FIRST of all, allow me to express my feeling of deep satisfaction at the opportunity of speaking before the members of the Alpine Club on mountaineering in the Union of Soviet Socialist Republics.

In our time people from all countries seek common issues that may bring them together in their natural aspiration for the progress of humanity and for peace. The clouds that appear now and then on the political horizon cannot stop this movement. We mountaineers know very well that the heaviest storms come to their end, that cloudless weather sets in. There is good ground for believing that the relations between our peoples have entered the days of cloudless weather.

May I express my firm belief that the contact between mountaineers of Great Britain and the U.S.S.R. which was established in Moscow in 1954 by Sir John Hunt’s report on the ascent of Everest will grow stronger and stronger and will produce fruitful results? Soviet climbers know a lot about the activities of the Alpine Club and in particular about the ascents of a number of summits in Central Asia made by its members.

It was with great interest that we learned the story of the first attempts on the highest spot of the globe, the history of which is closely linked with the names of Mallory and Irvine, Norton and Somervell. Your conquest of Everest in 1953 aroused deep interest not only among mountaineers but also among a wide public of my country. Indeed, an edition of 30,000 copies of Sir John Hunt’s book will shortly be published in Moscow. The book was skilfully translated into Russian by my younger friend, a mountaineer, Eugene Gippenreiter, who is present tonight as interpreter, and also by Boris Garf, one of the most distinguished climbers in the U.S.S.R.

We in Russia have followed with great attention and interest the history of the ascents of the Himalayan range made during recent years by Hillary, Shipton, Evans, Bourdillon and other mountaineers of Great Britain and the Commonwealth. We have no doubt that further strengthening of our friendly ties and the exchange of information between mountaineers of both countries will be a valuable contribution to our experience and will be beneficial to both sides.

Before leaving for London, when at the All-Union Physical Culture and Sports Committee attached to the Council of Ministers of the
U.S.S.R., which is the highest governmental body supervising sports in our country, I read a number of letters written by English mountaineers, including one from Mr. Thomas, of Manchester, who wishes to make ascents on the Caucasus in the district of Bezingeiskaya Stena, which is widely known in our country, or to climb some virgin peak in the Caucasus.

I should like to make it clear that the time has passed for pioneer ascents in the Caucasus. Within some pre-war years and during post-war years Soviet mountaineers conquered dozens and hundreds of the Caucasian peaks. On the highest part of the main Caucasian range and its major spurs for the space of over 350 km. from the upper reaches of the Zelenchuk and Teberda rivers and eastward as far as the Voenno-Gruzinskaya road, there is not now any respectable peak which has been left unconquered by our mountaineers.

Our mountaineers have attained their present level of skill by an original way. Therefore, before dwelling on the successes achieved by the Soviet climbers I am bound briefly to outline the history of mountaineering in the U.S.S.R.

The evidence of the remote past indicates that there existed courageous mountaineers in time immemorial. The Pamir and Tien-Shan ranges had been crossed by caravans of merchants and travellers long before our era; later on, by their trails went a Chinese traveller Syuan Tszang and the legendary Venetian, Marco Polo. Russian explorers of the Pamirs found signs of early mountaineers at the upper reaches of one of the tributaries of the Fedchenko glacier. Tajiks and Uzbeks had crossed the passes which have been recently explored by modern mountaineers armed with up-to-date technique.

We have a right to state that the first to reach the snow peak of Elbrus, the highest spot of the European continent, was Killar Khashirov, a Kabardinian who led the Russian expedition under General Emmanuel in 1829.1

It is worthwhile mentioning that 120 years later Tolstov, a Soviet mountaineer and scientific worker of the Academy of Science of the U.S.S.R., found some traces of this expedition on the northern slopes of Elbrus at the height of 4,800 m.; they were a military cross cut into the crags and a trident made of iron which was used instead of an ice-axe. In the same year of 1829, Khachatur Abovyan, one of the creators of Armenian literature, together with an Estonian, Professor Parrot, ascended the summit of Ararat. Later on, the highest but less difficult peaks of the Caucasus were repeatedly climbed. The people

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1 This claim is not generally accepted. See A.J. 2, 168 and 59. 460. The higher peak was ascended in 1874 by F. Gardiner, F. C. Grove and H. Walker with Peter Knubel; the lower peak was climbed in 1868 by D. W. Freshfield, A. W. Moore, C. C. Tucker with François Dévouassoud and two local hunters.
who had made these ascents were either those who were attracted by the exceptionally beautiful nature of the Caucasus or those who were anxious to explore high country. Among them were your countrymen, members of the Alpine Club.

The first name to be mentioned is Douglas Freshfield, who is well known in our country and whose fundamental works on the geography of the Caucasus have not lost their significance even in our time. An outstanding explorer and traveller he, already in his ripe years, greeted the first successes achieved by the Soviet mountaineers. In 1926 the 84-year-old Freshfield heard Professor Nikoladze read his paper to the Royal Geographical Society on mountaineering in Georgia and the ascent of Elbrus. In his letters to Nikoladze, Douglas Freshfield warmly congratulated the members of the Soviet expeditions to Elbrus.

'I am an old man now and cannot reckon upon coming to you,' he wrote, 'but I hope that several more years I shall be able to watch the development of your mountaineering in the field of high-altitude summits and uplands.'

We are also aware of the fruitful activities of other British explorers of the Alpine Caucasus and the courageous Caucasian ascents made by Cockin, Woolley and Donkin. Hundreds of Soviet climbers made accessible routes to the peak named after Woolley and to the Donkin pass.

