TOKAEV • SOVIET IMPERIALISM • DUCKWORTH

G. A. TOKAEV

Soviet Imperialism

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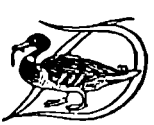
by

G. A. TOKAEV



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NOTE BY THE EDITORS

THE threat of a possible Third World War makes the problem of the strategy and tactics of the USSR one of the greatest interest. So far, however, little which is based on factual material has been published on this subject. It is for this reason that this essay has been compiled from a number of lectures and papers already published, or in course of preparation for a larger work, by Engineer Colonel G. A. Tokaev.

The value of this material is evident from the fact that the author himself assisted for nearly fifteen years in the formulation and practical application of most of the fundamental military and military-technical doctrines of the USSR. As engineer, as theoretical scientist and as aerodynamics expert, Col. Tokaev occupied since 1940 a series of increasingly important technical posts in Soviet aircraft production; and he was serving in 1948 in Berlin as Soviet expert on jet and rocket problems when he decided to cross over, with his family, to the west.

It should, however, be pointed out that this work is but an epitome and therefore cannot pretend to render accurately or fully Colonel Tokaev's original conceptions. Passages dealing with Soviet military-political and military-philosophical doctrine have been deliberately shortened and simplified so as to give the average reader an understanding of the fundamental trends of Soviet strategy and tactics, without going too deeply into the doctrines on which these are based.

Acknowledgement is made of the reprint of certain material already published by Col. Tokaev in *Flight*, and *The Economist*.

It is hoped this work may help the average reader to understand some of the problems with which the free world is now faced.

E. S. VIRPSHA
E. SYKES

CHAPTER I

GENERAL SOVIET STRATEGY

STALIN died in March 1953, but his massive war-machine still runs on the lines and in the directions which he laid down.

After the outbreak of the revolution in 1917–18 the old Russian Army was broken up and replaced by revolutionary semi-partisan formations, badly co-ordinated and badly controlled by their new General Staff. They were later reorganised by the Defence Commissar, Frunze, and by Marshals Voroshilov and Tukhachevski. It was not until 1933, at the beginning of the second five-year plan and after Trotsky and other opponents had been eliminated, that Stalin embarked upon the creation of a modern army, which is now the greatest and most comprehensive organisation in the USSR.

It is an open question whether Malenkov, who has succeeded Stalin as Premier, or Molotov, his second-in-command, have the ability to make any additions to the broad features of this colossal mechanism.

The strategy of Stalin was based on the technique of directing great masses of people—the Civil Service, the Communist Parties, the armies and even the peoples of whole nations—towards the attaining of a few clear objectives in the deadly conflict with their main adversary, the capitalist world.

This was accomplished by laying down the general lines of advance, by the deployment of man-power, and by the accumulation and co-ordination of resources by means of vast industrial and agrarian projects, both within and outside the USSR. These measures were reinforced by an

uninterrupted programme of ideological indoctrination at home, combined with infiltration, propaganda, strikes and unrest in the western countries and their colonial possessions.

In *Bolshevik* (a monthly magazine), No. 3 for 1948, it was stated: "It is necessary to convert the USSR into a powerful state capable of the mass production of modern arms."

Furthermore in the *Short Course of History* which is a text-book used by all educational establishments in the USSR it is clearly stated that: "In order to avoid capitalist intervention, the capitalist encirclement must be destroyed" (p. 261).

Both Lenin and Stalin clearly stated their doctrine that the inevitable clash between the communist and capitalist worlds would compel the communists to bring their military organisation to the highest pitch of perfection.[1] It was in accordance with this doctrine that Marshal Bulganin, the present Soviet Defence Minister, stated on the 23rd February, 1949: "Peace must be democratic throughout the whole world", thereby meaning that it could be achieved only by the destruction of capitalism in the non-Soviet world.

According to Soviet ideology there are two kinds of wars:

(*a*) just wars, for the defence of the Soviet Union, or for the liberation of other countries from capitalist domination as, for example, the war for the liberation of South Korea;

[1] Lenin, vol. VIII, p. 33; Stalin's *Leninism*, p. 156 (London edition, 1940. Geo. Allen and Unwin). As follows: "The existence of the Soviet Republic side by side with imperialist states for a long time is unthinkable. One or the other must triumph in the end. And before that end supervenes a series of frightful collisions between the Soviet Republic and the bourgeois states will be inevitable. That means that if the ruling class, the proletariat, wants to hold sway, it must prove its capacity to do so by military organisation also."

(*b*) unjust wars, *i.e.* any aggression by a capitalist country against the USSR.

The Soviets support wars in the first category and condemn those in the second.

Thus it will be appreciated that the question of morale is of the greatest importance, both in the ranks of the enemy (capitalist countries) and in those of the Soviet.

Subversive action and communist propaganda in the non-communist world is carried out by the "Kremlin Column", composed of fraternal Communist Parties abroad, Soviet friendship societies in various countries, trade unions with full or partial communist leadership, and other affiliated organisations. They are directed by the Cominform, established by the Foreign Department of the Central Committee of the Communist Party of the USSR in 1947.

In the communist world the whole apparatus of Soviet patriotic propaganda is brought into play, and morale is bolstered up by relentless indoctrination.

Having inherited the control of this immense war-machine, the heirs of Stalin and the present military hierarchy are now engaged in making their political preparations and initiating their strategic manœuvres with careful calculation as if they were playing a game on some vast chessboard, unhampered by public opinion or any form of parliamentary control, or even by any kind of moral or material considerations except those imposed upon them by physical or geographical conditions.

In pursuing its fixed aim, the destruction of capitalism, Soviet strategy must occasionally abandon more limited objectives and withdraw to comparative inactivity in order to accumulate fresh forces for the purpose of renewed

attack at a suitable opportunity. Stalin clearly enunciated his principles of political and strategic manœuvre in *Leninism*.[1]

The Soviet General Staff is guided in its conduct of military operations by two main principles.

The first principle is that when a conflict becomes unprofitable and there are no means of concentrating rapidly an overwhelming force on the main line of advance, or when the resistance of the enemy is too tough to be broken without a preliminary softening up, a calculated withdrawal is carried out, taking advantage of the vast areas for deployment behind the Soviet front. Similarly, should the Soviet strategic advance be blocked by an enemy counter-offensive, a diversional or flanking movement may be made.

The second principle is that when the Soviet rear is in danger, either through enemy action, or through the subversive activities of non-Russian peoples, or owing to unrest caused by economic privation, a halt is called to foreign expansion until internal order has been re-established.[2] The reason for this is that all Soviet activities are directed from the centre in Moscow; if something goes wrong on one front it is always possible that the general plan may require revision before any further steps are taken. Such a revision

[1] *Leninism*, pp. 58–71. On p. 65 he says: "The object of this strategy is to gain time, to demoralise the enemy and to accumulate forces in order to assume the offensive. The signing of the Brest-Litovsk Peace may be taken as a model of this strategy, for it enabled the Party to gain time, to take advantage of the conflicts in the camp of the imperialists, to demoralise the forces of the enemy, to train for the offensive against Kolchak and Denikin."

[2] "'To carry on war for the overthrow of the international bourgeoisie,' says Lenin, 'a war which is a hundred times more difficult, protracted and complicated than the most stubborn of ordinary wars between states, and to refuse beforehand to manœuvre, to utilise the conflict of interests (even though temporary) amongst one's enemies, to refuse to temporise and compromise with possible . . . allies . . . is not this ridiculous in the extreme?'" (Stalin, *Leninism*, p. 69.)

can only be accomplished by a temporary stopping of the machinery.

Immediately after the end of the Second World War, Soviet imperialism was ready for an advance deep into western Europe, on the main routes leading into communist-dominated northern Italy, and from thence into the south of France, both Mediterranean lands. The obvious approach was on the line Pontebba–Tarcento–Cormons–Monfalcone–Trieste. British intervention in Greece, however, prevented the fulfilment of this plan, and caused the USSR to transfer their activities temporarily in two fresh directions: first, across the Caucasus into northern Persia, and later on along the Soviet-Chinese border towards Port Arthur and Dairen, culminating in the Korean venture of 1950.

Other possibilities were not neglected—the *putsch* in Czechoslovakia, the Berlin blockade of 1948—but the Soviet advance into the Far East after 1949 was so spectacular and so pregnant with fresh problems that a more detailed examination must be made from the angle of this front in order to arrive at a true assessment of the strategic position of the Soviets at the present time.

The permanent Soviet fronts are four in number, and in geographical order of importance are as follows: (*a*) the Far East and South Asia; (*b*) south-western Asia; (*c*) western Europe; (*d*) the Arctic.

(*a*) THE FAR EAST AND SOUTH ASIA

The establishment in 1949 of communist rule in China was a stroke of extraordinary good fortune for the rulers of the Kremlin, and one to which they had scarcely contributed.

In March 1948 they had tried in vain to place the problem of China on the agenda of the Conference of Foreign Ministers in Moscow. A year later, however, the

problem had resolved itself in their favour, almost contrary to their expectations, and had brought them great advantages of which the most notable in order of importance were:

(1) The securing of the Soviet-Chinese frontier, the longest land frontier between any two countries in the world.

(2) The bringing under Soviet economic control of the adjacent Chinese provinces of Sinkiang, Manchuria, and others more remote as Soviet influence spread eastwards.

(3) The bringing of communist forces into direct contact with the European-controlled countries of south-east Asia, with the result that pressure could be brought upon the European powers at a great distance from their home bases. In this manner Korea, Indo-China, Malaya, the Philippines, Indonesia, Siam, Burma and India all came under the threat of the communist advance.

(4) The facilitating in some of these areas of Soviet armed intervention by proxy, through the Chinese communists in Pekin, without in any way involving the communist "Motherland".

(5) The provision of a convenient testing-ground for Soviet arms and equipment, all of which were paid for by the Chinese communists.

(6) Finally, as a result of the two preceding factors, the weakening of China, a country with a land-hungry people more than twice the size of the population of the USSR.[1]

[1] Traditionally the Chinese masses were regarded by the Kremlin until recently as a potential threat to the Soviet Empire. There were many minor clashes with the Chinese, beginning in the 17th century and gradually increasing as Russian, and later Soviet, pressure upon the northern and western frontiers of China increased. The mere size of the population of China in comparison with that of the USSR was a potential threat.

These developments ruled out all possibility of a major armed conflict on the Soviet eastern front, or of the cutting off of the highly vulnerable Trans-Siberian or Turk-Sib railways, while at the same time restricting the Chinese conflict with the USA to south-east Asia.

The handing over by Japan of the Kurile Islands, southern Sakhalin, Dairen and Port Arthur, gave the USSR additional protection on the Pacific sector of the Far Eastern front, between the Behring Sea and Vladivostok, while the sector along the Kamchatka coast, as far north as the Gulf of Anadir, remains protected by its great distance from the vital parts of the USSR, its exceptionally severe climate, and the difficulties of navigation by sea and air in those remote parts. All this was attained without affecting the military or industrial potential of the Soviets.

Initiative on the Asiatic fronts has definitely passed into the hands of the Moscow-Pekin Axis.[1] With but little effort on their part, and this mainly in the supply of arms, the Soviets can maintain an indefinite pressure on their western capitalist adversaries, whilst leaving themselves free to concentrate their main forces on what are to them the more vital European and southern fronts.

[1] The Moscow-Pekin Axis and the strategy of the 30th parallel are both manifestations of the same policy. The term "strategy of the 30th parallel" in reality covers political and quasi-military operations in the areas between the 15th and 45th parallels, dropping down on occasion well below the Equator. The Chinese share in these operations seems to have been limited to the following: the Korean war, the Huk rebellion in the Philippines, the troubles in Burma, war in Indo-China, disturbances in Thailand, continued pressure on the Indian government, and such minor questions as the state of tension on the Hong Kong–Chinese frontier, etc.

For the present, both China and the USSR are in need of each other. China needs Soviet military and industrial assistance. The Soviets need Chinese pressure on the interests and bases of the western Powers in the Far East and southern Asia. Possibly in the future the Soviets will need Chinese man-power.

(*b*) SOUTH-WESTERN ASIA

The southern front of the USSR from the Pamirs to the Black Sea may conveniently be divided into three sections: Afghanistan, Persia and Turkey, each with its own special conditions.

