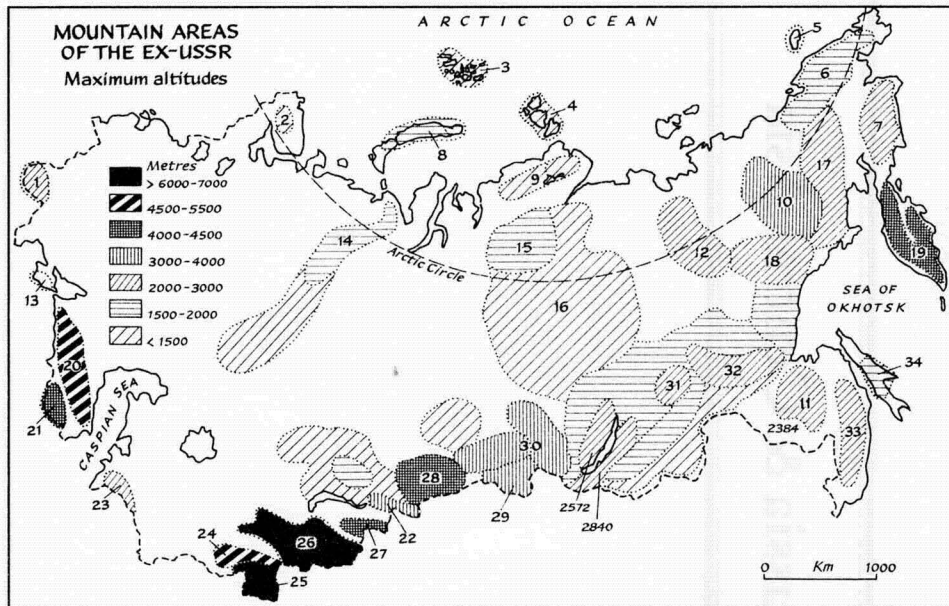

Russia & Central Asia

- 1 Carpathians. Mt Goverla, 2061m
- 2 Khibins, 1191m
- 3 Franz Josef Land, 620m
- 4 North Land, 965m
- 5 Wrangel Island, 1096m
- 6 Chukotskoye Nagor'ye, 1843m
- 7 Koryakskoye Nagor'ye.
Mt Ledynaya, 2562m
- 8 Novaya Zemlya, 1547m
- 9 Gory Byrranga, 1146m
- 10 Khrebet Cherskiy. Mt Pobeda, 3147m
- 11 Khrebet Bureinskiy, 2384m
- 12 Orulgan, 2389m
- 13 Crimea. Mt Roman-Kosh, 1545m
- 14 Ural Mountains. Mt Narodnaya, 1895m
- 15 Gory Putorana. Mt Kamen, 1664m
- 16 Sredne - Sibirskoye Ploskogor'ye
- 17 Kolymskoye Nagor'ye, 2889m
- 18 Khrebet Suntar Khayata.
Mt Mushhaya, 2959m
- 19 Kamchatka
Mt Klyuchevskaya Sopka, 4750m
- 20 Caucasus. Mt Elbrus, 5642m
- 21 Armyanskoe Nagor'ye. Mt Aragats, 4090m
- 22 Saur. Mt Mustau, 3816m
- 23 Kopetdag Mountains, 2912m
- 24 Gissar-Alai. Pik Piramidalniy, 5621m
- 25 Pamir. Pik Kommunizma, 7495m
- 26 Tien Shan. Pik Pobeda, 7439m
- 27 Dzhungarskiy Alatau. Mt Besbaskan, 4442m



- 28 Altai. Mt Belukha, 4506m
- 29 Tuvinskoye Nagor'ye. Mt Mongun-Taiga, 3970m
- 30 Western & Eastern Sayan Mountains
Mt Munku-Sardyk, 3491m

- 31 Kodar, 2999m
- 32 Stanovoy Range, 2412m
- 33 Sikhote Alin Range, 2077m
- 34 Sakhalin, 1609m

YEVGENIY GIPPENREITER

Mountain Ranges of the Ex-USSR

This article, which is based on a lecture I gave at the Alpine Club Symposium in November 1994, will review the main mountain ranges of the ex-USSR and provide some information on existing opportunities for those who are interested in making ascents or carrying out adventure expeditions to some of the long-forbidden areas of Russia and its former Republics. The Caucasus, the subject of a previous Symposium, will be included in this overview.

There are many mountain ranges, systems, uplands and mountainous lands within the ex-USSR, and great variety in structure and natural characteristics. The total area of these ranges amounts to six million square kilometres, which is three times larger than the Himalaya, Karakoram and Kun Lun mountains put together.

The highest mountain regions of the ex-USSR are in Kyrgyzstan, Tajikistan, Uzbekistan and Kazakhstan – the territory in Central Asia which Alexander Solzhenitsyn called ‘the underbelly’ of Russia. I will also describe the mountains of Russia itself, especially of Siberia which holds a mysterious allure for Westerners to this day and not without reason: shut off until the early 1990s for political and military reasons, this territory offers very little in the way of modern communications but a lot in the area of adventure travel.