By the end of the last century the first Russian Alpine Club attached to the Caucasian Natural Society had been organised. Later on, the Russian Alpine Society was formed as well as some other less important amateur organisations at Pyatigorsk, Odessa and in the Crimea.

For many reasons mountaineering in Tsarist Russia was confined to a few amateurs; in those times only representatives of well-to-do classes could afford mountaineering.

Despite its restricted character the Russian Society succeeded in contributing to the exploration of the Caucasus, and its members made a number of comparatively brave ascents. Traditions and experience of the best alpine climbers of old Russia formed a certain foundation for the first successes achieved by the mountaineers of a new Soviet formation.

The history of this period of the development of mountaineering in our country is closely connected with the radical social transformations brought about by the October Socialist Revolution. Under these new conditions our mountaineers have got every opportunity to take fascinating journeys among mountains.

In 1953 we celebrated the thirtieth anniversary of Soviet mountaineering. The beginning of its history dates back to 1923 when Kazbek was ascended by two large parties including twenty-five Georgian
climbers headed by the professors of the Tbilisyan University, G. N. Nikoladze and A. I. Didebalidze. Since then Kazbek, Elbrus and some other accessible summits have been repeatedly ascended by Soviet mountaineers.

In the 'thirties the first long expeditions on the Pamirs and Tien Shan were successfully accomplished. Some more victories of great significance were won in the Caucasus. The number of climbers participating in mountain travels increased; not only students and intellectuals but also young workers from big industrial centres took up mountaineering. Quite a number of young peasants in Georgia, Kabarda, North Ossetia, and in other Caucasian Republics and also young Kazakhs and Kirghizs in Central Asiatic Republics took up the sport before the commencement of World War II.

After beginners have mastered the technique of mountaineering and have ascended one of the summits similar to Elbrus or Kazbek, they are awarded the badge ‘Mountaineer of the U.S.S.R.’ Dozens of thousands of citizens of the U.S.S.R. wear the badge.

On behalf of the Alpine section of the All-Union Physical Culture and Sports Committee I am happy to give this honorary badge to worthy members of the Alpine Club as a token of our friendship and deepest respect.

The pre-war years bear witness to a considerable rise in the standard of our mountaineering art. Our climbers not only mastered the technique of mountaineering but also creatively elaborated original methods of climbing, meeting the peculiarities of our towering systems. May I remind you that even at the altitudes of the High Caucasus, let alone the towering systems of Central Asia, the conditions in which we have to make ascents are much more severe than those in the Alps. Caucasian peaks with their mighty glaciers, comparatively higher altitudes and low temperatures require more systematic and longer assaults. But the fortresses fell one after another. The famous Caucasian summits have been systematically conquered by Soviet mountaineers. Siberians, the brothers Eugene and Vitaly Abalakov, Oleg Aristov, Nikolai Gusak, Eugene Ivanov, Alexei Japaridze and many other distinguished Soviet climbers have perfected their skill on these ascents.

Still more severe, as might be expected, proved to be the conditions in the Pamirs and Tien-Shan. Ascents of the summits reaching heights above 6,000 m., which belong in our country to a high-altitude class, have to be organised in the far-off and almost inaccessible regions of the U.S.S.R. Ascents of the peaks above 7,000 m. proved to be the most difficult; there are four peaks of this kind in the U.S.S.R.: Lenin peak (7,134 m.), Stalin peak (7,495 m.), Khan-Tengry peak (6,995 m.) and Korzhenevskaya peak (7,105 m.). But our start in this
field of climbing was a success. By 1937, Lenin, Stalin and Khan-Tengry peaks had been conquered. By the number of ascents of ‘seven-thousanders’ we took first place in the world, having left behind also your brother climbers.

For the truth’s sake it should be noted, however, that as a result of your wonderful victories of late years in the Himalayas we have lost our superiority. Still we hope that our competition in assaulting the highest peaks of the world will continue; this alone gives both sides every prospect of success.

The German invasion checked the development of mountaineering in the U.S.S.R. Many climbers took part in the battles against the enemy and defended the passes of the main Caucasian range. Fierce battles against the enemy’s alpine divisions took place where not long before Soviet mountaineers enjoyed their favourite sport. Our bases—Alpine camps and huts—were burnt down or blown-up by the enemy. Soon after the war, however, life came again on the mountains: mountaineering revived not only in the Caucasus but also in other mountainous districts of the U.S.S.R.

What is mountaineering like in our country at present? What are its organisational principles? Who goes in for climbing in the Soviet Union?

In the Soviet Union mountaineering is part of the general system of physical education aimed at meeting the requirements of the harmonious physical development of all the citizens of the U.S.S.R. Millions of people go in for sports in the Soviet Union. Track-and-field sections of the numerous sport societies number five million members; nearly one million sportsmen go in for gymnastics. Last year 18,690 football teams with 300,000 members participated in matches for the U.S.S.R. cup.

Numerical growth of mountaineering, however, cannot be compared with these figures. In our vast country, for the majority of the population, travel into the mountains entails considerable time and heavy travelling expenses. Nevertheless, at present over 20,000 alpine climbers go in for mountaineering in the Soviet Union, and their number is constantly rising.

Mountain travels are organised by the voluntary sports societies which consist of various sports sections. The traditional British club system was not established in our country. There are, however, two Alpine Clubs in Georgia and Kazakhstan which incorporate local climbers regardless of where they work or study. These clubs are contributing greatly to the development of local mountaineering.