Afghanistan. Although by tradition Russia and the USSR have considered this country as the "Gateway to India", in practice it remains a formidable natural obstacle thanks to its mountainous terrain, the highly inflammable Afghan population, and not least because the approach to it through Turkestan leads across an area which, although Soviet-controlled, is potentially hostile, as the Turkish population was subjugated less than a century ago.[1]

Some of the local peoples, the Tadzhiks and the Uzbeks, overlap into Afghanistan. The consequent advantage of being able to infiltrate Soviet-indoctrinated agents into Afghan territory is to some extent offset by the reverse stream of anti-Soviet propaganda into Turkestan.

The Kremlin's most likely action in Afghanistan would be to stir up enmity and suspicion between that country and Pakistan, which lately has chosen to align itself with the western Powers through its defensive pact with Turkey. Potentially Afghanistan would be a liability rather than an asset to any Power that chose direct intervention in order to convert it into a satellite. But there are great possibilities in stirring up border troubles such as the ever-smouldering feuds on the north-western frontier with Pakistan, with the object of eliminating the latter country as a potential

[1] In the days of the Tsars, relations with the Islamic population of Turkestan were liberal. Religion was undisturbed, military conscription was not enforced until the war of 1914–17, and the tribal system was maintained. After the revolution all this was changed; the rulers of Khiva and Bukhara were deposed, religion was abolished, conscription re-introduced, and the tribesmen were denied much of their former freedom.

ally and a link in the South Asiatic chain of western defences.

In other words, Afghanistan may be used by the USSR in the same manner as they have used North Korea and Viet-Minh communists in diverting western forces from European and American bases into defensive action on the eastern and South Asiatic fronts.

Persia. The possibility of expansion to Persia is of far greater importance to the USSR. The road to Persia leads down the west coast or across the waters of the Caspian Sea, the traditional route for Russian trade and aggression ever since the invasion of Persia by Peter the Great in 1722.

The three important strategic objectives of the Soviets in this area are as follows:

(1) The protection of the main oilfields of the USSR around Baku and in the Caucasus, which at present supply more than 60% of Soviet oil production.

(2) The opening up of fresh oil-bearing grounds in northern Persia, an objective which became a bone of contention with the western Powers in 1946, and the destruction or absorption of the British oil refineries at Abadan and in Iraq.[1]

(3) Access to the Persian Gulf, the only warm ocean outlet within easy reach from Central USSR.

The Ribbentrop-Molotov agreement of 1939–40 distinctly

[1] While the lands of northern Persia undoubtedly present great possibilities for exploitation, the technical difficulties involved seem to have been too much for the Soviet technicians in the short time, three years, at their disposal. This, combined with the presentation of a virtual ultimatum by the Truman administration, obliged the Soviets to withdraw in 1946.

The great strides made by the Tudeh (Communist) Party at about that period, and the machinations of Premier Mossadeq, were minor offshoots from the general strategy of the 30th parallel.

stipulated that this area and these objectives should come within the sphere of Soviet imperialist aims.[1]

The unhappy state of the internal affairs of Persia is directly to be attributed to the subversive activities of Soviet agents.

For these and other similar reasons, many of the highland tribes of the northern Caucasus, standing in the way of Soviet expansion to the south, were deported or decimated, culminating in the brutal genocide perpetrated on these peoples by the Kremlin during the last war, in February–March 1944.

Turkey. This sector is in itself of lesser importance to the USSR as the area of eastern Turkey, bordering on the Caucasus, represents a great natural obstacle to land operations, while the traditional aspirations to the command of the Dardanelles have lost much of their attraction in the conditions of modern global warfare, under which the Mediterranean ceases to be an open sea.

(*c*) WESTERN EUROPE

It is on the western front, from the Black Sea to Petsamo, that the Soviets are in closer contact with their western adversaries than at any other point on their lengthy frontier, notwithstanding the broad belt of satellite states which

[1] One of the main hindrances to the Soviet control of the Persian ports on the Persian Gulf is the bad state of communications from north to south in Persia; the one single-track railway from the Gulf to the Caspian is indeed a remarkable feat of engineering, but it can contribute little to any expansion of traffic except in the most skilled hands, while the road system, which had with difficulty been brought up to a reasonable level of usefulness during the period of lease-lend to the USSR, is now rapidly falling into decay under local administration.

The prospect of bringing oil from the south of Persia to the north was almost nil. During the war, supplies for the north, including Teheran, were obtained from Iraq by pipe-line from the oilfields as far as Kermanshah, but this source was scarcely likely to be available to the USSR.

separates the two groups. The situation in these is briefly stated below, with the addition of certain other countries that have received an undue share of Soviet attention.[1]

Rumania. On the 31st August, 1944, Soviet troops entered Bucharest, thereby creating "far-reaching consequences in the course of the war in the Balkans and in south-eastern Europe".[2] Rumania went out of the war and found itself ruled by a "democratic government" consisting of quislings and Soviet nominees.

Bulgaria. On the 5th September, 1944, the USSR declared war on Bulgaria, and another "democratic government", headed by G. Dimitrov, was set up in Sofia.

Greece. With this last move the Soviets found themselves up as far as the Greek frontier. The next step was to have been an occupation of Greece, and the certainty with which this was regarded is shown by the fact that the Voroshilov Military Academy in Moscow carried out a number of "war exercises" simulating the invasion of Greece from Bulgaria. Possibly such "games", involving the landing of paratroops in the Peloponnese and Crete, are still being carried out in Moscow, but at that moment (the autumn of 1944) there was an unexpected development.

This development was the movement of Greek troops, backed up by a small British force. Stalin, realising that he

[1] All the western satellite states—Albania, Austria, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland and Rumania, with a total population of about 100 millions—are now under effective Soviet military and political control, either because the Soviets' lines of communication pass through them (Poland), or because they are surrounded by other satellites (Czechoslovakia), or because they are considered as former enemies (Eastern Germany, Austria and Bulgaria), or for all or some of these reasons combined (Rumania, Hungary and Albania). Yugoslavia escaped this fate because she belonged to none of these categories.

[2] The *Complete Soviet Encyclopædia*, p. 721.

had been outmanœuvred, lost his nerve and stopped any further advance in the direction of Yugoslavia and Italy. Outbursts of uncontrolled annoyance were heard in Moscow at Party meetings on the receipt of this news: "Those damned British, who asked them to move in?"

In haste Greek communist refugees were assembled in Moscow, and plans were drawn up by the Soviet General Staff for their deployment along the Alexandropolis-Salonika line. A certain Markos was put in command, and a new minor war was commenced. To the world at large this seemed to be nothing but a domestic affair of the Greeks, but in actual fact it had significant repercussions on further developments in western Europe.

The failure of Markos prevented the Soviet occupation of Yugoslavia, even though Tito was at that time friendly to the Kremlin. It stopped any further Soviet penetration into northern Italy and southern France and lastly, it settled the fate of Austria.

Austria. At the Teheran Conference it was agreed that Austria was to be freed and not subjugated. In actual fact, however, this country was subsequently treated in the same manner as hostile Germany.

As time went on it became clear that Austria was destined by the Soviets to become their base of operations for a future advance into northern Italy, outflanking as it does Switzerland and southern Germany and separating the Balkans from the rest of Europe.

The treatment of Austria as an occupied enemy country is of great advantage to the Soviets. Not only does it serve as a base, as mentioned above, for a future advance into south-western Europe, but it also serves as a justification for the continued occupation of Hungary and Rumania, both of which lie on the Soviet lines of communication with the USSR proper.

It is scarcely to be wondered at that the attempts of the western Powers to reach an agreement with the USSR on the future of Austria have been frustrated. It is also why the Soviets so persistently tie the Austrian problem up with the German one, so as to make it still more difficult to reach an agreement. The defection of Yugoslavia to the west gives yet another reason for Soviet obduracy.

Czechoslovakia. This small country plays an important part in linking up Soviet Austria with East Germany and Poland. Czechoslovakia possesses the important defensive quadrangle of the Sudeten mountains besides the useful war and industrial potential of the Skoda works and the uranium mines.

East Germany. Here the importance of the role is in separating Poland, the least dependable of all the satellites, from physical contact with the western world.

Apart from its industrial potential, the domination of East Germany enabled the Soviets to occupy the southern shores of the Baltic almost up to its exit via the Belt and the Sound into the Kattegat and the North Sea. In this manner it should be possible to seal off the Baltic—in so far as Swedish neutrality can be relied upon—on the occasion of any future operations against the west, leaving its waters free to be used as a base for Soviet submarines attacking the main shipping lanes.

At the present time there is great air and naval activity on the island of Rügen in the western Baltic, now occupied by the Soviets, and the port of Stettin (Szczecin), now in Poland.

As the direction of any future advance in this region will be towards Kiel, Copenhagen and Malmö as the first air and naval objectives, and towards Hamburg and Bremen for the armies, attacking over the easy plains of northern

Germany, the essential political prelude to such an objective is the unification of Germany on Soviet terms, *i.e.* without any free elections.

Finland. This small country, nominally independent, lies powerless within the Soviet system of air and naval bases, especially that of Hangö, which dominates the entrances to the Gulfs of Finland and Bothnia, making the north-east Baltic also practically a Soviet sea.

(*d*) THE ARCTIC

A novel and almost unprecedented conception has been the opening by the Soviet war-planners of a fourth front, along the almost unknown northern coast of the USSR, stretching along the shores of the Arctic Ocean from Petsamo to the Behring Straits.

This front is split into two uneven sectors: the European, which stretches from Petsamo to Vaigatch Island, and the Asiatic, which goes from Vaigatch to the Behring Straits.

The *European sector* is the better known of the two, especially to the British mercantile marine, which faced the perils of the northern seas in supplying war materials to the USSR during the last war. In the First World War it was even better known, when the British North Russian Expeditionary Force, some 10,000 strong, was in occupation of this dreary and inhospitable land for over a year. Since that time much work has been done there by the USSR, not for the benefit of the scanty population but for the glory and might of the Soviet state, Soviet imperialism.

The two main railway lines to the north, one terminating at the ice-free port of Murmansk and the other at Archangel, have been supplemented by a third line, over 1200 kilometres in length, from Kotlas to Vorkuta, which was completed in 1941 and was subsequently extended a further 250 kilometres to Halmer-Ju, a new base for the Soviet

navy in the Arctic Ocean. The new railway was built entirely by slave labour, while the Vorkuta coalfield, which was opened up in 1940 and was reputed to have employed 30,000 slaves in 1946, now employs about 250,000.

Novaya Zemlya, the frozen and barren island lying north of Vaigatch, has now become a place of feverish activity on the part of the Soviet army, air force and navy. From here no slave ever returns and it is fully screened off from the eyes of inquisitive visitors.

Another advanced base is believed to have been set up within the area of a coal-mine concession granted to the Soviets before the last war on the Norwegian-owned island of Spitzbergen. It is suspected that there is also a base on Franz Josef (Fridtjof Nansen) Land. These two bases bring the Soviet advanced positions to within the shortest distance by air from the north coast of Canada.

The *Asiatic sector* is too little known to be described in detail. However, a railway line has recently been built from Vorkuta, in the European sector, to the Ob River on the other side of the Ural Mountains. There are several air force establishments between the terminus and the Gulf of Ob. On the Anadyrsk Peninsula, immediately opposite Alaska, there are also several air force establishments.

Soviet pioneering flights were made in 1938 by Chkalov who landed at Portland in the USA, by Gromov who landed at San Francisco, and by Papanin and Shmit who landed at the North Pole.

It seems hardly necessary to emphasise the importance of this Arctic front, which is the only one where the Soviets stand broadside on to their greatest capitalist enemy, fully exposed to attacks from the United States air force.

A number of meteorological stations have been established all along the Siberian shores and great efforts have been made since 1930 to open up a direct sea communication

between North European waters and the Behring Straits. After many years of experience and scientific research the passage was found to be practical during two summer months only. A record three-week passage was made by the German raider *Komet*, which passed from northern Europe to the Behring Straits in 1940 with the permission and assistance of the Soviet government.

Coal mines were opened at various places, *e.g.* Vorkuta (at Pechora basin), Norilsk (in Yenissey area) and at Tiksi to provide bunker coal. Twenty to thirty ships were used annually to serve this route, but very little information has been available about it since the end of the war.

CHAPTER II

BACKGROUND TO THE SOVIET ARMY

Soviet military science comprises the following:

(1) The organisation and administration of the armed forces of the Soviet state—including the satellite states—for the main task of carrying out "world revolution".