I will not dwell on the mountains of the Arctic and Sub-Arctic, (for instance Franz Josef Land, the Taymyr Peninsula or Wrangel Island) because they are of interest to skiers rather than to mountaineers; I will only mention that it is possible to go heli-skiing in the Khibin mountains (1190m) of the Kolskiy peninsula beyond the Arctic Circle and ski touring in the Carpathians in the west of the country.

The Great Game

For nearly a century Britain and Russia conducted a secret war in the lonely passes, mountains and deserts of Central Asia, calling it ‘The Great Game’. When it began, in 1819, the two rival empires lay nearly 2000 miles apart. By the end, in 1907, Russian outposts had spread to within 20 miles of India. Peter Hopkirk’s book¹ *The Great Game* tells the story with consummate skill and knowledge, recounting the exploits of many British and Russian officers who risked their lives playing it. Disguised as holy men or native horsetraders, they mapped secret passes, gathered intelligence and sought the allegiance of powerful khans. Some never returned, like the

ill-fated Captain Conolly and Colonel Stoddart, beheaded in 1842 on the order of the notorious Emir Nasrullah of Bokhara.

I will mention only two more names, those of General Konstantin Kaufman (1818-82), first Governor-General of Turkestan, and architect of Russia's conquests in Central Asia, after whom one of the seventhousanders of the Pamirs was named. Pik Kaufman (7134m), was first climbed in 1928 by three German members of a Russo-German expedition. Later it was named Pik Lenin and its second ascent was made in 1934 by a Soviet party led by V Abalakov. The other name worth mentioning is that of Francis Younghusband who visited the Pamirs several times and led the expedition to Lhasa in 1904. This was the last major move by either side in the Great Game, which ended with the signing of the historic Anglo-Russian Convention in St Petersburg in 1907.

With the collapse of the Soviet regime, the newly independent Central Asian republics became involved in a new 'Great Game'. Not only are some Russian names being expunged from the map, including some peaks, but many people of Russian origin are leaving these countries to escape from local nationalism. There have been ongoing border skirmishes, sporadic activity within the mountains, and even local wars. It is difficult to forecast how things will work out in these Muslim Republics. However, in spite of that, it is quite possible for foreigners, who bring in much-coveted hard currency, to visit them. Despite numerous complications and difficulties, especially in Tajikistan where, at the time of writing, there is a war going on between the present regime and its opposition, the torrent of climbers and trekkers continued throughout 1994. Altogether about 400 foreign visitors came to the Central Asian mountains during the year. The safest, most popular and stable area was the Central Tien Shan, but the arrangements and services offered by some small local firms provoked much criticism. I advise against being tempted by lower prices and to trust only firms with wide experience and a high reputation.

The Caucasus

The Caucasus is a mountain range running from the Black Sea in the west to the Caspian Sea in the east. It forms a boundary between Europe and Asia and is divided into three sections: western, central and eastern.

The Western Caucasus begins as a low ridge at the mouth of the Don river and gradually rises to mountains of an Alpine character, with Mt Dombai-Ulgen (4046m) as its highest summit. The climate here is warmer and climbing conditions are less stern than in other sections of the Caucasus. The area of greatest interest for mountaineers is the section between the Marukh and Khlukhor passes where there are plenty of established routes and one can make lots of hard ascents (especially up north faces) and traverses.

The Central Caucasus rises between Mt Elbrus and Mt Kazbek and is the highest and most attractive part of the entire range. All the five-

thousanders of the Caucasus are located here, together with many of its 2047 glaciers including the biggest one – the 12.8km-long Bezingi glacier. The most popular summits belong to the Elbrus area (Ushba, Shkhelda Towers, Chatyn-Tau, Donguzorun, Nakra-Tau, Jantugan and others) and the Bezingi Wall area (Koshtantau, Shkhara, Jangi-Tau, Dykh-Tau and others).

Mt Elbrus is of particular interest for two reasons: first, because the Western summit (5642m) is officially recognised as Europe's highest mountain (Russia now being part of Europe) and, second, because it ranks as one of the seven highest points of the Seven Continents.

The Eastern Caucasus stretches from Mt Kazbek eastwards up to the Apsheron peninsula. It is about 480km long and is lower, overall, than the Central Caucasus, though more than 30 of its summits rise above 4000m. There are several ridges here, the main one being Bokovoi Khrebet ('lateral ridge') with Mt Tebulosmta (4493m) as its highest. The terrain is characterised by tangled labyrinths of strongly dissected ridges and deep gorges. There are flat-topped summits (the Yarudag massif) and pyramidal summits (Mt Babakudag, 3997m) and also jagged peaks of black schists. The area is rarely visited either by Russian or Western mountaineers, who evidently prefer the peaks of the Central Caucasus.

The Eastern Caucasus includes the Dagestan mountains (70 graded routes, rock and mixed) which were visited in 1992 by a joint British-Ukrainian party a hundred years after the range was first climbed by Merzbacher. Paul Knott wrote about this expedition in the 1993 *Alpine Journal*.²

Altogether there are more than 1500 graded routes in the Caucasus, from I to VI. Although political events still restrict access to some regions, Westerners, unlike in the past, now have great opportunities for climbing, skiing and trekking. The Caucasus is well described in five recent books, details of which will be found in the Bibliography on page 121.