In addition to the sportsmen’s care great support is rendered to physical culture by different public organisations and by the government. Many hundred millions of roubles of the state budget are allotted annually for the development of physical culture and sports.
Much money is spent on the development of mountaineering. The U.S.S.R. trade unions alone through their sport societies invest annually 12–15 million roubles into the development of cragsmanship. Much money is also allotted by other organisers of the sports movement. All this makes it possible systematically to subsidise not only special parties of climbers formed to establish new alpine records or expensive alpine expeditions on the Pamirs or Tien-Shan, but also, if need arise, to support the striving or relatively lower-paid categories of people for mountain travels.

Depending on their personal aspirations or plans our climbers can undertake any kind of travel they wish, including the so-called independent journey when lovers of the sport start for the mountains quite independently, having chosen their own route and peak to be climbed.

In mountainous Republics very popular with the amateurs are the ‘Alpiniads’ which draw in dozens and even hundreds of the beginners. On their joint travels they make one or several easy ascents; this kind of mountaineering enjoys great popularity among young peasants and students. But it is at the Alpine camps, most of which are formed by our voluntary sports societies, that the beginners get their training and learn the craft of mountaineering. These peculiar training centres, situated generally in picturesque valleys at the foot of the mountains, are used as the bases for mountain travels and ascents. At the beginning the training is carried out under daily supervision by skilled instructors who are picked out from those who arrive at the camp. There are neither professional climbers nor professional guides in our country.

There are twenty such alpine camps and most of them are situated on the northern slopes of the Caucasus.

Several years ago some more alpine camps were opened on the Zailisky Ala-Tau range (Tien-Shan), on the Alaisky and Gissarsky ranges (Pamirian foothills), and even in far-off Altai.

One can stay at a camp for twenty-four days. Our mountaineering people usually come there for their summer or winter holidays.

This flexible system of organisation of mountaineering makes it available for all, especially for the students and young workers. Thus in Leningrad at the Kirov (formerly Putilovsky) plant at which I work there is an alpine section which was organised more than twenty years ago. During all these years I have always had every opportunity to go on mountain travels including those to the most distant regions of the Pamirs.

People of different professions and social standing take up mountaineering in our country. Among the mountaineers who regularly come to the Caucasus one can meet with the prominent Soviet composer Lev Knipper or a poet and public figure such as Nikolai Tikhonov. For outstanding alpine ascents the title of Master of Sports of the
U.S.S.R. has recently been awarded, among others, to Igor Soloduev, the first violin of the Bolshoy Theatre orchestra, and to the famous geometer, rector of the Leningrad University, Alexander Alexandrov.

The honorary title of the Honoured Master of Sports of the U.S.S.R. has crowned the mountaineering achievements of Bekno Kherghioni, a peasant from Svanetia, of August Letavet, a member of the Academy of Science of the U.S.S.R., and of Professor Alexander Gusev, who in these very days at the head of the detachment is breaking trail into the heart of the Antarctic continent. It is not infrequently that the love for the mountains, and common sport interests and sport friendship unite miners and scientists, steel founders and engineers, rank-and-file workers and well-known academicians.

The state control over the sports as mentioned above is exercised through the local Physical Culture and Sports Committees. The All-Union Sports Committee directs the development of mountaineering, works out plans of ascents to be made, supervises training activities, and awards sports titles. The lovers of mountaineering also take part in these activities through the All-Union Alpine section.

Is there a necessity in regulating the sport of mountaineering? Our experience shows that the state control has told favourably on the development of mountaineering especially in the outlying districts of our country. Regulations providing for safety of ascents proved to be indispensable. Elimination of accidents on the mountains is the object of our constant care. Of great use are scientific methods of training beginners.

The standard of the mountaineering craft of any climber, as well as of any other sportsman, is assessed by means of the so-called qualification sports classes (i.e. third-class climber, second-class climber, etc.). The class to which this or that climber belongs is determined by the number of the ascents made and by the degree of their difficulty. The most outstanding sportsmen are awarded honorary titles of ' Master of Sports of the U.S.S.R.' or 'Honoured Master of Sports of the U.S.S.R.' The All-Union Physical Culture and Sports Committee, the supreme arbiter of annual mountaineering competitions, awards those climbers who achieve best results in a given year gold, silver or bronze medals.

These are the conditions under which mountaineering develops in our country. Its social prestige goes far beyond a comparatively narrow circle of sportsmen.

Mountaineering enjoys great popularity. Mountain-climbers are regarded by our people as their most courageous sons, as daring men, who become winners in the most dangerous encounters with the elements, who are united by a single common cause, by strong friendship, and by close comradeship. It is for these qualities that mountaineering is often christened 'the school for courage' in our country.
I may now be permitted to consider various mountain regions of the U.S.S.R. and to evaluate certain lines of routes which have become most popular.

The Caucasian system is generally preferred by both experienced climbers and beginners.

For the space of 1,500 km. of the main Caucasian range, in its spurs and parallel mountain ridges, in the Armenian volcanic upland, there are hundreds of most dangerous peaks, successfully ascended by Soviet climbers. The peaks of the main ridge between Fisht peak in the west, and the gorge of the Terek in the east, are especially favoured. Here the mountain relief of the Caucasian range acquires a distinguished Alpine character; there appear huge glaciers (those of the northern slopes are 15–20 km. long), the height of the ridges equals to 4,000–5,000 m. and more.

Climbers prefer to form their camps near the glaciers of the northern slopes of the main Caucasian range, at the river-heads. Well constructed high roads have been built in this part of the Caucasus within the last ten years. The glaciers of the main ridge, where the ascents start, are situated within a four or six hours’ drive by car from the main railway line or the airfields.