(2) The selection of the principal and secondary objectives and the determination of the necessary priorities for the accomplishment of the main task.

(3) The study and the preparation of approaches to these objectives.

(4) The timing of military movements towards selected objectives.

(5) The composition of forces for particular tasks.

(6) The co-ordination of political, economic and military factors, and their integration with geographical factors.

The supreme direction of the Soviet armed forces is vested in the Presidium of the Central Committee of the Communist Party of the USSR. The executive power is in the hands of the General Staff of the USSR.

The selection of, and the movement towards, main objectives is a matter for strategic consideration by these supreme directing organs, while subsidiary tasks of a tactical nature are dealt with at various levels by Soviet Army Commands. In all cases the guiding principle of the Soviet forces is the attainment of maximum results with minimum loss of time and material resources. The basic forms of action are offensive, defensive and counter-offensive. This order of action is well illustrated by Voroshilov's expression in his book on *Stalin and the Red Army*: "The Red Army will always begin and finish the war on enemy territory." All these actions are carried out with the close co-operation of all services and their technical equipment, *e.g.* mass formations of armour, aircraft, artillery.

The selection and briefing of commanding officers is another important function of the General Staff. The five duties of a tactical commander are set out below.

The first duty is the study of a given task. The commander is unsuited for the task if he has not devoted sufficient time to the examination of the proposed objective and the means of reaching it. Officers on all levels of command are instructed to refrain from giving orders until and unless they are thoroughly acquainted with the impending operation.

The second duty of commanders of all ranks is the study of the enemy. To this much time and attention is given in the curricula of Soviet military schools and academies. The tactical commander is required to read as much as possible on the history, psychology, economics, and other national

characteristics of the territory and population of the proposed theatre of operations. In any case he must take note of the statements of prisoners of war and of civilians in addition to the normal intelligence reports supplied from different levels of command. The German High Command ignored this rule in their advance through the Ukraine and the Crimea and later paid heavily for their ignorance.

The third duty of a commander is to find the method by which the enemy system of command is linked, so as to be able to strike at the joints, which are usually the weakest points in the defence. In this work he must not be deterred by initial failures. An easy "head on" advance may not always be the best; a diversion is often to be preferred. Psychological considerations are important in these questions; an enemy is inclined to expect that owing to the difficulties of a diversional move a "head on" attack is more likely, for which reason his frontal defences will be the stronger. Soviet academic courses frequently call the diversion "the Lenin manœuvre"; they derive it from a passage in his early writings: "One must profit from the unwieldiness and carelessness of the enemy and attack him when and where he least expects it".

The fourth duty is the timing of the movement. This however depends almost automatically upon the general plan of operations.

The fifth duty is the choice of the means by which the objective is to be attained. A deciding factor in this respect is the dictum of Stalin: "The ends govern the means", a reversal of the old saying. The following incident illustrates this. There was a moment towards the end of the Second World War (February–March 1945) when all the limited objectives in Germany had been reached, and there was a temporary lull in operations pending the making of fresh

dispositions and the deploying of forces again on planned positions. Suddenly, in the midst of all these preparations, a new and purely political objective emerged: the occupation of Berlin before the western Allies could reach it. The end was more important than the means, and all available means were employed, irrespective of cost. One division after another was thrown into battle, only to be destroyed in turn for lack of adequate support and preparations. The whole operation involved enormous losses, but the main objective was reached and Berlin was entered by the Red Army.

Tactical retreat. Another ruling of Stalin's strategy is that the loss of a large portion of Soviet territory does not, in itself, constitute a defeat. Napoleon lost his Russian campaign, not because he failed to occupy a considerable part of Russia, but because Kutuzov, the Russian commander, had behind him a still greater area in which to manœuvre. In the same way Hitler failed, not because he seized a smaller area in the East than he had in the West, but because Stalin had even greater areas and populations on which to fall back.

To the Belgians the loss of, say, 10,000 square miles might well be fatal, but to the USSR it would be like a pin-prick on the hide of an elephant. The main protection of the USSR is its expanse together with the ignorance of its enemies. Because of this the problem of withdrawal is most carefully studied by the Soviet General Staff. It may be summarised in the following general rules:

(1) If the engagement forced by the enemy is definitely unfavourable and the defeat of the Soviet forces is threatened, a withdrawal into the depth of the USSR must be carried out under cover of a rearguard action.

(2) The enemy will then be compelled to dissipate his

forces on secondary and unimportant objectives, thereby dislocating his system of command, supplies and communication.

(3) The main forces of the enemy should, as far as possible, be led into an area of bad roads and active partisan operations.

(4) The time thus gained is employed in the re-assembling of the Soviet forces into a striking unit. The Soviet Command should then start a counter-offensive on a suitable terrain at a suitable moment, thereby catching the enemy "on the wrong foot".

The occupation of the USSR would require an enormous body of troops, larger than any force now existing in a single European state, or even in a combination of several. Such an occupation would be ineffective, as the force would have to be split up into numerous garrisons of "fortified islands" surrounded by a hostile population and partisan resistance groups. It would be difficult, if not impossible, to maintain the supply services, while communications in general would be interrupted, thereby causing a breakdown in the morale and discipline of the occupying forces.[1] To a large extent these factors contributed to the German defeats in the USSR in the winters of 1941–2, 1942–3 and 1943–4.

The enforced inactivity resulting from such tactics produces most unhealthy psychological conditions which affect

[1] This theory of occupation of the USSR by an enemy force represents Soviet doctrine expounded since the last war and based on its lessons. It should not be taken as infallible for all time and for all the conditions of a future war. It may yet be refuted by internal conditions inside the USSR and by the character and strength of the potential enemy. The problem should really be treated on the merits of individual cases and studied accordingly. Even in the last war the Germans might have solved the problem of occupation had they tried to make friends with the local population instead of making enemies of them.

equally both the occupying and the resisting forces. The rank and file, who are kept at the rear, are unable to understand or grasp the grand strategy of the High Command and tend to become impatient, insubordinate and defeatist. Counter-measures against this become urgently necessary and fall within the province of political propaganda.

Without disclosing the real meaning of the operations, the organs of propaganda are required to instil in the troops a fresh sense of responsibility, discipline and general morale. A number of slogans were invented for this purpose. To the western mind they may appear somewhat naïve, but with the simple-minded Soviet soldier they were most effective. Here are some examples:

(1) An organised retreat is the forerunner of a victorious offensive.

(2) While stationed at the rear, you are preparing the counter-offensive.

(3) History teaches us that the most successful offensive is that which starts on your own ground which you have recently lost.

(4) The farther you are from the front and the longer you remain in the rear, the nearer you are to victory.

(5) If you wish to destroy the enemy let him penetrate deep into your midst.

The Nazis frequently laughed at these slogans, but they achieved their aim.

In pursuance of their policy, the General Staff of the USSR, in the autumn of 1941, kept large reserves in the rear of the retreating armies in spite of appalling conditions at the front. Many of the impatient officers were court-martialled for criticism of what they supposed to be criminal negligence on the part of the Soviet Supreme Command.

As the enemy approached Moscow the defence around

the capital began to assume the shape of a highly compressed spring, which accumulated within itself a considerable power potential. Meanwhile, the rearguard action and the exceptionally bad weather were wearing out the enemy. Finally the "spring" was released and the enemy attack was smashed. This was a classical example of the disintegration of an adversary, of an advance extended beyond what was prudent, and of the accumulation of defensive forces for a very successful counter-offensive.

Another example was the battle for Stalingrad. In spite of the extremely difficult position in the town itself, the reserves were deliberately kept back until the moment arrived for a decisive counter-offensive. The desperate defence of Stalingrad was looked upon by the Germans as an example of extreme fanaticism, but in fact it attracted the maximum number of Nazi forces deep into Soviet territory. In the end the accumulated Soviet reserves were finally released in the middle of November 1942 for a successful counter-attack on an exhausted enemy who had lost all ability to manœuvre under his own power.

Defence for the sake of defence is sheer nonsense. Defence must be active, which means that "after a successful offensive by the enemy, unaccompanied by any decisive results, one should build up one's own forces and pass to a counter-offensive, so as to inflict a decisive blow on the enemy" (Stalin).

Tactical offensive. In actual fact all the rules of counter-offensive, both in theory and in practice, were drawn up at the end of the 1930's, not by Stalin but by the generals, officers and professors of the Soviet Military Academy, of which Stalin was never a pupil. Stalin himself had but an indifferent knowledge of tactics and strategy in the purely military field and accepted the rules as drawn up for him by his experts.

The classical movement in the offensive is the envelopment of the enemy flanks so as to encircle them and destroy them as a fighting force.

On the 19th November, 1942, Soviet forces south and north-west of Stalingrad broke through the flanks of the army of Field-Marshal Von Paulus and rapidly enveloped them, closing the circle in the neighbourhood of Kalach. About 300,000 Nazi troops were "in the bag" and their fate was sealed. Similar tactics were applied later at Rossosh, Voronesh, Novgorod, Riga, Bobruysk, Brest, Kiev, Nikolayev, Odessa, Kishinev, Kamenets Podolsk, Königsberg, Budapest, etc.

The envelopment and subsequent annihilation of enemy groups became the standard tactics of the Soviet offensive. This was done by breaking through the enemy front with several well-timed alternating flanking attacks, *i.e.* by an attack in one direction followed by a second attack in a different one. On reaching the objective in the enemy's immediate rear, the commander of an attacking unit must rapidly deploy his force in such a manner that not only are the frontal positions of the enemy rolled up, but his tactical reserves are also surrounded.

Without such precautions, the attacking unit may itself be enveloped and fall into a trap. The entire planning of a break-through must start with an examination of the possibility of the enemy counter-attacking by cutting the thrust off at its base. The following example illustrates the method.

On the 12th January, 1944, after heavy artillery preparation, the Red Army advanced in the region of Oranienbaum, near Leningrad. Although it was impossible to conceal the concentration of troops, the Soviet Command selected this region, first because the Nazis did not believe that the Soviets could be guilty of such folly, and secondly because

at this spot the Germans were not in a position to launch a flanking counter-stroke against the Soviet troops.

A simultaneous break-through in several directions is an operation carried through by a number of formations—sometimes by more than one army group—separated from each other by hundreds of miles. If one of them fails to keep up to the time-table of operations, the others may become dangerously involved and the whole plan may fail. No obstacle, except a direct order from above, is allowed to serve as an excuse for failure to reach the objective at the time fixed.

In the autumn of 1943 the River Dniepr had to be forced near Kiev. There was a complete lack of adequate equipment for this purpose, but nevertheless the Supreme Command ordered the army to cross the river "as best it could". The crossing was made with full equipment. Some swam this wide navigable river, some ferried across by clinging on to floating materials, wooden logs, empty petrol cans, food and ammunition boxes, etc. Many were drowned, but the majority got across and were rushed straight into action, thus preventing the failure of a major operation. This was one of the heroic epics of the Second World War.

Strict adherence to a plan, firm and persistent execution of the orders received, and the skilful overcoming of all obstacles—these are the secrets of success. The offensive begins by planning, therefore disregard of the plan leads to the failure of the offensive.

THE SOVIET FORCES

It may be estimated that the USSR, together with its satellites, could within five years of the outbreak of war put into uniform between 35 and 40 million men and women. This number constitutes slightly more than 10% of the total population of the USSR and its satellites. At the end

of the last war (in 1945) the USSR had about 10 million men and women in uniform, of which about 5 million were in operational formations.

At present there are 5 million troops under the command of the Ministries of Defence and Marine of the USSR. This figure excludes those in the MVD (Ministry of the Interior), MGB (Ministry of State Security), the Militia, the Railway Security Police, and others. It represents the total number in the uniforms of the Soviet Army and Navy.

The manning of this enormous force is effected by the annual conscription of persons of both sexes between the ages of 17 and 30. The terms of service are up to four years in the navy and air force, two years in the army. In practice these terms are frequently extended, and men are kept in the forces three, four and even five years. For officers the terms of service is indefinite. In theory they can only be demobilised through ill-health or political unreliability.

A temporary postponement of call-up is granted to students in special educational establishments and to civil servants in the central administrative offices. The total of these exemptions does not exceed in all some 0.7% of the total call-up.

The peace-time conscription of women does not exceed 7–8% of the total number called up of both sexes. In war-time the percentage of women in certain establishments (hospitals, etc.) is increased to 80–90%.

