Higher Military Command School/Lenin's Komsomol
- Khar'kov Higher Military Command School/MSU\*\* N. I. Krylov
- Riga Higher Military-Political School/MSU S. S. Biryuzov

## Ground Forces

Various groups of higher military schools are associated with the Ground Forces, most of which offer a four year course of study in the command and political schools. The higher military engineering schools generally include a five year program. These schools accept enlisted personnel and warrant officers as well as civilian youths as students. Total number of schools is 36.

- Combined Arms Schools
  - Alma-Ata Higher Combined Arms Command School/MSU I. S. Konev,
  - Baku Higher Combined Arms Command School/Supreme Soviet Azerbaydzhan Soviet Socialistic Republic (SSR),
  - Far Eastern Higher Combined Arms Command School/MSU K. K. Rokossovskiy,
  - Kiev Higher Combined Arms Command School/M. V. Frunze,
  - Leningrad Higher Combined Arms Combined School/S. M. Kirov,
  - Moscow Higher Combined Arms Command School/Supreme Soviet RSFSR,
  - Omsk Higher Combined Arms Command School/M. V. Frunze,
  - Ordzhonikidze Higher Combined Arms Command School/MSU A. I. Yeremenko, and
  - Tashkent Higher Combined Arms Command School/V. I. Lenin.

\*CMA = Chief Marshal of Artillery

\*\*MSU = Marshal of the Soviet Union

- Novosibirsk Higher Military-Political Combined Arms School
- Minsk Higher Military-Political Combined Arms School
- Airborne School
  - Ryazan' Higher Airborne Command School/Lenin's Komsomol
- Tank Schools
  - Blagoveshchensk Higher Tank Command School/MSU K. A. Meretskov
  - Chelyabinsk Higher Tank Command School/50th Anniversary of the October Revolution
  - Kazan' Higher Tank Command School/Presidium of the Supreme Soviet Tatar ASSR
  - Khar'kov Guards Higher Tank Command School/Supreme Soviet Ukraine SSR
  - Tashkent Higher Tank Command School/Marshal of Tanks P. S. Rybalko
  - Ul'yanovsk Guards Higher Tank Command School/V. I. Lenin
  - Omsk Higher Tank Engineering School/MSU P. K. Koshevoy
  - Kiev Higher Tank Engineering School/MSU I. I. Yakubovskiy
  - Sverdlovsk Higher Military-Political Tank-Artillery School
- Rocket Troops and Artillery Schools
  - Khmel'nitskiy Higher Artillery Command School
  - Kolomna Higher Artillery Command School/October Revolution
  - Leningrad Higher Artillery Command School/Red October
  - Odessa Higher Artillery Command School/M. V. Frunze
  - Sumy Higher Artillery Command School/M. V. Frunze
  - Tbilisi Higher Artillery Command School/26 Baku Commissars
  - Saratov Higher Military Command School/HSU\* General Major A. I. Lizyukov
  - Penza Higher Artillery Engineering School/CMA Voronov
  - Tula Higher Artillery Engineering School/Tula Proletariat

←  
Anniversary?

\*HSU = Hero of the Soviet Union

- Kazan' Higher Engineering School

(Artillery and Tank groups use the same military-political school -- i.e. Sverdlovsk.)

- Air Defense Troops Schools

- Leningrad Higher Surface-to-Air Missile Command School/60th October
- Orenburg Higher Surface-to-Air Missile Command School/G. K. Ordzhonikidze
- Poltava Higher Surface-to-Air Missile Command School/GA N. F. Vatutin
- Smolensk Higher Surface-to-Air Missile Engineering School
- Kiev Higher Surface-to-Air Missile Engineering School/S. M Kirov

Troops of National Air Defense Schools (PVO Strany)

Each of the three major branches of National Air Defense Troops (Fighter aviation; Surface-to-Air missile troops; and Radiotechnical troops) has its own schools which offer a four year program for qualified civilian youths, warrant officers, and enlisted personnel. The military engineering schools provide a 5 year course of study.

- Fighter Aviation Schools

- Armavir Higher Military Aviation School of Pilots of Air Defense
- Stavropol' Higher Military Aviation School of Pilots and Navigators of Air Defense
- Daugavpils Higher Aviation Engineering School of Air Defense/Yan Fabritsius
- Leningrad Higher Military-Political School of Air Defense

- Radioelectronics Schools

- Krasnoyarsk Higher Command School of Radioelectronics of Air Defense
- Pushkin Higher Command School of Radioelectronics of Air Defense
- Vil'nius Higher Command School of Radioelectronics of Air Defense
- Zhitomir Higher Command School of Radioelectronics of Air Defense/Lenin's Komsomol
- Kiev Higher Engineering Radiotechnical School of Air Defense