Soviet alpinism differentiates ascents according to the difficulties the climbers meet. The differentiation depends on the technical complications of the terrain, the altitude of the summit, and the duration of the ascent. A ten-point system of classification of routes has been worked out. The most difficult routes are marked as 5 and 5' categories.

Those who ascend a peak which is registered as 1' win the ‘Mountaineer of the U.S.S.R.’ sports badge. The ascents of Elbrus and Kazbek belong to the category of difficulties estimated as 2'.

Many thousands of Soviet mountaineers have climbed Elbrus. The photo shows that the ascent of the topmost summit of Europe from the upper reaches of the Baksan offers no technical difficulties worth mentioning. A climber, however, may start for the highest summits of Elbrus (5,595 m. and 5,633 m.) only after some training when he gets used to the thin mountain air. For this purpose a three-storey hotel has been built on the slopes of Elbrus at the altitude of 4,250 m. The hotel can well hold several dozens of climbers and is rather comfortable.

Among the most remarkable ascents of Elbrus, that made by 500 collective farmers of the Kabarda region, in 1935, is noteworthy. Climbing of Elbrus has retained widespread popularity; it is not by chance that the contour of the mountain is depicted on the ‘Mountaineer of the U.S.S.R.’ sports badge.

In winter the slopes of Elbrus are covered with ice, which makes the ascent much more difficult; but even then the summits of the mountain are frequented by hundreds of climbers.
Kazbek, 5,043 m., is another mountain greatly favoured by beginners. There are several routes leading to its summit from the Pass of Darial, so poetically described by Lermontov. To mark the thirtieth anniversary of Soviet alpinism 502 mountaineers ascended Kazbek.

Not long ago, in the sheer rocks of the south-eastern slopes of Kazbek, at the altitude of 4,100 m., a mountaineer collective farmer Sudzashvilt discovered the legendary cave of Betlemy, reflected in the Georgian epos. The cave is said to have served as the abode of some unknown hermit who could reach his shelter only with the help of an iron chain. The ancient chapel goes back to the eighth or ninth century A.D. All the belongings of the hermit, cloth including, are wonderfully preserved.

Soviet mountaineers perfect their skill along hundreds of most complicated routes, formerly unknown. Mountaineers of the West sometimes deviate from the line of route on purpose, in search of new routes and obstacles to overcome.

Certain mountaineers of the Alps are said to be of the opinion that the horizontal traverse of the walls of the Matterhorn, at a distance of 100 m. below its summit, is a matter of honour for every sportsman. I must state that Soviet mountaineers do not share this view, for our choice of possible new routes is immense. We are perfectly convinced that even the most difficult ascents of the highest peaks should be attained with minimum effort. The choice of the route should be logically justified; the safest and the most passable routes should be given preference. We hold that a better choice of the route testifies to the real skill and experience of a mountaineer.

The position we hold in no way hinders the tendency of introducing a variety of categories in climbing. We keep to the classical scheme: from the upper reaches of the glaciers to the topmost crest of the ridge and the summit, along walls and in traverses. This classification of technically complicated climbs of the Caucasus, however, calls for much skill in rock and ice climbing technique.

There is nothing new in Soviet climbing technique that we conceal from you, nothing that could be referred to as the 'secret weapon' of Soviet climbers.

The overcoming of difficult rocks is enabled by a variety of methods applied in mountaineering; it largely depends on the athletic training of the climbers, and on the skill they possess in making use of the micro-relief of the rocks. The climbers' rope is used not only as a safeguard, but as a means of facilitating the process of advance. During the ascent and descent of the whole party, in order to hasten the advance, we largely practise the method of horizontal and vertical rails and the method of descending by the rope in sitting position.
MOUNTAINEERING IN THE U.S.S.R.

When ascending steep ice slopes in small groups, step-cutting is not advisable. It is more rational to move on the front, shortened claws of the ten-clawed 'cats' (crampons). A light construction of iron corbels, or brackets, firmly fixing the foot to the shin, was introduced by Vitaly Abalakov, our well-known mountaineer. It proved to be serviceable. Steep and sheer parts of glaciers can be easily overcome with the help of two anchors, driven in by the climber ahead of himself. During the ascent the climber moves step by step, his feet fixed to two anchors on rope loops. As far as I know, our camping equipment is similar to that used by British climbers in analogous conditions. I believe, however, that our climbers, even in the Caucasus, organise bivouacs in snow caves more frequently than yours do. In cases of strong wind and bad weather the time and energy spent on passing the night are fully justified.

I may now be permitted to continue the description of certain routes in the Caucasus. For its relatively small altitudes and favourable relief Teberda has been turned into the school of Soviet rock-climbing. The school has many talented disciples, such as the Masters of Sports Nesterov, Volzhin, Kuzmin, Galustov, who are well known throughout the country. There is quite a number of talented young sportsmen as well.

The first ascent of Dombai-Ulgen peak along its crest was made as far back as the 'thirties; during the last ten years the ascents of its summits are usually made along its northern and western walls. The routes are estimated as those belonging to the highest category of difficulties, and require two to three days of strenuous climbing. After working for fourteen to sixteen hours at a stretch, the mountaineers are forced to bivouac on small ledges, fixing themselves to hooks with ropes.