Large numbers of men are demobilised every year into the first-class Reserve, but still greater numbers are formed into semi-military associations, affiliated to the army, navy and air force. These associations, which were formed in 1948 to replace the former Osoviakim, are now spread all over the USSR. They have their own aviation, tanks,

artillery, and other weapons for training. In all there are some 15 million men and women trained and drilled in infantry, artillery, tanks, machine-guns, aviation, mining, engineering, chemical warfare, etc.

Such associations during the last war supplied half of the airmen and large numbers of personnel for auxiliary services, reconnaissance, dog trainers, resistance leaders and administrative staff. They form an excellent source of man-power. All training is done out of working hours under the supervision of experienced commanders and instructors. All expenses connected with their running are paid by the Soviet government. Their cadres constitute a vital part of the whole Soviet war potential.

Artillery. Every Soviet Army offensive begins with a powerful artillery preparation, and this arm is now the main striking force of the Soviet Army. Special attention is paid to it as regards its numbers, the quality of the material, and the qualifications of the serving personnel of all ranks. The Dzerzhinski Artillery Academy has been transferred from Leningrad to Moscow, and a dense network of artillery schools now covers the whole of the USSR. Research and development institutions, firing ranges, great factories, etc., have sprung up with remarkable speed. Even the higher civilian educational establishments have opened sections for the training of artillery engineers. The amount of money spent on the development of this arm is in fact enormous.

It was owing to this background that during the first year of the Soviet-German war, in spite of the loss of important industrial areas, the USSR managed to supply its army with large quantities of excellent artillery. During the last three years of the war—1941 to 1944—the production included 120,000 pieces of artillery, 3 million rifles, 2 million automatic small arms, 450,000 machine-guns of all

types, and 100,000 mortars. In the final defeat of the Germans on the eastern front, the Soviet artillery was able to concentrate 610 guns and mortars for every kilometre of front.

Apart from the initial break-through, the importance of the role of artillery, especially of long-range artillery, is recognised as a screen to cover the advance of troops and as a means of disorganising the retreat of the enemy and preventing his reserves from coming into action. When the envelopment of the enemy is complete, it is the artillery that has the task of ensuring their destruction. For the breaking of the blockade of Leningrad 5,000 guns and mortars were assembled on a narrow front. The break-through on the Vistula needed 9,500 and that in East Prussia 7,100.

To enable such numbers of guns to be massed at short notice, the Soviet Supreme Command formed the AGK—Artillery Supreme Command—a special mobile force held in reserve for use in important attacks only. The period after the close of the last war was marked by a great increase in these reserves and by their conversion to mechanical traction in order to reduce their dependence on rail transport.

Special attention has been paid to ballistics and long-range firing. Rocket (guided missile) units have been formed,[1] and a Scientific Research Academy for artillery science was founded in 1946 to concentrate on the study of these problems.

A new type of self-propelled 15.2 cm. gun is now going into mass production. It is known as the SU (*samokhodyne ustanoviki*) and can travel at a speed of 30 km. per hour.

[1] These rockets are quite different from the short-range type of about 300 metres (*raketnye stanki*) which were known in the Russian armies of the 19th century and which acquired fame in the last war under the nickname of *Katiusha*.

Armoured forces. Modern warfare may be said to be a contest of machines. The tank, as a modern fighting unit, consists of a propelling mechanism, together with a crew of men and their weapons, the whole encased in armour. On account of its speed and mobility the tank is an ideal striking and offensive weapon, although it may also be used in defence.

But in modern land warfare no one arm can be used to the exclusion of all others. A land battle is fought with a combination of all arms. According to Soviet ideas, armour is used in mass formations to follow up the effects of artillery fire, to break through the enemy defences, paralyse his communications, and envelop and destroy his forces.

After an initial success in this direction, tanks are used to penetrate deeply into the enemy's rear in order to prevent him from building up fresh defences and bringing up his reserves. In the battle of Stalingrad, tanks broke through the German front in two places simultaneously and closed the ring near Kalach. At Korsun-Szevchenko similar tactics netted ten Nazi divisions. In Byelorussia two wedge formations of tanks broke through to the west and closed in behind Minsk. At the close of the war, in the storming of Berlin, armoured formations from Marshal Zhukov's troops on the first front had linked up with those from Marshal Koniev's troops on the second front in the Potsdam area long before the fighting to the east of Berlin had ended. Some 6,300 tanks took part in these latter operations.

The production of tanks and self-propelled guns of all types in the USSR during the last three years of war was 33,000 per annum.

A new Soviet tank, the T-54, equipped with a 10 cm. gun, is now going into production and will eventually replace the T-34. The new model of the Joseph Stalin heavy armoured vehicle is expected to carry 30% more

fuel, while at the same time cutting down consumption. The range will accordingly be increased by about a quarter.

It should be observed that, in spite of all the purges and the ill-treatment of personnel, the tank corps in the USSR has managed to build up cadres of very capable engineers. It is perhaps for this reason that both the tank corps and the air force have developed strong anti-Stalin (and now, presumably, anti-Malenkov) tendencies, which occasionally come out into the open.

Paratroops (or "flying infantry" as they are known in the USSR) were favoured formations long before the last war. They were little used during the war because so many of the transport planes were destroyed by the enemy at the beginning of the war, apart from the general shortage of long-range heavy aircraft. Until recently the paratroop units were under the direct control of the Chief Department of Partisan Movement, and consisted mainly of fanatical elements of the cut-throat type. Their object was to land from parachutes or gliders in the rear of the enemy lines, there to link up with partisan formations and disorganise the enemy rear by arson and sabotage.

At present they are being reinforced by fresh elements having some knowledge of foreign languages and countries. At the same time the discipline is being tightened up. They are formed into special "ADD" divisions, each consisting of 8,000–10,000 combat personnel with ancillary services. No doubt they will be used in great numbers in the next war.

Mechanised troops. These units are moved by mechanical transport, a branch in which the Soviet army is notoriously deficient, certainly by western standards. There is, however, sufficient to allow for parades on the Red Square before the Kremlin on various military and other anniversary days.

The shortage of mechanical transport vehicles and their habitual state of disrepair is largely due to the climate, with its wide fluctuations of temperature, which causes most of the roads to become bogged with mud in autumn, and freezes the radiators and oil pumps in winter. Added to this there is the shortage of rubber tyres, which cannot be entirely covered by stock-piling. The wastage of vehicles is immense.

Another adverse factor is the lack of mechanical aptitude in the Soviet troops, over 60% of whom still come from farm labouring stock, of all classes the least mechanically minded.

For the former set of problems remedies are being increasingly applied: better roads, special climatic equipment, etc. With the human problem, however, progress is slow and it will take a long time before the material fully responds to training. This situation is one which generally affects all branches of the army using mechanical equipment; the result is waste and delay. On the other hand the "political morale" of the mechanised troops is of the highest quality. The ambition of every Soviet driver is to be able to run his vehicle over the splendid German autobahns.

CHAPTER III

BACKGROUND TO THE SOVIET AIR FORCE

THE employment of aircraft in modern warfare is so widespread that there is practically no form of land or sea operation that can be carried out without the assistance of aviation.

Offensive and defensive operations, short and long distance bombardment, communications and reconnaissance, meteorological observations—all are affected by this new instrument of war.

An air force parallels many of the activities of the army and even the navy, as below:

Infantry (paratroops)	Movement by troop carriers
Artillery and armour	Attack by bombers
Liaison	Communication aircraft
Anti-aircraft artillery	Combat by fighter aircraft.

The relationship of an air force to the army and the navy varies. In some countries the air arm is completely independent of both land and sea. In the USSR, however, the development of the Soviet air force has been definitely linked to that of the Soviet army, to which it is subordinated.

Our knowledge of the technical achievements of the Soviet air force has been much hampered by the cutting off in 1946 of the normal exchange of scientific, educational and technical information. Owing to this the average reader knows little or nothing about Soviet aviation.

The USSR is to-day one of the greatest aviation centres in the world and is competing not unsuccessfully with both the USA and Great Britain not only in output but also in quality. In organisation, higher aviation education, and theoretical aerodynamics, the USSR possibly leads the world. The MiG-15 jet fighter is an example of what is being done.

However, in considering the Soviet air force, it is necessary first of all to draw attention to its internal organisation and to its political make-up, both of which

differ radically from what is usual in the west. The main peculiarity is that from the Minister and the Commander-in-Chief down to the ordinary workers and soldiers, from the scientific establishment to the ordinary hangar, from the air factory to the workshop, everything comes under a small group of the Party oligarchy, the Presidium of the Central Committee of the Communist Party of the Soviet Union.

Throughout the whole of the Soviet Union there is no private air service nor a single privately owned aircraft. Not even a shell for an aircraft can be produced anywhere in the vast territory of the USSR without an ukase from the oligarchy, and the same applies to science and education.

It is the Presidium alone which decides on the structure, proportion, quantity, quality, aim, finance, strategy, tactics, organisation and education of all sections of the Soviet air force. Thus the main difference between Soviet aviation and that of the rest of the world lies in its extreme centralisation.

In the Presidium itself military aviation is supervised by Marshal Bulganin, while the aviation industry and its scientific development come under Premier Malenkov himself. These two men control aviation while at the same time they are Party leaders and Ministers of State. During the life of Stalin both men were his deputies; consequently his power over aviation was unlimited.

The Soviet air force is divided into the following six groups:

(1) Army Air Force, known as the VVS (*Voenno-Vozdushnye Sily*). It comes under the Defence Ministry and the Commander-in-Chief of the VVS who is also Deputy Defence Minister.

(2) Naval Air Force, known as the VVS-VMF (*Voenno-Vozdushnye Sily-Voenno-Morskogo Flota*). It comes under the Commander-in-Chief VVS as above.

(3) Strategic Air Force, known as the ADD (*Aviatsia Dalnego Deistvia*). This now comes directly under the Chief of the General Staff of the USSR and in war-time under the Supreme Commander-in-Chief. The Commander of the ADD holds the rank of Deputy of the Supreme Commander-in-Chief, and is not subordinate to the Commander-in-Chief of the VVS.

(4) Semi-Military Aviation of the Society for Assisting the Air Fleet (for training and reserve). This comes under a certain department of the Defence Ministry, and its Chief is a representative of that Ministry.

(5) Aviation for Special (Security) Purposes, known as the AON (*Aviatsia Osobogo Naznacheniya*). This comes under the Ministry of the Interior, the MVD, and has its own generals, officers and personnel, a distinctive uniform, its own airfields, repair shops, etc. Its task is important, secret and responsible. All Soviet leaders are carried by it, as well as diplomats, spies, and important documents. When flying abroad the staff wear usual air force uniforms or even plain clothes.

(6) Civil Aviation, known as the GVF (*Grazhdanski Vozdushny Flota*). This comes under the Main Department of the Civil Air Fleet of the Council of Ministers, and is commanded by the Chief of the Civil Air Fleet. In war it automatically becomes the strategic reserve of the ADD.

The Commander-in-Chief of the Army Air Force, or VVS, operates through the GUVVS (*Glavnoe Upravlenie Voenno-Vozdushnych Sil*) or Army Air Force H.Q. Officially this is part of the Defence Ministry, but in fact it is a vast organisation which is possibly larger than any

western air ministry. The entire staff, with the exception of a few secretaries and typists, consists of regular officers, mostly graduates of the Military Academies.

The more important departments of the GUVVS are listed below:

1. Office of the C.-in-C. and his Deputies
2. Political Department
3. General Staff
4. Intelligence
5. Strategy and Tactics
6. Chief Engineer
7. Technical Maintenance
8. Supplies
9. Repairs
10. Aircraft
11. Engines
12. Armaments
13. Photography and Cartography
14. Electric and Radio
15. Airfields
16. Training and Education
18. Scientific Research
19. Experimental Aircraft
20. Instruments
21. State Security

etc., etc.

In the Soviet Army Air Force, the VVS, there are two parallel series of ranks on the executive and on the engineering sides. The executive ranks go from Chief Marshal, Marshal, Colonel-General down to private. The engineering side is headed by an Engineering Colonel-General of the EAS (Aviation Engineering Service) with corresponding technical ranks all the way down.