- Surface-to-Air Missile Schools

- Engels' Higher Surface-to-Air Missile Command School of Air Defense
- Dnepropetrovsk Higher Surface-to-Air Missile Command School of Air Defense
- Gor'kiy Higher Surface-to-Air Missile Command School of Air Defense
- Ordzhonikidze Higher Surface-to-Air Missile Command School of Air Defense/I. A. Pliyev
- Yaroslavl' Higher Surface-to-Air Missile Command School of Air Defense/60th October
- Minsk Higher Engineering Surface-to-Air Missile School of Air Defense

### Air Force Schools

The Soviet Air Forces maintain separate higher military aviation schools for the training of pilots and navigators and also produce officers for the aviation branch of the Navy. There are a total of 26 schools -- 5 of which are 3 year technical schools. Pilot and navigator schools are 4 years and engineering schools are 5 years.

- Pilot Schools

- Balashov Higher Military Aviation School of Pilots/CMA\* A. A. Novikov
- Barnaul Higher Military Aviation School of Pilots/CMA K. A. Vershinin
- Borisoglebsk Higher Military Aviation School of Pilots/V. P. Chkalov
- Chernigov Higher Military Aviation School of Pilots/Lenin's Komsomol
- Kacha Higher Military Aviation School of Pilots/A. F. Myasnikov
- Khar'kov Higher Military Aviation School of Pilots/HSU S. I. Gritsevets
- Orenburg Higher Military Aviation School of Pilots/I. S. Polbin
- Syzran' Higher Military Aviation School of Pilots
- Tambov Higher Military Aviation School of Pilots/M. M. Raskova

\*CMA = Chief Marshal of Aviation

- Yeysk Higher Military Aviation School of Pilots/HSU V. M. Komarov
- Saratov Higher Military Aviation School of Pilots
- Navigator Schools
  - Voroshilovgrad Higher Military Aviation School of Navigators/Donbas Proletariat
  - Chelyabinsk Higher Military Aviation School of Navigators/50th Anniversary of the Komsomols
- Signals School
  - Khar'kov Higher Military Aviation Command School of Signals/Lenin's Komsomol of the Ukraine
- Technical Schools (i.e., three-year secondary schools)
  - Achinsk Military Aviation Technical School/60th Komsomol
  - Kaliningrad Military Aviation Technical School
  - Perm' Military Aviation Technical School/Lenin's Komsomol
  - Vasil'kov Military Aviation Technical School/50th Anniversary of Lenin's Komsomol of the Ukraine
  - Kirov Military Aviation Technical School
- Air Force Engineering Schools
  - Voronezh Higher Military Aviation Engineering School
  - Irkutsk Higher Military Aviation Engineering School/50th Komsomol
  - Kiev Higher Military Aviation Engineering School
  - Riga Higher Military Aviation Engineering School/Ya. Alksnis
  - Tambov Higher Military Aviation Engineering School/F. E. Dzerzhinskiy
  - Khar'kov Higher Military Aviation Engineering School
- Air Force Political School
  - Kurgan Higher Military-Political Aviation School

## Navy Schools

The higher naval schools, which produce officers who are navigators and missile, artillery and antisubmarine specialists offer five year programs. They are collocated with the four fleets and the Caspian Flotilla. The oldest naval school, named after M. V. Frunze was originally established in 1701 by Peter the Great.

- Command Schools
  - Caspian Higher Naval School/S. M. Kirov
  - Chernomorskoye (Black Sea) Higher Naval School/P. S. Nakhimov
  - Kaliningrad Higher Naval School
  - (Leningrad) Higher Naval School/M. V. Frunze
  - Tikhookean (Pacific Ocean) Higher Naval School/S. O. Makarov
- Submarine School
  - (Leningrad) Higher Naval School of Underwater Navigation/Lenin's Komsomol
- Radioelectronics School
  - (Leningrad) Higher Naval School of Radioelectronics/A. S. Popov
- Engineering Schools
  - Higher Naval Engineering School/F. E. Dzerzhinskiy
  - Leningrad Higher Naval Engineering School/V. I. Lenin
  - Sevastopol Higher Naval Engineering School
- Political School (4 year school)
  - Kiev Higher Naval-Political School

The following schools commission and train officers for the various branches of the USSR Armed Forces which are not part of the regular five services. In general, the command and political schools are 4 years and the engineering schools 5 years.