The northern and southern peaks of Uzhba, the beauty of the Caucasus, 4,695 m. and 4,710 m., were conquered by the Soviet climbers twenty-five years ago. The ascents of its summits and their traverse belong to the highest category of difficulties, although these routes have been covered by dozens of groups of Soviet mountaineers. The exit to the topmost crest of northern Uzhba along the steep ice slope offers extreme difficulties; no easier is the route along the crest proper, or the task of overcoming the 100 m. sheer zone of the rocks nearing southern Uzhba. The traverse of both summits takes no less than four days, and in case of foul weather may even last a whole week.

Groups of Soviet mountaineers under Maleinov, Staritski and Marr succeeded in reaching the summits of Uzhba along the walls of the northern and south-western slopes, opening new routes of extreme complication. These routes are much to their credit, as they imply a
Ushba (Caucasus)
lot of hard work on rock, and are the shortest way to the summits of the mountain.

Climbers are well acquainted with the routes of the crest of Shkhelda peak, neighbouring Uzhba, as the traverse of all its summits from west to east and back has been made many a time. There have also been found the shortest routes to the eastern, central and western summits of Shkhelda along its northern walls. These routes rank among the most difficult. They are very rarely sunlit. Much depends on a correct estimate of the firmness of the rock and on the choice of the time of the day for advance.

During the last few years the best mountaineers are no longer satisfied with the difficulties offered by the seven- or ten-day traverse of the summits of Shkhelda, and they combine this traverse with other climbs. Several groups have simultaneously undertaken the traverse of the Shkhelda and Uzhba mountain-massifs, followed by the record traverse of Tshatyn–Uzhba, including the ascent of Tshatyn along its northern walls. The traverse was led by our prominent mountaineer Ivan Leonov.

A similar tendency to lengthen the routes may be observed in the district of the Peaks of the Central Caucasus, commonly known as the Bezinglyiski Wall. The first complete traverse of all its peaks, from Shkhara to Lyalvera, was made as early as 1938 under my guidance. It took us eighteen days to cover the whole route, eighteen days of extremely hard work in most unfavourable weather conditions. The traverse has been repeated by quite a number of parties.

In the course of the last few years our mountaineers have made the route along the Bezinglyiski Wall more complicated. They have included an ascent of the northern and southern slopes, and the route with a traverse in the direction of the neighbouring crest between Koshtan-tau (5,145 m.) and Dykh-tau (5,198 m.). Among such routes, the one undertaken under the guidance of Ivan Galustov is known to be the record. Galustov's party made a traverse of fifteen summits of the range, from Koshtan-tau, and further on to Shkhera, Aylama and Tsurungal. It took them thirty-one days to pass the whole route, a whole month of continual work at medium altitudes, ranging from 4,000 to 5,100 m. The participants in the ascent have rightly carried off the titles of All-Union Champions in the competition in traverses, and were justly awarded gold medals.

Our climbers have also performed a number of courageous exploits in wall ascents. The 'Spartak' team headed by Vitaly Abalakov has starred in this event, making a fine new route in 1954 along the eastern

2 The first complete traverse of the Bezingi Horseshoe from Shkhara to Lialver and the Zanner Pass was made by an Austrian party in 1931. See A.Z. 43. 400 and 49. 80.
wall of Dykh-tau peak. The exhausting and dangerous climb lasted for five days only—a period of time unheard of in wall ascents. The climbers claim that they have reached the limit of all possible human abilities.

I should like to point out certain peculiar features of such ascents. We never go mountaineering in ones, and very rarely in twos; we prefer to make difficult ascents, even wall ascents, in teams of four to six men or more, of which two or three are roped together. The inconveniences which result from the necessity of moving in relatively large parties are compensated by a greater chance of rendering mutual assistance and co-operation.

Food and fuel are delivered to points on the route of the traverse beforehand. With this aim in view the teams always choose the shortest route.

One may ask: What are the future prospects of mountaineering in the Caucasus, if most of its peaks have already been conquered?

The Caucasus will always attract Soviet mountaineers. In view of the fact that these routes are being repeated time and again, they have become the criterion of perfection attained by foremost Soviet mountaineers. Besides that, we are to face many other difficult tasks, aimed at making new routes to the peaks of the Caucasus.

I shall now pass to a general description of other mountain regions of our country, which have of late become places of mass mountaineering.

The slopes of the Zailyiski Ala-tau, adjacent to the district of Alma-Ata, capital of the Kazakh Republic, are those which enjoy the greatest popularity among other mountain districts of Central Asia.

Three mountaineers' camps have found shelter here, amidst gigantic blue fir-trees, in extremely picturesque passes, covered with rich Alpine pastures. These places are frequented by mountaineers of all parts of the country: from Central Asia, from Siberia, from the Urals, and even from the Western part of the U.S.S.R.

Much has changed in this peculiar land in the years of Soviet power. The car and the plane took the place of the sledge that had been used all the year round. Svanetian culture has made tremendous progress. The Svans are proud of their fellow-countrymen the Khergianies, a well-known family of Soviet mountaineers. None-the-less do they value Zarubiany, Honoured Master of Sports, and many other outstanding mountaineers of their people. I must say that they have every reason to do so.

Till recently the Altai was one of the most isolated mountain systems in the Asiatic part of the U.S.S.R., which stretches from the vast plain of Siberia to the Mongolian People's Republic. Only few well-equipped mountaineer parties were able to reach the Katun upper reaches, the district of snow-covered peaks of the Katun and Tshui...
Alps, the main peak of which is Belukha (4,620 m.). This peculiar mountain region became accessible to climbers only after the development of means of communication, for the path to it runs through the virgin taiga of Siberia. Several new routes to the summits of Belukha and to some other peaks of the Altai have been established by now. A camp for mountaineers has been founded in the upper reaches of the Katun.