It is far more difficult to obtain an engineering rank than an executive one, as the prefix "engineer" is only given to those who have received the highest technical air education, and is usually reserved for those who have passed through the Military Engineering Academy. Exceptions are occasionally made for distinguished inventors, and during the last war for some technicians; they are no longer made for the latter.

In all the colleges and experimental stations of the VVS, the technical side outranks the non-technical. For example an Engineer-Major may even hold a post which would normally be filled by a non-technical Major-General. This

possibly explains why the Engineering side is headed by an Engineer Colonel-General, while the non-technical side is headed by a Chief Marshal.

Up to 1946 there had been only two Chief Marshals of Aviation:

(1) A. A. Novikov, Commander of the VVS, who was also Deputy Minister of War, a member of the Soviet Parliament, a member of the Central Committee of the Communist Party, holder of all Soviet and many allied orders and decorations, one of the most distinguished commanders of the last war, and a friend of the western democracies; was arrested in 1946 and condemned to slave-labour;

(2) Golovanov, Commander of the ADD, who still holds the rank, and from 1946 to 1953 was the only Chief Marshal of Aviation in the USSR.

Up to 1946 there had been only two Colonel-Generals of the EAS: Repin and Markov. The first was Novikov's deputy and was arrested with him, the second took over his post and still holds the rank. Both Novikov and Repin were released on general amnesty in 1953.

Promotion to the ranks of the executive command, except that of Chief Marshal, is given on merit and length of service. Many Generals of the GUVVS completed their studies at the Voroshilov Higher Military Academy, which is their General Staff College.

In building up their air force the Soviets have made use of the best scientific brains in the USSR and have not hesitated to make use of those from abroad when available.

The founder of Soviet aviation was Professor N. E. Zhukovski, whose name is known to students of aerodynamics all over the world. His study of the problem of flight began as far back as the 1890's, when he began to

work on what was to be the Kutta-Zhukovski formula for lift. In 1909 he was the founder of an aviation society which built the first wind tunnel in Russia in 1910, with a rectangular passage measuring 1.5 by 0.3 metres. After the revolution, with the support of Lenin, the society founded the Central Aero-Hydrodynamic Institute, the CAGI, which has the world's largest wind tunnel, measuring 24 by 19 metres in cross-section.

Zhukovski also started the Institute for Engineers of the Soviet Air Force, which has now become the Zhukovski Air Engineering Academy, the main training-centre in the USSR. Unfortunately the directors invariably fell into disfavour with the political authorities. The first principal, Khorkov, was arrested in 1933; Todorski in 1937, the time of the Tukhachevski purge; Pomerantsev dismissed in 1940; Lt.-General Sokolov-Sokolenok was dismissed in 1947. He was followed by a somewhat colourless Maj.-General Volkow. The present occupier of the post is unknown.

Nevertheless the Zhukovski Academy, the VVIAZ, which since 1940 trains air engineering officers exclusively, is the most important training centre for the Soviet air force. The Chief, who is appointed by the Defence Minister and the Central Committee of the Communist Party, has four deputies: a political commissar, who is usually a General; a teaching and scientific deputy usually a General of the EAS; a military deputy, usually an ordinary General or Colonel; an administrative deputy, usually an officer of high rank with outstanding administrative qualifications. Some details as to the work of the first two departments are given below.

The Political Department, which consists of a large number of political officers, is split up into ten sections, as listed. Its structure is typical of that of the Political Department in most military academies.

1. Propaganda and agitation
2. Culture and enlightenment
3. Party organisation
4. Comsomol organisation (youth movements)
5. Trade union organisation for civilian staff
6. Families of service men
7. Clubs and libraries
8. Press (the Academy has its own Journal)
9. Registry
10. Garrison Party control commission

The control which these bodies exercise over the Academy is pretty well absolute; it is not possible to publish, write, debate, speak, or show a film, on any subject whatsoever without their consent. The Registry, in addition, keeps the secret and semi-secret documents of the Central Committee and the higher political authorities of the Soviet Army in its safes, and has done so ever since the murder of Kirov, who was a member of the Politburo.

A future aviation engineer must study the social and economic sciences, by which are meant the problems of Marxism, Leninism and Stalinism, the history of the Communist Party, political economy, and dialectical materialism. Study of these subjects is split up into four courses, the text-books being those of Marx, Engels, Lenin, Stalin, and the *History of the Communist Party*. Success in these studies is essential if the student is to get through the Academy.

The Teaching and Scientific Department operates through the Scientific Council, which is made up of the most eminent and distinguished members of the teaching staff. To become a member of this is one of the greatest honours which can be paid to a scientist on the staff. Candidates are nominated by the Chief of the Academy and their appointment is confirmed simultaneously by the Minister of Higher Education in the USSR and the Chief

of the Directorate of Military Schools, the GUVVUZ. The procedure is similar in other lesser academic institutions, depending upon their size and importance.

Thanks to its concern with teaching programmes and methods, and to the watchful eye which it keeps on the professional activities of the teachers, the Scientific Council acts as guarantee of the value of the scientific ranks and degrees granted to the students. The difficulty is that the supply of really first-class academicians, professors, lecturers, etc., tends to gravitate towards the more important institutions, with the result that in some of the provincial universities the qualifications of the Scientific Councils do not always reach the required standard.

The teaching section proper is headed by an Engineering Major-General or Engineer Colonel from the EAS, and is concerned with the organisation of training. Finally there is a scientific research department, the NIO, which prepares the annual plans of scientific research for all the faculties, and also submits recommendations to the Managing Department of the Air Force as to the amount which is to be spent on this work in each financial year.

The publishing department of the Academy is also under the teaching deputy. It has its own printing office and staff. Its task ranges from the publication of the scientific works of the Academy to printing memo. forms.

The work of the other two deputies, military and administrative, is indicated by their titles and does not need further explanation.

The work of the Zhukovski Academy has been treated in some detail, not so much because it is perhaps the most important institution of its kind in the USSR, but because its pattern is similar to that of every military institution for higher education in the USSR and for most of the non-military ones also, allowing for differences of objective.

This pattern is one which is peculiar to the Soviet world, although it has certain resemblances to academic life in Germany before the First World War.

As military teaching in the USSR has to be co-ordinated with the standards set by the Ministry of Education, the MVO, there has been created a special organisation, the GUVVUZ, whose chief is a Deputy Minister of Education for military questions, and is also on the staff of the Ministry of Defence.

The salaries paid in the military academies for officer professors range from £4,400 to £5,400 per annum. Civilians start at £2,500 and rise to £4,650. However it cannot be said that the standard of living is higher than in Britain; the reverse is rather the case owing to forced loans (25–35% of salary), high cost of living and lack of accommodation. The worst feature of their lives is that they have no scope for creative ability, all being subordinated to the day-to-day needs of the Party.

The Soviet air force has had some personnel of very high calibre at its disposal during the last few years. Among them were the mathematician Chaplygin, who died in 1942; the high-speed aerodynamics expert Khristianovich; the applied aerodynamics worker Yuriev, etc.

Among the designers there are Tupolev, who evolved the ANT-1, 9, 14, the TB-1, 3, 7, and other long-range aircraft such as that used by Chkalov and Gromov for their Moscow-America flight of 1938, also the TU-70 based on the B-29; Colonel-General Yakovlev the designer of the YAK-1, 3, 7, 9, 11, 18, among the best Soviet fighter machines; Lt.-General Iliushin who produced the IL-2 Stormovik, the famous anti-tank and ground attack craft, the IL-18 four-engine long-range passenger and freight carrier, and the two-engine jet bomber; Lt.-General Lavochkin, responsible for the LAGG-3, LA-5, LA-7 and

LA-9 jet fighter; Maj.-General Artem Mikoyan (brother of Anastasij Mikoyan), together with Gurevitch, conceived the MiG-1, MiG-3, MiG-5, MiG-9 (jet) and MiG-15 (jet).[1]

CURRENT TYPES OF SOVIET AIRCRAFT

Fighter-interceptors are usually jet-propelled, with a high speed in horizontal flight, but with relatively low manœuvrability. They are designed for a fast climb to intercept enemy bombers and cause them to break formation or divert their course. They are not expected to destroy the bombers. It should not be overlooked that considerable assistance to the development of Soviet jet aircraft was given by the British Government shortly after the end of the war in supplying the USSR with Rolls-Royce Nene jet engines.

Fighter-destroyers are predominantly airscrew, but jet engines are now coming in. They are highly manœuvrable, well armed with fixed machine-guns, cannon and rocket throwers, strongly built with high margins of safety, their vital parts protected by armour, and equipped with simplified mechanism for climbing, handling and landing in order to ease the strain on the pilot. Their task is to deal with fighter-interceptors and to get quickly into action, destroying the enemy by any means ranging from the classical

[1] In every Soviet Ministry there is a Department of Inventions and Developments subordinated to the State Planning Committee which is a separate organisation on the level of an independent Ministry. Every member of the Soviet armed forces, in fact every Soviet citizen, is under obligation to submit his or her ideas of new inventions or improvements to the appropriate government department which, after consultation with its scientific advisory committee, decides whether to proceed with or discontinue research on the proposal. In the event of acceptance, orders are passed through the State Planning Committee to the Ministries of Housing, Supplies, Man-power, and Finance to afford the inventor the necessary accommodation, materials and supplies, staff and finance to carry out his research, experiment or construction, as the case may be.

dog-fight to head-on ramming and cutting enemy controls by propeller cuts or with the wing-tips. They attack enemy escorting aircraft.

Escort fighters were not needed during the last war as the Soviets had no long-range bombers to escort. Now, however, twin-engine and four-engine types have been developed for long-distance work.

Dive bombers, for frontal attacks at low altitudes, are equipped with machine-guns, cannon and rockets, for attacks on tanks and other vehicles, trains, command posts, etc. The IL-2 and 10 were used for this.

Long-range bombers come under the Strategic Air Force, the ADD, and are at present commanded by Marshal Golovanov (whose H.Q. is in the Peter the Great Palace, Leningrad Chaussée, Moscow), subordinated direct to the Soviet Supreme Command.

During the last war the ADD used North American bombers B-25Cs and Bostons, also the Soviet twin-engined bombers DB-ZF, PE-8 and TB-8 powered by Diesel engines. The USSR now possesses heavy bombers driven by jets or propellers capable of flying atom bombs to any point in Europe and Asia, also over the Polar Ocean to Canada and the USA.

Reliable information is to hand pointing to speedy development of mass production of the latest Soviet four-engined jet bomber for atomic raids. One of them was shown over the Red Square in 1954.

The ADD is busily engaged in studying potential targets and their approaches. Particular attention is being paid to targets in Britain, in the Kiel-Copenhagen area, the Dardanelles, the Suez Canal, Malta, Gibraltar, Alaska and Canada.

As a rule the aerodynamics of Soviet aircraft are superior to those of western forces. Fuselage is of simpler construction,

but not of such good finish. Cockpits on all aircraft are standardised with fewer instruments to attend to, as compared to western aircraft, making piloting as easy as possible so as to concentrate the pilot's attention on the combat problems and reduce his flying action to a minimum of reflex movements. For these reasons Soviet aircraft are easier to fly and cheaper to produce.

Their engines are inferior to those of western aviation, with more frequent constructional faults, and are therefore less dependable. The Soviet air force has no special preference for German as compared to British engines. Fighter armaments are rockets and cannon of 20 mm., 30 mm. and 53 mm. with less endurance of barrel compared to western aircraft. A special aviation problem in the USSR is the freezing of oil in all the mobile mechanical parts and guns during the very low winter temperature.

On the whole the life of Soviet aircraft is shorter than that of western aircraft and so is the life of the Soviet pilot! A small detail of some interest is that all the Soviet fighter types have odd numbers (MiG-15, YAK-11, etc.) whilst bomber types have even numbers (TU-70, TU-72, etc.).

CHAPTER IV

GUIDED MISSILES AND ATOMIC WEAPONS

THE entire mechanism of guided missile production in the Soviet zone of Germany was taken over *en bloc* at the end of the war. Improved versions of the V-1 and the V-2 are in mass production. The first has an increased range of about a quarter, while the second, so well known to

Londoners during the latter stages of the war, now has a range of nearly 800 km. Apart from these there are the usual anti-aircraft rockets, tracking missiles, etc.