- Special Troops Schools (24 schools)
  - Engineer Troops
    - Kamenets-Podol'skiy Higher Military-Engineer Command School/ Marshal of Engineers V. K. Kharchenko

- Tyumen' Higher Military-Engineer Command School/Marshal of Engineers A. I. Proshlyakov
- Kaliningrad Higher Engineering School of Engineer Troops/A. A. Zhdanov
- Chemical Troops
  - Kostroma Higher Military Command School of Chemical Defense
  - Tambov Higher Military Command School of Chemical Defense
  - Saratov Higher Military Engineering School of Chemical Defense
- Signal Troops
  - Kemerovo Higher Military Command School of Signals
  - Novocherkassk Higher Military Command School of Signals/MSU V. D. Sokolovskiy
  - Orel Higher Military Command School of Signals/M. I. Kalinin
  - Poltava Higher Military Command School of Signals
  - Ryazan' Higher Military Command School of Signals/MSU M. V. Zakharov
  - Tomsk Higher Military Command School of Signals
  - Ul'yanovsk Higher Military Command School of Signals/G. K. Ordzhonikidze
  - Kiev Higher Military Engineering School of Signals/Kalinin
  - Leningrad Higher Military Engineering School of Signals/Lensovet
  - Stavropol' Higher Military Engineering School of Signals
  - Cherepovets Higher Military Engineering School of Radio-electronics
  - Donetsk Higher Military-Political School of Engineer and Signal Troops
- Automotive Troops
  - Samarkand Higher Military Automotive Command School/Supreme Soviet Uzbek SSR

- Ussuriysk Higher Military Automotive Command School
- Ryazan' Higher Military Automotive Engineering School
- Chelyabinsk Higher Military Automotive Engineering School
- Railroad Troops and Military Transportation (VOSO) School
- Leningrad Higher School of Railroad Troops and VOSO/M. V. Frunze
- Military Topography School
- Leningrad Higher Military Topographic Command School

- Rear Services

Officers for the Soviet Rear Services are produced in the following five higher military schools. The Gor'kiy school places special emphasis upon the naval rear services. The Ul'yanovsk Higher Military Technical School prepares officers who are military engineers qualified to store and transfer liquid fuels of all types using combat and auxiliary equipment. The Vol'sk School specializes in training officers in food and clothing supply. The Yaroslavl' Higher Military Finance School trains officers for the finance services of all components of the Soviet Armed Forces. The Moscow Road and Engineer Troops school is thought to be the former Civil Defense School. The courses at these schools are four years in length. Two other schools, previously listed under Air Force (Voronezh Engineering) and under Special Troops of the Ground Forces (Leningrad Railroad Troops and VOSO) are frequently also identified as Rear Service Schools.

- Gor'kiy Higher Military School of the Rear Services
- Ul'yanovsk Higher Military-Technical School/Bogdan Khmel'nitskiy
- Vol'sk Higher Military School of the Rear Services
- Yaroslavl' Higher Military Finance School/Khrulev
- Moscow Higher Command School of Road and Engineer Troops

- Construction Troops Schools

The following eight military schools train future officers for the Construction Troops. Notably, in the past year a second military-political school has been identified - Tallin - thus making two such schools for this branch of service.

- Tol'yatti Higher Military Construction Command School
- Kamyshin Higher Military Construction Command School
- Gor'kiy Higher Military Construction Command School
- Pushkin Higher Military Construction Engineering School



- Leningrad Higher Military Engineering Construction School/GA V. M. Komarovskiy
- Volga Military Construction Technical School (3 years)
- Simferopol' Higher Military-Political Construction School
- Tallin Higher Military-Political Construction School

- Miscellaneous Military Schools

L'vov Higher Military-Political School, which trains journalists, is not directly associated with any particular component of the Soviet Armed Forces. Krasnodar Higher Military School/S. M. Shtemenko, has recently been identified in Soviet open sources, without any further references.

- KGB/MVD

Officers of the KGB Border Guards and MVD Internal Troops, like those of the MoD, are long-term career personnel and are commissioned at military schools which are part of the overall military institutions of the Soviet Armed Forces -- with the provision that policy and direction of these schools are the responsibility of the KGB and MVD rather than MoD.

Officers for the KGB Border Troops are trained at three higher military schools, one of which trains political officers. The length of instruction is four years and the graduates, commissioned as "lieutenants", are qualified combined-arms officers. Apparently, KGB Border Guard Officers receive higher training at Frunze Military Academy -- which would be consistent with their combined arms cadet training. Moreover, most, if not all, maritime border guards officers are commissioned and trained at the regular MoD higher naval schools and receive higher training at the Naval Academy.

- Alma Ata Higher Border Guard Command School,
- Moscow Higher Border Guard Command School, and
- Golitsyno Higher Border Guard Military-Political School.

The Internal Troops of the MVD have five schools, of which three are command, one political, and one rear services (logistics). The course length of the MVD schools is four years and graduates, receiving the rank of "lieutenant", are qualified as officers of the "motorized rifle troops." According to the Soviet Military Encyclopedia, officer cadre of the MVD Internal Troops receive higher training at the Academies of the MoD.

- Saratov Higher Military Command School of the MVD,
- Novosibirsk Higher Military Command School of the MVD,
- Ordzhonikidze Higher Military Command School of the MVD,
- Leningrad Higher Political School of the MVD, and
- Khar'kov Higher Military School of the Rear Services of the MVD.