Here are some data which may give a clear idea of the development of Soviet mountaineering and of the level of its sport achievement. As I have already mentioned, the total of mountaineers, belonging to various sports societies, amounts to 20,000 men and women. Annually more than 6,000 amateur mountaineers undergo profound training to be given the right to the 'Mountaineer of the U.S.S.R.' sports badge.

The number of ascents of peaks of various categories of difficulty increases year by year. Here are some data concerning the number of ascents of peaks, which belong to the fourth and the fifth categories of difficulty. These ascents were made in the U.S.S.R. within the last few years along the most difficult routes similar to those of the Caucasus.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Groups</th>
<th>Number of Mountaineers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>150</td>
<td>790</td>
</tr>
<tr>
<td>1954</td>
<td>256</td>
<td>1222</td>
</tr>
<tr>
<td>1955</td>
<td>413</td>
<td>1634</td>
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Allow me now to pass to the description of the most remarkable mountain regions of the Soviet Union, the Pamirs and the Tien-Shan, which are still largely regarded as regions of expeditionary mountaineering.

Even in the 'seventies of the last century, the Pamirs, as well as certain regions of the Himalayas, still remained one of the most unexplored parts of the globe; it was referred to as the third inaccessible pole. A British explorer, Captain Wood, succeeded in making a daring journey to the south-eastern spurs of the Pamirs in 1846. Captain Wood had crossed the mountain ranges of north-west India and Afghanistan, reached the riverhead of the ancient Oxus (the Amu Darya), found its source, and thus was the first man in the world of science to obtain actual data on the Pamirs, from time immemorial called by the people of Asia 'The Top of the World.'

The honour of the first exploration of the interior districts of the Pamirs lies with Russian scientists. In 1871 Fedchenko, advancing from the north, crossed the Alai range and discovered a vast chain of snow-covered summits, extending in latitude direction. This discovery was something quite new. It was the northern border of the Pamirs-Zaalaisky range with the topmost peak of 7,134 m. in height, which was named after the founder of our socialist state, Lenin.
Geographical discoveries by Fedchenko, as evaluated by the famous English geographer Yule, ushered in a new era in the exploration of Central Asia and made it possible to reject Gumbolt's theory about the existence of a mythical meridional Range Bolor. Other representatives of Russian science and daring explorers made their way towards the inland districts of the Pamirs across the passes of the Zaalaisky range, discovered by Fedchenko. But they failed to penetrate into the central districts of the Pamirs. It was Soviet geographers who did it with the direct assistance of alpine climbers.

In 1928 a well organised and unprecedented expedition was sent to the Pamirs. It was the first Pamir expedition of the Academy of Science of the U.S.S.R. Side by side with the group of German scientists and mountaineers, representatives of the first generation of Soviet climbers took part in it. They were the first to pass through to the upper reaches of the Fedchenko glacier and to find that it stretched for 72 km. Thus, Fedchenko glacier, discovered in the last century, proved to be the biggest glacier in the world for middle latitudes. New ranges and peaks of which science had been unaware were marked on the maps of the expedition; among those peaks was the topmost summit of 7,495 m. in height, which was given Stalin's name.

During subsequent years scientists, members of the Pamir expeditions of the Academy of Science, managed to explore some other districts of the Pamirs, to draw accurate maps of this country and to carry out geological and glacier observations.

The fruitful collaboration of Soviet mountaineers in the science in exploration of mountainous districts of our country (first and foremost it is true of the towering systems of the Pamirs and Tien-Shan) has been continued up till now.

Geographical observations by mountaineers are published in the Bulletin of the U.S.S.R. Geographical Society, in the annual Pobezhdennyye Vershiny, edited by Soviet mountaineers, in separate writing, from climbers' pens, which are willingly published by the Geographical publishing house and by other State publishing houses.

Early ascents of the high-altitude peaks in the Pamirs were attempted by the Soviet climbers in 1929. The previous year the German climbers from the Pamir expedition of the U.S.S.R. Academy of Science, Allwein, Wien, and Schneider, had climbed Lenin peak at the cost of being badly frost-bitten. A group of Soviet climbers headed by Krylenko, the well-known explorer of the Pamirs, attempted an ascent by the route from the south. The ascent failed owing to errors in the choice of place for the last bivouac and to the lack of experience in arranging ascents of such summits. As a result acclimatisation of most of the members of the party was quite insufficient.
The first serious attempts of the Soviet explorers to penetrate into the mysterious central region of the Tien-Shan also dates back to the early 'thirties. For the first time this area of the 'Heavenly Mounts' was explored by the famous Russian geographer Semenov-Tien-Shansky during his travels in 1856–7. He spoke about majestic ranges of the central Tien-Shan, crowned with a snow-white pointed pyramid of the peak, which seemed to him to be twice as high as the other summits. That was Khan-Tengry peak, which had been considered the highest peak of the Tien-Shan range until Pobeda peak was explored.

In 1903, after a number of unsuccessful attempts, a German traveller and mountaineer Merzbacher, reached the foot of Khan-Tengry. He drew up a geographical sketch of the ranges of the Central Tien-Shan which, it is true, proved to be far from perfect. The results of the attempts on this region by some Russian and foreign explorers were also incomplete.

Central districts of the Tien Shan, like the Pamirs, were explored by Soviet scientists. Here again the mountaineers were their first assistants. They had opened up routes to the foot of Khan-Tengry, to the upper reaches of the mighty glacier Inylchek, which in our country is inferior in length (57 km.) only to the Fedchenko glacier.