In 1944 the Soviets knew nothing about atomic weapons and, strangely enough, took no measures to develop them. By 1944, however, the government of the USSR was becoming interested in the matter, and a number of specialists who had been working on atomic projects were arrested in 1947 for negligence and lack of results. During that year Beria took the matter in hand, and research work was in progress when on the 8th November, 1947, Molotov said: "The USSR knows the secret of the atom bomb." This statement was pure bluff, as at the time the Soviets had not a single atom plant in operation.

It is possible that by the summer of 1949 a few experimental bombs had been produced and workshops for this were being organised, but Vishinsky's statement that they were in mass production was another piece of bluff. The reason for it was that the USSR in general and Vishinsky in particular were trying to gain time in the cold war so as to build up an atomic stockpile. Now, however, five more years have passed and the USSR has both atom and H-bombs and only lacks troops experienced in their use. By the end of 1955 doubtless this problem also will have been solved.

Apart from this there is reason to believe that intensive work is now being carried on in the USSR on guided missiles capable of carrying small atomic bombs. It is possible that in a year or so these weapons may affect the whole course of Soviet strategy.

Once the USSR has accumulated a stockpile of atom bombs, the Soviet High Command will not hesitate to use them. The reason for this is that having destroyed many millions of their own people in slave camps, a process which

still continues, they would not have the slightest compunction in destroying as many or even more people in the foreign capitalist states. In fact the atomic weapon, as an instrument of destruction and extreme violence, has a certain appeal to the absolutism of the men of the Kremlin.

CHAPTER V

THE SOVIET NAVY

TAKEN at its propaganda value, the Soviet navy is a powerful weapon of attack; in reality it is the weakest part of the Soviet war machine.

Between 1941 and 1944 the Baltic fleet was driven off the sea by the Germans and had to take shelter in the estuary of the River Neva.

At the Voroshilov Naval Academy the role of the Soviet navy is defined thus: "The navy is the handmaid of the Soviet army", a point of view which is shared by the Chief of the Naval Staff of the USSR. The reasons for this state of affairs are simple.

(1) Pre-revolutionary expansion and Soviet imperialism have advanced along land tracks and not along sea lanes, and have therefore bred an affection for the infantry and the cavalry but none for the navy.

(2) Neither the Russian nor the Soviet navy have ever won any territory from the enemy.

(3) The main operational areas—the Baltic, the Black Sea and the Caspian Sea—are all closed waters, thus reducing the activities of the fleet.

(4) Economic backwardness and the consequent absence

of overseas trade has prevented the construction of large ships.

(5) Even in the Second World War the Soviet navy had practically no great operational experience.

Lately, however, with German aid, more energetic measures are in hand. New capital ships are being constructed, and in addition to these the Soviet navy has now between 300 and 370 submarines, some capable of very high speeds.

The emphasis on the use of submarines and small naval craft is to some extent dictated by the geography of the Soviet Union. The great part of the Soviet navy is based on the Baltic Sea, where there are numerous shipyards and repair yards under Soviet control. But in the event of war there is always the possibility that the western exit from the Baltic might be blocked, thus reducing the navy to impotence.

However, through the linking up of the main internal waterways of the USSR by a system of canals connecting the Neva, the North Dvina, the Volga and the Don, which existed before the revolution but has been extended by the Soviets (*e.g.* by the recently constructed Volga-Don canal), it is now possible to move submarines and small craft from the Baltic either to the Black or Caspian Seas and from either of these seas to the White Sea in Arctic waters. Through the latter it would be possible to reinforce the Far Eastern fleet during the two summer months when the North Siberian coastal waters are relatively free from ice.

CHAPTER VI

WAR SUPPLIES AND MUNITION INDUSTRIES

Soviet stockpiling of food, raw materials and equipment is calculated to meet the requirements of a five years' war on two fronts with an armed (uniformed) man-power intake of 40 million for the five years' duration.

In some directions 80–85% of this aim has already been achieved, but in others there are certain deficiencies, especially with food, for the following reasons.

(1) Grain producers in the USSR are not interested in quality but solely in the quantity of supplies delivered to the state grain elevators. For this reason the percentage of impurity may be large, apart from which raw grain is frequently supplied which may in the course of time become unfit for human consumption.

(2) The State receiving agencies, grain inspectors, etc., are also interested in quantity rather than quality, so that a liberal margin must be allowed for unusable grain in the silos and elevators.

(3) Well equipped grain elevators are lacking.

(4) Bad roads and lack of transport mean that troops even in peace-time frequently receive only half their standard rations.

Equipment research. To a large extent the Soviet war industry has been nurtured on the results of widespread espionage, the use of foreign inventions, and the capture of material.

Blind landing in the air force came from the Americans, the technique of building atom-bombs from the Americans,

Canadians, and British, and to some extent from the Germans.

Heavy bombers have been developed from the B-29. Radar came entirely from British and German sources. British Rotol-type airscrews are now used in the USSR.[1]

The Tiger and the Ferdinand self-propelled guns were evolved from German models. Radio-controlled tanks and bombs are from Germany. The Vickers-type ring bomb-detectors are from Britain. The V-1 and V-2 came from the Germans.[2]

War booty and military potential. Immediately after the war the Soviet High Command began the study of captured German war supplies, production of munitions and research work. After the military booty had been taken into stock, a number of German specialists were sent to the USSR to take part in a new armament drive, based on British, United States, French and Japanese experience. Japanese officers were employed to study conditions in Far Eastern theatres of war.

The Peenemunde rocket works were transferred to the shores of the eastern Baltic while Soviet experimental plants for V-2s were served by German prisoners of war. The existing Peenemunde establishment has been completely rebuilt by the Soviet army.

A small example illustrates Soviet indebtedness to Germany. At the end of the war the USSR had no air maps of the world. The preparation of these would have taken ten years' work and considerable expense. But by a

[1] German technical experience with Walther and BMW engines was used in designing the original Soviet rocket and jet engines, but their mass production problems were satisfactorily solved only on receipt of the British Rolls-Royce Nene engines.

[2] Soviet air attachés in the western countries were most helpful. They have fully justified the mission entrusted to them, while Soviet spies are also useful.

stroke of good fortune they got the whole collection as booty from the Luftwaffe.

Many specialists from the Gestapo were taken over by the MVD (security police) to demonstrate methods of interrogation, photo-microscopy, forging of currency and passports, etc., together with their equipment in full running order.

Aircraft production. The DFL (*Deutsche Versuchanstalt für Luftfahrtforschung*) was transferred from Berlin-Adlershof to the USSR together with Professor von Bock, to be taken over by the Central Aerohydrodynamic Institute (the CAGI) in Moscow. In the same way the Flight-testing Institute of the Luftwaffe at Rechlin was handed over to its counterpart in the USSR, the Brandenburg aircraft factories to Artem Mikoyan, designer of the MiG-15, the Junkers works at Dessau were transferred to Kuibishev on the Volga, etc.

The aircraft industry of the USSR has tended to lag behind, owing to constant interference by political security organs, periodical purges resulting in the imprisonment of talented constructors and other workers, and the general low level of technical efficiency in the industry.[1]

The result of all this was that at the end of the war the USSR had not produced a single jet engine or guided missile, and were only enabled to do so thanks to the help already described. This was especially the case with the British Nene engines sold by the Ministry of Supply in 1947–8 which were fitted to Soviet fighters.

Soviet airfields are badly organised and maintenance services are poor, the result being that much of the aircraft is unserviceable.

From 1951 it was planned to produce 10,000 jet-propelled

[1] This is despite the fact that research and instruction in aerodynamics stand at a higher level in the USSR to-day than they do, for example, in Britain.

fighter aircraft yearly. Output, however, is suffering from inferior steel, faulty welding, lack of durability, frequent structural failures, excessive weight and constructional deformations.

The standard material used during the last war was wood; as this has proved unsatisfactory owing to frost and extreme changes in temperature, fuselages are now made of metal. Rubber of bad quality resulted in faulty undercarriage wheels. In general the day-to-day shortage of home-produced natural or artificial rubber is creating a bottle-neck in many branches of munition production.

Standardisation. The Soviets are well on the way to achieving complete standardisation of arms, equipment, and training between the USSR and the satellite states, and the question is one of the chief preoccupations of the General Staff.

In the main the satellite forces use Soviet standard equipment: aircraft, artillery, road transport, etc. The ammunition used by their ground forces is of Soviet calibres and usually bears Soviet markings. Their small arms are of 7.65 mm. calibre.

Drill is of the Soviet pattern, while training manuals are always translated from the corresponding Soviet textbooks.

Any national distinctions allowed to satellite armies are in name and appearance only, and whatever may be said of their morale, their organisation and technical equipment are simply an extension of the armed forces of the USSR.

CHAPTER VII

STAFF AND MILITARY EDUCATION

WE have already seen that military education in all its branches in the USSR is considered so important that it is handled by a special organisation, the GUVVUZ, the Managing Department of Higher Military Teaching Establishments, whose chief is on the staff of the Defence Ministry and also holds the rank of Deputy Minister of Education, acting as a link between the Defence Ministry and the Ministry of Higher Education (the MVO).

The organisation of all these colleges and institutions is on lines similar to that of the Zhukovski Academy, the VVIAZ, with the political sphere intruding into all categories of technical training. The two diagrams, showing respectively the political-administrative organisation and the educational-administrative organisation of the VVIAZ, demonstrate the way in which the MVD infiltrates into every department of academic life. Certain of the links are marked with queries, as in these cases nobody knows which is the senior of the two.

The point is that the VVIAZ is typical of all the others, allowing for the various aspects of technical training. Naturally only the more important bodies have such elaborate networks of administration and command, but the basic principles remain the same. The following list shows the more important Staff and military training institutions in the USSR, with some details as to the type of work in which they specialise. The list is not complete, but comprises practically all the senior establishments:

(1) The Voroshilov Higher Military Academy in Moscow,

which is a General Staff College for military commanders of high qualifications and rank.

(2) The Frunze Military Academy in Moscow for combat commanders and Staff officers of all branches.

(3) The Zhukovski Air Engineering Academy in Moscow, for the higher training of air engineers, designers and scientists of all grades.

(4) The Military Air Engineering Academy in Leningrad, which trains engineers for the ancillary services of combat air force units.

(5) The Military Air Academy for Commanding and Navigating Personnel in Monino, near Moscow, which trains commanding staff of all grades for the air force. This is the largest training centre for operational personnel of the Soviet air force and it has a number of leading professors and lecturers on Soviet strategy and tactics.

(6) The Lenin Military Political Academy in Moscow, which trains commissars and political workers of all grades for all branches of the services. This establishment is a true nursery of fanaticism and propaganda, and its pupils are to be found in every part of the globe where there is civil unrest.

(7) The Stalin Military War Academy of Mechanisation and Motorisation in Moscow, which trains commanding officers and personnel for the tank corps.

(8) The Voroshilov Chemical Warfare Academy in Moscow, which trains commanding officers and engineers for military chemical services.

(9) The Kubishev Military Engineering Academy in Moscow, the largest institution of its kind in the world. It trains commanders and specialists in fortification, ground anti-aircraft and atomic defence, pontoon work, bridge-building, underground mining, the lay-out of stores, ammunition and other dumps, etc.

(10) The Kaganovich Military Transport Academy at Leningrad, which trains commanders and specialists in every form of military communications and allied services.

(11) The Dzerzhinski Artillery Academy in Moscow, which trains commanding officers and engineers for artillery, mortars and rockets.

(12) The Voroshilov Naval Academy at Leningrad, which trains commanding officers for the navy.

(13) The Kirov Military Medical Academy at Leningrad, which trains medical personnel of all branches for the armed forces.

(14) The Military Legal Academy in Moscow, which trains military lawyers for all services and is also a second centre for political indoctrination.

(15) The Budienny Military Electrotechnical Academy at Leningrad, which trains commanders and engineers for electrical and radionic services in all branches.

(16) The Military Diplomatic College in Moscow, established in 1944. Here are trained spies, diversionists, resistance leaders, military attachés for work in Soviet embassies abroad, etc.

In addition to numerous other higher military academies and institutions, there is also a network of secondary military schools for various specialities.

Without exception all civilian educational establishments, technical and secondary, have chairs of military science filled by officers ranging from Major to General. Students in these schools follow regular military courses, after which they are promoted to the rank of reserve officer, the ranks ranging from platoon commander to battalion commander. This system gives the Red Army a reserve of some 800,000 officers of good quality.

The semi-military associations which as we have seen

number about 15 million men and women, have their own training schools, clubs, practice-ranges, etc., all over the Soviet Union.

CHAPTER VIII

WELFARE OF THE SOVIET FORCES

THE pay of a private soldier in the Soviet forces is about 30 roubles a month, which is usually just enough to pay his Party or Comsomol subscriptions, the balance, if any, going to the purchase of compulsory State loans. His family gets exemption from taxation, but no allowance. The pay of an officer ranges from 1,000 roubles a month for junior to 5,000 roubles a month for seniors.

The diet of a private soldier consists of herrings, black bread, salt fish, cabbage and potatoes. The first course of the main meal consists of fish or cabbage soup, the second course of whatever was boiled in the soup, usually fish. Sometimes *kasha* (buckwheat) is served; sometimes meat, but infrequently. Junior officers and cadet officers are fed approximately as well as privates in western armies. Senior officers and Generals receive very good food at extremely low prices.

The uniform of the average soldier is usually in a bad state, sometimes ragged, with patched trousers and tunic, and dirty and smelly underwear. In some distant provincial garrisons there is no underwear. Soap is a luxury. Junior officers are adequately dressed, but senior officers and Generals are frequently dressed as well, if not better, than their corresponding ranks in the west.

The legal status of a private soldier is very low; nowhere in the world have inferior ranks so few rights and so many

duties. The officers, especially the seniors, have unlimited power over the private soldier. The striking of blows with the fists is not at all unusual. He has no right to appear in any public place, cinema, or theatre, unless accompanied by a soldier of senior rank. Drinking in public usually leads to a charge of drunkenness.

Conscripts are usually sent to serve in the most distant parts of the USSR. Caucasians, for example, are sent to the Far East or the Far North, and are never allowed to serve in their native land. The same applies to other non-Russian peoples: Ukrainians, Byelorussians, Tartars, Turcomans, etc. Only a few are allowed to serve together in the same unit. They are distrusted and in fact many went over to the Germans in the last war.

As a sidelight on this it should be remarked that in 1942 there was a rebellion in the northern Caucasus, in which the Chechen and the Ingush took part, and later the Karachaj, Kalmyk, and Crimean Tartar peoples. After the German retreat those who remained in their native lands were deported to Siberia or Turkestan, as happened to the Baltic Races, the Latvians, Lithuanians and Estonians.

CHAPTER IX

MORALE OF THE SOVIET FORCES

To the Soviet government the problem of morale, not only in their own forces, but in those of their potential enemies, is one that receives considerable attention in military academies and schools, where it is studied in the same manner as the problems of tanks, guns and other weapons.

The training of both officers and men is designed to

instil in them a firm belief in the weakness of the capitalist countries owing to the continued existence of private property and the consequent class-war between property owners and labour. On account of this, they are told, the Soviet advance into the west will not be opposed by the bulk of the population but, on the contrary, will be met by internal disorder, rebellion and partisan attacks against the local governments, organised by the "Kremlin Column".[1]

The control of political indoctrination in the USSR is in the hands of the Chief Political Department of the Armed Forces (*Glavnoye Politicheskoye Upzavlenie Vooruzennykh Sil*) which is a component part of the Central Committee of the Communist Party (CCCPSU). This is important as it means that the problem of the morale of the Soviet forces is the direct concern of the Communist Party, whose aim is the eventual destruction of the capitalist world.

One of the doctrines of the Party is that war is a product of class-society, and that the abolition of war can only be accomplished by the abolition of capitalist society. The class-struggle must be developed to its logical conclusion, the overthrow by violence of the entire system of capitalism.[2] These aims have been accomplished within the boundaries of pre-Soviet Russia. It is the duty of the first Soviet classless dictatorship to do the same for the rest of the world.

There are many passages in the works of both Lenin and Stalin which develop this point of view, and their successors

[1] "The numerous friends of the working class of the USSR in Europe and in Asia will do their best to strike a blow in the rear at their oppressors who start a criminal war against the fatherland of the working class of all countries." (Stalin, *Leninism*, p. 480.)

[2] This doctrine is illustrated by a quotation from the *History of the Communist Party of the Soviet Union* (Moscow, 1948), p. 87: "A decisive victory of the revolution . . . must inevitably rely on military force, on the arming of the masses, on an uprising, and not on institutions of one kind or another, established in a 'lawful' or 'peaceful' way."

are fully committed to it, no matter how long the objective may take to achieve, or how often and how far they may deviate from it in order to gain temporary or secondary objectives.

Since 1946 additional stimulus has been given to the idea by the Central Committee of the Communist Party by means of endless propaganda demonstrating the superiority of Russian culture, inventiveness and ideology. This method may be termed *Russachestvo,* being a blend of Marxist-Leninist-Stalinist philosophy on the one hand and a Great Russian-Nationalist-Messianic creed on the other.

"Russia is the birthplace of Leninism, the greatest revolutionary science of modern times." (*Bolshevist,* 1945, No. 21.)

"The Russian proletariat is the advance guard of the workers of the whole world."

"Their leaders are the greatest thinkers of all times, surpassing not only the philosophers of the past, but also those of the present western world."

"The Russian nation is in the forefront of the Soviet Union, which leads the world to progress and civilisation. There are no bounds to its expansion. The Russians have given to the world all the most famous inventions in the history of mankind."

"Tractors were invented by a Russian in 1888, not by the American, Holt." (*Novy Mir,* 1949, No. 9.)

"The first motor-driven aircraft was invented by a Russian named Mozajski, and not by the Wright Brothers."

"The helicopter was invented by B. N. Yuriev, the Russian Academician."

"The parachute was invented by the Russians, as were bomb racks, electric furnaces, electric light, wireless, the telegraph, the manufacture of paper, railways, motor cars, photography, etc., etc." (Danilevski, *Russian Technical Achievements* 1947.)

The danger in all these claims lies in the fact that in the USSR there is only a small minority who recognise that they are inaccurate, and these people are effectively prevented from opening their mouths.

The Chief Political Department of the Soviet Armed Forces has its representatives in every unit down to the platoon. No meeting or assembly of any kind, no matter how innocent, whether on or off duty, may be arranged without their participation. Whether it be a dance or a film show, a lecture or a funeral, it cannot be held without one or more of the *politruks*[1] taking part in it to observe and report to the Political Department.

These *politruks* are trained propagandists, skilled in the employment of any means to bolster up the morale of the troops, to increase their pride in everything in the USSR that marks the superiority of the Soviets and to intensify their hatred of the west and all it stands for. They keep a constant watch over the observance of the Code of Military Discipline, and report any breaches of it.[2] For this reason their influence is wide and all-pervasive. Its aim is the bringing of the fighting spirit of the Red Army to the highest pitch of enthusiasm.

They are as much concerned with the morale of the individual soldier as with that of an entire unit. The responsibility of the *politruk* of lower rank to his superior is very strictly defined. He is personally liable for any failures or insubordination among the rank and file under his supervision. No member of the Soviet Army is in a position to evade the searching scrutiny of a *politruk*.[3]

[1] A *politruk* (political adviser) is a uniformed member or agent of the Chief Political Department of the Soviet Armed Forces.

[2] "This is the main task of the political organs in the armed forces." (*Red Star*, No. 7056.)

[3] Such intensive indoctrination aims at complete "psychological automatisation" or uniformity in thought, and automatic reaction to given orders.

The efforts of the *politruks* are greatly hampered by the presence of so many national minorities in the Soviet forces, as the sense of patriotism of the latter is naturally different from that of the ordinary Soviet citizen. A Kirghiz from Turkestan, or a Georgian from the Caucasus is not interested in the rest of the USSR, and more often than not he is thoroughly homesick during his years of military service which he invariably spends in some distant part of the Soviet Union.

It is extremely difficult to instil a standard form of patriotism into such a medley of peoples. This fact is another reason for the existence of the *politruks*, but the measure of success which they achieve is difficult to estimate.

Naturally fear plays a vital part in maintaining submission and obedience, while the fact that living conditions—food, clothing, housing, etc.—in the army, bad as they are, are better than those in civil life, has a definite influence on the morale of the troops.

CHAPTER X

THE POWER OF THE SOVIETS: ASSETS AND LIABILITIES

In trying to strike a balance sheet of the assets and the liabilities of the Soviet imperialistic structure, it is necessary to take into consideration the main features of the strategic position, the principal objectives, and the means whereby they may be attained.

The means whereby the Soviets hope to attain victory have been summarised only in general terms as they are in

a constant state of flux. Certain other factors have also received only superficial examination as they hardly come within the scope of this work. This applies particularly to the economic potentials, affecting problems of the supply of munitions and even of morale, which have only been sketched. It applies also to political and ideological considerations.

Nevertheless from what has been said, even though briefly, the following conclusions may be drawn.

The political and military position of the USSR, in terms of geopolitics, is very strong. The USSR is well protected in her eastern and, to some extent, her southern Asiatic fronts, by her close association with the newly born Chinese communist régime. The northern Arctic front is a natural barrier against foreign invasion. The enormous extent of land occupied by the USSR in Europe and Asia is a further protection against air attack and any form of land operation.

Behind their natural defences the Soviets harbour ambitious plans for world-wide expansion and the spread of communism and are making large-scale preparations to carry them out. The leaders of the USSR are fully aware of their need of adequate means in order to carry out their policy of expansion. This fact explains their careful, secret and methodical manner of going to work.

Normally such efforts would be directed towards the improvement of the already enormous Soviet army, but recently the air force has been receiving more attention. Since the end of the last war the General Staff of the USSR has given up its previous "land-minded" conception of the use of an air force. From being used solely in close support of the army, the Soviet air force is now passing to the planning of independent strategic operations, calling for a corresponding increase in the construction of long-distance heavy aircraft. The need for the latter has also

emerged in the development of long-distance inland communications in the USSR.

For the Soviets the air has become, in fact, a new front, requiring enormous organisation, scientific preparation and industrial expansion, all of which concern elements of which little has been known up to now and which are largely independent of the traditional physical and geographical considerations which have hitherto governed Soviet military strategy.

It is difficult to estimate how far this new Soviet air policy is succeeding. An account has already been given of some of the technical difficulties which have to be overcome before it can be achieved. On the other hand it must be realised that energetic steps are now being taken to overcome these handicaps.

The Soviet land forces are extremely strong, numerically much stronger than anything which can be opposed to them at the moment in the west. The Command is experienced and well trained. Rapid progress is being made in the development of modern weapons of war to enable the Soviet army to stand on a parity with the western Powers.

The morale of the Soviet troops under "psychological automatisation" is good on the whole though they are subjected to excessive indoctrination, a process which is very marked in military educational establishments.

On the other hand the Soviet forces are still suffering from shortages of all kinds of equipment, such as long-range bombers and troop carriers, atomic weapons, radio equipment of all kinds, mechanical transport of every description, clothing, medical stores, etc., etc. But these deficiencies are temporary and are being met.

This is perhaps more than can be said for those difficulties which arise from natural causes or are inherent in the political and economic system of the USSR.

In the first group there are two major problems to be overcome:

(*a*) The intake of man-power into the Soviet forces is mainly from agricultural workers, who are notoriously inept in their handling of mechanical equipment and tend to put it out of action at a pace unheard of in the West.

(*b*) The USSR is short of two of the most important raw materials for modern warfare: oil and rubber. 60% of the Soviet output of oil is produced in one small and vulnerable area of the Caucasus. The domestic production of rubber, either raw or synthetic, is limited. Efforts to overcome these shortages by stockpiling are not entirely satisfactory.

In the second group there are certain complex problems connected with economic planning and political administration:

(*a*) Both political and economic power and administration are excessively centralised. Not only is there no sign of relaxation in this respect, there has even been a tightening of control by the appointment of local dictators in distant areas who are directly responsible to the Moscow oligarchy. The effect is to swell still further the ranks of the already monstrous bureaucracy, and to add to its inefficiency and stagnation, affecting thereby not only the general administration, but also the armed forces.

Resulting from this are the periodical purges and clean-ups of administrative staff who are found guilty or merely held suspect of negligence or sabotage. This method of dealing with inefficiency only causes further dislocation in the administration, depriving it of a normal and gradual succession in administrative and executive posts.

(*b*) The existing system of forced or slave labour,

confined in concentration camps and estimated at not less than 10,000,000, is an element of great political and economic weakness, and of danger in the event of war.