An important role in the exploration of the Khan-Tengry region was played by the Ukranian mountaineers headed by Pogrebetsky, one of the oldest climbers in the U.S.S.R. Since 1929 expeditions under his command had collected still more data about the high-altitude district in the upper reaches of Inylchek glacier. In 1931 Pogrebetsky and his companions attempted an assault on Khan-Tengry. The peak was conquered at the cost of exceptional efforts by the climbers. They started the assault without having acclimatised themselves beforehand and they suffered greatly from mountain sickness. Worn out by a difficult ascent they reached the summit on the fifth day after they had started from camp at 6,040 m.

Such was the experience of Alpine ascents by the Soviet climbers when they undertook the task of climbing 'seven-thousanders' of this country and, in the first place, of climbing Stalin peak, the highest point of our territory.

I should like briefly to describe our highest summits and peculiarities which should be taken into consideration when organising ascents on the Pamirs or Tien-Shan.

High-altitude summits in our country are situated at a considerable distance away from the railway, airfields and settlements. Nowadays several well-built highways run across the Pamirs and Tien-Shan, but still to reach the foot of the highest summits one is forced to solve a complicated task of organising pack caravans and of transporting loads. Such transportation operations take much time, strength, and money.
Khan-Tengri (Tien Shan).
It suffices to point out that it took our expeditions from thirty-five to sixty days to reach the foot of Stalin peak.

When organising transportation of loads we do not consider it rational in our conditions to follow the example of the Himalayan expeditions and to transfer loads with the help of hired weight-carriers.

We solve the problem by combining the efforts of the mountaineers themselves and where possible we employ pack animals or aviation.

Examination of photographs shows that Stalin, Lenin, Khan-Tengry and Pobeda peaks are not necessarily connected with considerable technical difficulties. The ascent of Lenin peak is the easiest of all. Technical difficulties of the ascent of this summit do not go beyond traversing steep snow- and ice-covered slopes which in some parts require use of crampons or ice-axes.

A little more difficult technically are the slopes of Pobeda peak and Korzhenevskaya peak.

Still more difficult were the ascents of Stalin peak from the east and of Khan-Tengry peak. Mountaineers are faced here with the necessity of difficult rock-climbing.

High altitudes and low temperatures are the chief obstacles in ascending the Pamirs and Tien-Shan.

Of course, ascents on the Pamirs and Tien-Shan are less difficult in respect of altitude than those in Central Asia, the highest summits of our towering systems being 1,000 to 1,500 m. lower than the Himalayan giants.

But in our conditions also success may be counted upon provided the mountaineers have been well trained to endure oxygen lack. Excessive height makes it impossible for us to set up camps at altitudes above 4,000-4,400 m. After all this preliminary work has been done, the duration of an assault on the summit will take from seven to fifteen days.

I should like to draw attention to the fact that we have never resorted to oxygen equipment, that is why the problem of acclimatisation is of such great importance.

The towering systems of the Pamirs and Tien-Shan run at high altitudes and therefore even in most favourable summer months we should be ready to stand low temperatures up to 35 degrees below zero, with cold winds and bad weather. Most unfavourable in this respect is the region of Khan-Tengry and Pobeda peaks; towards the close of each day cloudless and windy weather usually gives way to snow storms.

It is in these conditions that the Soviet mountaineers had to start solving most difficult problems of ascending the 'seven-thousanders' of our country. We could not follow blindly after foreign and, among them, after British mountaineers for all their attempts on the highest Himalayan peaks, Everest included, ended invariably in failure at that time.
Pic Lenin (Pamirs).
The ascent of Stalin peak was the first important trial. It was effected in 1933 by a special alpine detachment of a regular Pamir expedition of the Academy of Science of the U.S.S.R. under the direct supervision of academician Gorbunov.

Having set up an alpine camp at the upper reaches of Bivuachnyj glacier the climbers began breaking a trail by the eastern ridge of the peak. As a result of a month's toil and at the cost of tremendous efforts they managed to cross six formidable gendarmes on the ridge and to set up intermediate camps there. The dangerous job at high altitudes cost two climbers their lives and the rest grew weaker. None-the-less, at the end of August Gorbunov and his five companions made a determined assault on the peak. Only three of them reached the highest camp at 6,900 m. They had to stay there for two days because of a snow-storm.

Only two of them, Gorbunov and his young companion Eugene Abalakov were able to continue the ascent. By noon they reached the crest of Stalin peak. It was Abalakov alone who was able to climb on by the knife-edge ice crest and ice-covered rocks. By the close of the day he reached the highest point and then together with his companions descended safely to the main camp.

That was the only case when a responsible high altitude ascent was effected by Soviet climbers in a party of two. Taking into account the Stalin peak experience we have never risked the success of an ascent and the safety of mountaineers, which is inevitable for so small a number of climbers, who have not got any real opportunity to help each other. And, indeed, by its nature mountaineering is not a sport of individuals joining in a single combat against the summits. It is only a mighty and collective fight that can count on victory.

All the subsequent ascents of the 'seven-thousanders' of the Soviet Union have been made by considerably larger parties of climbers from five to twelve in number.

But it does not mean that since the ascent of Stalin peak in 1933 everything has gone smoothly in our alpine mountaineering. There were quite a number of failures and sometimes even defeats, but with every passing year we have been growing in experience and now we have a right to formulate fundamental principles of the Soviet tactics of the high-altitude ascents.