(*c*) The presence in the armed forces of members of national minorities, many of whom were victims of brutal reprisals for their defection in the last war, raises the question of the loyalty of at least a large proportion of the Soviet forces. In time of war this would be a source of weakness or even peril to the Soviet state.

(*d*) The security system operating throughout the Soviet armed forces breeds constant discontent and irritation even at the highest levels in the Red Army, particularly owing to the supervision of the ordinary military establishment by the political MVD troops with their independent Command and ancillary services of all kinds.

The cordons (*zagraditelnye otdyely*) of these troops which held positions during the last war at the rear of the Red Army, created a breach between the regular soldiers and the political soldiers. This split reached almost to the very core of the Soviet system and may yet prove to be a decisive factor in the future development of the USSR. To prevent it from developing, a policy of further expansion abroad may appear to the Soviet leaders as the best means of closing their ranks.

In any case the bulk of the peoples of the USSR have no say in the matter and the rest of the world can only guess what is being decided and prepared within the Kremlin.

It would however be foolish to assume that this silence on the part of the Moscow oligarchy betokens any softening in their attitude towards the west.

We should dismiss as false the idea prevalent in many western countries that "Russia never initiates an offensive

war!" This was certainly not true of the old Tsarist governments and is certainly even less so of the Soviets, who, within recent years, have attacked Finland in 1939–40, occupied eastern Poland, Bessarabia and the Baltic States in 1939, and occupied Tuva, a Mongolian province the size of England, in 1944. This last act of aggression was carried through without any knowledge of it reaching the western world.

It is of course true that the Soviets prefer to concentrate on the absorption of small countries and to promote wars between their neighbours in the hope of ultimate profit. Such "wars by proxy" include Korea in 1950, the war in Indo-China and the abortive "rebellion" in Greece.[1] Nobody has expressed this policy better than Stalin in his favourite dictum: "Let others pull the chestnuts out of the fire!"[2] This statement was usually employed in accusation of the west, but the reader should recall what has been said earlier[3] on the subject of "just wars", so called in order to justify Soviet aggression.

It should be clearly understood that the time, manner and direction of the attacks of the USSR will be decided solely by the few persons standing at the head of the Kremlin oligarchy, uncontrolled and unhindered by any independent body of public opinion, such as exists in the Western World Parliament, and finds expression in opposition parties, or a free press. In so far as there is any public opinion in the USSR it is under the full control of the Kremlin rulers who can turn it on or off in any direction they desire.

On the other hand the Soviet army is thoroughly indoctrinated and well disciplined, and is therefore a formidable weapon of aggression.

In the timing and direction of possible Soviet attacks,

[1] See above, p. 19. [2] *Leninism*, p. 630. [3] See above, p. 10.

careful watch should be kept on those parts of the communist world where the USSR herself is not directly involved, mainly in the Far East and in south-eastern Asia, where "national liberation" movements sponsored by the Soviets are linked with anti-Western and anti-capitalist sentiments. On purely moral grounds the use of atom bombs would seem to be excluded from these minor disputes, and the West is therefore prevented from securing any decisive victory. At the same time they fit in with general Soviet policy by increasing the friction along the belt stretching from the Pacific to the Atlantic, where the interests of the western Powers are so much involved. The strategy of the 30th parallel which has been worked out by the Soviet General Staff is at the back of Soviet policy in southern Asia and northern Africa.[1]

Unless and until a "hot war" should flare up in the East, the Soviets are unlikely to resume their "liberation" movements in western Europe.

In such a case the most likely immediate objective would be the occupation of the Danish Straits on the Kiel-Malmö Line, followed by a sweep of the Soviet submarine fleet into the North Sea for attacks on British and United States shipping. Simultaneously there would be a consolidation of the Soviet hold on Scandinavia which would be used as a base for attacks on the English mainland. Such actions however would only be resorted to if, owing to internal weakness in the west or for other causes, the Soviet rulers foresaw the complete certainty of success.

In the meantime their psychological attack, usually known as the "cold war", will be directed to the softening-up of

[1] See above, p. 15; cp. Stalin, *Leninism*, p. 199: "The October revolution has shaken imperialism not only in the centres of its domination, not only in the 'mother countries'. It has also struck blows at the rear of imperialism, its periphery having undermined the rule of imperialism in the colonial and dependent countries."

the western world by "peace movements", the creation of exaggerated trade expectations, the activities of the "Kremlin Column", and such other measures as may be invented or evolved during the struggle.

On the diplomatic level, with the support of the appropriate propaganda agencies, they will endeavour to split the western nations by stirring up local and national hatreds, such as that between the French and the Germans, or between Europe and the United States, or by rekindling chauvinistic embers which have been left to smoulder, working on the colour bar in America or Britain, on the French neutralists, and on party feuds anywhere and everywhere, backed up with strikes and discontent.

By playing on these feelings and pretending that in the USSR a new area of appeasement has dawned, a "new look" to which the western peoples might be attracted, Soviet diplomacy hopes to obtain a peaceful disruption of western defences, after which the border countries will be brought piecemeal under Soviet influence and control without a major conflict of any kind.

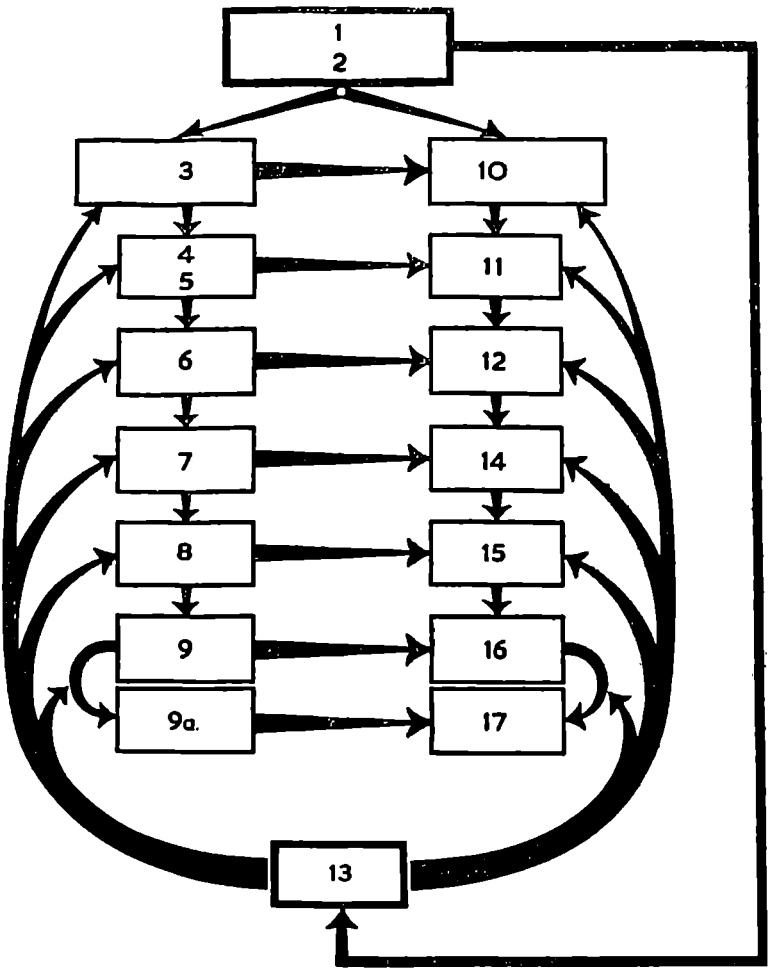
The refusal of western public opinion to realise the existence of these Machiavellian tactics on the part of the Soviets, is of great assistance to them by putting the brake on western rearmament and the unification of western policy.

G. A. TOKAEV

DIAGRAM "A"

POLITICAL-ADMINISTRATIVE DEPARTMENTS OF THE ACADEMY

(Thick black lines show Security Control)

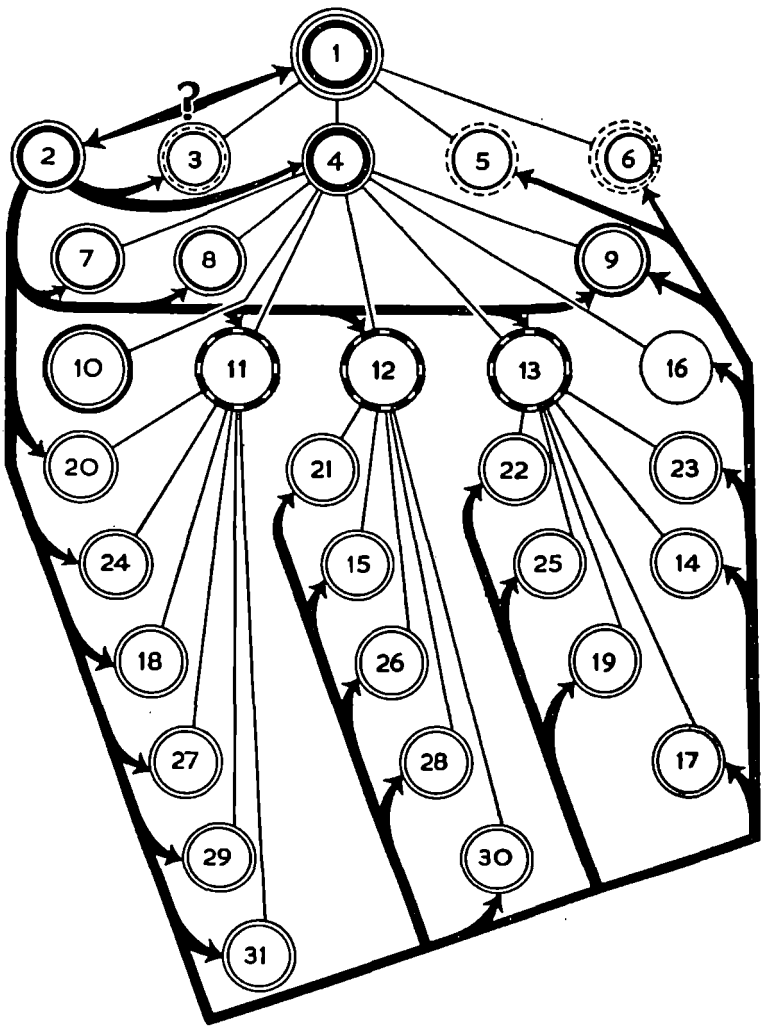


1. Secretary of the Central Committee of the Communist Party of the Soviet Union.
2. Chairman of the Council of Ministers of Soviet Union.
3. Presidium of the Central Committe of the Communist Party of the Soviet Union.
4. Apparatus of the Central Committee.
5. The Chief Political Department of Armed Forces at the Presidium of the Central Committee of the Communist Party.
6. Political Department of the Air Force.
7. Political Department of the Academy.
8. Deputy Chief of the Faculty of Political Work (Commissar of Academy).
9. Secretary of the Party Organisation. ("Partorg") of the Course.
9a. Secretary of the Party Org. of the Group.
10. The Council of Ministers of USSR.
11. War Ministry (controls all Armed Forces except Navy).
12. H.Q. of the Air Force (Air Ministry).
13. Ministry of Home Affairs (MVD).
14. Commander of the Academy.
15. Commander of the Faculty.
16. Commander of the Course.
17. Training Group (a class).

DIAGRAM "B"

EDUCATIONAL-ADMINISTRATIVE DEPARTMENT OF THE ACADEMY

(Thick black lines show Security Control)



1. Commander of the Academy.
2. Special Section in the Academy of the Ministry of Home Affairs (MVD).
3. Deputy Commander for the Political Department (Commissar of the Academy).
4. Deputy Commander for the Scientific and Educational Departments.
5. Deputy Commander for Military Training Departments.
6. Deputy Commander for Technical Equipment and Supplies.
7. Scientific Research of the Academy.
8. Publishing Department of the Academy.
9. Scientific Council.
10. Aerodynamical Laboratory.
11. Faculty of Engineering.
12. Faulty of Aviation Armament.
13. Faculty of Special Aviation Equipment.
14. Faculty of Secret matters.
15. Cannon armaments.
16. Two years preparatory course for engineers.
17. Remote control.
18. Operational.
19. Aerodrome equipment.
20. Fuselage specialities.
21. Rocket armament.
22. Radio—radar.
23. Aviation instruments.
24. Engine specialities.
25. Fuselage-electrical equipment.
26. Bombs.
27. Fuel.
28. Bomb sights.
29. Jet Engines.
30. Specialities.
31. Special group.