The preparation for these ascents makes it its aim to set up a base camp to be situated as close to the base of the summit as possible, an exploration of a variety of routes with the selection of one of them, and the preparation of intermediate camps to be passed by the assault detachment. We attach special importance to the thorough examination of the route and for this purpose we draw in some of the members of the main group. We often make use of aviation to photograph the
ridges in profile. The transference of loads to the highest altitude possible is carried out by pack horses and mules. In many cases it is worth while building a trail on a glacier. In such cases we would manage to have our packs brought as far as points at a distance of 35–40 km. from Fedchenko and Inylchek glaciers.

In a number of alpine expeditions transportation work was carried out by air. The stores of some expeditions have been successfully carried by transport planes and dropped at base camps. On one of the ascents of Lenin peak they managed to parachute loads onto the snow-covered slopes of the peak not far from camps at heights of 5,200 and 6,200 m.

We have not yet at our disposal a scientifically-grounded system of the acclimatisation of mountaineering, but our experience makes it possible to draw the following conclusions.

High-altitude acclimatisation is achieved by a gradual ascent to an ever-increasing height, followed by a descent. When climbing 'seven-thousanders' it is necessary in our opinion to make at least two acclimatisation ascents, the last one being to a height not less than 1,000 m. from the summit. Acclimatisation ascents should go in turn with the descents and short halts at the base camp.

The organisers of a number of Himalayan expeditions have admitted the necessity of the acclimatisation climbs to be made by the participants of the forthcoming ascent and think that on these climbs it is preferable by all means to spare the climbers' strength by drawing in as many additional climbers and weight-carriers as possible. We do not consider such practice the best. Our experience shows that it is only in conditions similar to those of the assault that acclimatisation becomes effective enough. That is why sparing the future participants of the ascent the job of weight-carrying in the period of their acclimatisation delays the acclimatisation and does not train the assault party in the best way. High-altitude acclimatisation should be active, but care should be taken against overstrain.

The equipment we use on our high-altitude expeditions is similar to what you use in the Himalayas. When making alpine boots and clothing we sometimes use furs or eiderdown. As our transportation work is rather hard our bivouacs are less comfortable. The assortment of foodstuffs however is more diverse; whenever possible we prefer to provide for fresh food rather than tinned.

A short review of the most important high-altitude ascents will enable us to sum up our achievements in this class of sporting mountaineering in the U.S.S.R.

Stalin peak after the ascent in 1933 was assailed once again by the original route in 1937. This time five mountaineers reached the summit.

During the post-war years the exploration of new routes to Stalin
peak was started in particular from the west by the Garmo glacier. Last year mountaineers of the Georgian Alpine Club succeeded in climbing the south shoulder of Stalin peak and thence four of them reached the summit.

An extremely complicated task remains unsolved: the ascent of Stalin peak from the North-west face by the Pamir plateau.

Lenin peak (7,134 m.) was conquered by Soviet climbers in 1934, this time from the north by the route explored by Krylenko on one of his Pamir travels. Since then four more ascents of the highest summit of the Zaalaysky range have been effected. In all, thirty-five Soviet mountaineers have reached the summit. A highway runs close to Lenin peak, which is of a considerable use when arranging ascents, its slopes presenting good training facilities.

Korzhenevskaya peak (7,105 m.) the third 'seven-thousander' in height, was conquered only in 1953, preceded by two unsuccessful attempts undertaken in the pre-war years. Korzhenevskaya peak is fifteen kilometres away from Stalin peak. The approach from the only possible direction by the Muxsu valley is rather difficult and this prevents us from the exploration of new routes to this interesting summit.

The peak of Pobeda (7,439 m.) was opened up and mapped in 1943 and named so in honour of the remarkable victory won by the anti-fascist coalition. There were several unsuccessful attempts on this peak. The assaults on the summit were made without sufficient preparation and the climbers were forced to retreat. The highest altitude they managed to reach was some 7,000 m.

From all the outstanding ascents by the Soviet mountaineers many more climbs are worth mentioning: three ascents on Khan-Tengry peak, undertaken in different years, ascents in the Pamirs of Revolution peak (6,995 m.), Garmo peak (6,615 m.), Patkhor peak (6,052 m.), the highest summit of the Ruzhansky range, Karl Marx peak (6,800 m.) and Engels peak (6,400 m.) in the Shakh-Darjynsky range.

Since 1931 the Soviet mountaineers have made thirty-six ascents of the summits above 6,000 m. in height. Out of 213 participants of these ascents fifty-three climbers have conquered summits over 7,000 m. above sea level.

A few words about the future.

We Soviet mountaineers face boundless opportunity. We are sure that mountaineering in our country will draw in new followers and that every one of them will be given a real opportunity to make fascinating journeys among the mountains of the beautiful and ever-youthful Caucasus, on the boundless spaces of Central Asia, on picturesque Altai, and on other mountain ranges of our immense motherland.

Leaning on the activities of thousands of mountaineers we shall
improve their art of mountaineering both on virgin summits and on classic routes.

And, finally, we are going to continue our activities in the field of the high-altitude ascents. This year our climbers will undertake several ascents of Pobeda peak, the only unconquered 'seven-thousander' of the Soviet Union. We have also accepted the proposal of the mountaineers of the Chinese People's Republic to undertake a joint ascent of the Kashgarsky range. Our goal will be the famous Muztag-Ata, 'Father of Icy Peaks,' whose highest point has not yet been reached.

We are sure that our collaboration with our friends from China will be fruitful. On our first joint travels we found in them good friends, modest, industrious and persistent.

May I wish you all success in carrying on the glorious traditions of the Alpine Club and that all your most daring plans be realised?