The Pamirs

The Pamirs are the highest upland in the ex-USSR. Roughly rectangular in shape, they are 280km long from north to south and about 420km from west to east, totalling 90,000 square kilometres. The Pamirs are located mainly in Tajikistan, the northern slopes of the Trans-Alai stretching to Kyrgyzstan, and its southern and eastern outskirts continuing to Afghanistan and China. Its natural borders are the Trans-Alai ridge, with **Pik Lenin (7134m)** and the valleys of the Kyzyl-Su and Surkhob rivers to the north, the Sarykol ridge to the east, the Pamir and Pyandzh rivers to the south and again the Pyandzh river and western spurs of the Darvaz and Peter the First ranges to the west.

The Pamirs are divided in two halves by naturally occurring mountain features. **The Eastern Pamirs** are a mountainous upland of Tibetan type, with broad flat high-altitude deserts at 3500 to 4500m. Above these are

sloping ridges, such as the Muzkol ridge, reaching heights of about 6000m. Most of the year they are covered with snow and ice. **The Western Pamirs** are characterised by deep gorges, rough rivers and high ridges averaging 5000-6000m and above. Normally they are covered with snow and glaciers.

The Pamir ridges run predominantly west-east and include: the Trans-Alai ridge with Pik Lenin (7134m) as its highest summit, Peter the First ridge with Pik Moskva (6785m), Darvaz ridge with Pik Arnavad (6083m), Vanch ridge and Yazgulem ridge with Pik Revolutsii (6974m), Muzkol ridge with Pik Sovetskih Ofitserov (6233m), Shakhdar ridge with Pik Karl Marx (6723m) and many others. There are also ridges here that run meridionally: Ishkashim ridge, Academy of Sciences ridge with Pik Kommunizma (7495m), Zulumart ridge, Sarykol ridge and others.

The snowline rises from 3860m in the west to 5240m in the east. Nowadays glaciation covers 11% of the Pamirs' territory. There are more than 7000 glaciers here, the main ones being the Fedchenko glacier (77km long), Grumm-Grzhimailo (about 37km), Garmo (30km), Bolshoi Saukara (25km) and others. Some of the glaciers are advancing and others are retreating in a ratio of about 50:50.

The Pamirs are a real paradise – an 'Elysium' for mountaineers and trekkers. **The North-Western Pamirs** is the district preferred by climbers because it contains three of the four seventhousanders of the ex-USSR, 110 of the 135 sixthousanders (see tables on pages 124 to 130), endless summits over 5000m and lots of unclimbed routes. There are over 600 classified routes here, mainly of mixed character, from grades 2 to 6.

The region was first opened to Western climbers, on an occasional basis, in the 1960s. For instance, there was a British-Soviet Expedition to Pik Kommunizma in 1962 and international meets at the foot of Pik Lenin. Then, in the 1970s, the region was opened on a more permanent basis when the first International Mountaineering Camp was established at Achik-Tash on the northern side of Pik Lenin. Further camps were opened on the Fortambek glacier for tackling Pik Kommunizma and on the Moskvina glacier for Pik Evgenii Korzhenevskoi.

The optimal period for climbing in this region is July-August, though Russian climbers have made winter ascents, usually in February, since the mid-1970s.

The Pamir-Alai Mountains

To the south of the Fergana depression and the eastern part of the Kyzylkum desert there lies another high-altitude mountain region called the Pamir-Alai.

It consists of three parts: the northern part is called **Gissar-Alai**, or Kukhistan in Tajik language. Its main ranges are the Alai, Gissar, Zeravshan, Turkestan and Karategin. There are hundreds of 5000-5500m summits here and many big glaciers, including the Zeravshan glacier, particularly in its central part called the Match Mountain Knot. This

mountain system is 700km long. It has been comparatively little explored by geographers and climbers, with the exception of the **Fansky mountains** – the highest part of the Zeravshan ridge – with 11 summits above 5000m. The highest peaks are Chimtarga (5487m), Bodhana (5138m), Miraly (5120m) and Energia (5105m). The area is about 50km east of Samarkand and offers excellent Alpine-style rock routes of medium grades. Doug Scott led an expedition here in 1992.³

Two newly opened up areas in Turkestan are the **Laylak and Karavshin valleys**, with wonderful summits (including Pik Piramidalniy, 5510m) and most interesting routes. Here there are lots of possibilities for first ascents of steep granite faces up to grade 6A, resembling face ascents in the Karakoram (Trango), Patagonia, Chamonix, or El Capitan in Yosemite.

The Pamir-Alai range has turned out to be such an interesting playground for hard new rock climbs in the 5-6 grade that one could call it a 'Klondike' for mountaineers. The 'gold rush' was confirmed when some of the ascents made here in the summer of 1993 were declared to be the best in the CIS and Russian Championships: for instance the first ascent of Pik Slesov (4240m) via the 800m face, the E face of Pik 4810m, the N face of Ak-Su and others. Having learned of such opportunities some Western climbers – French, Spanish, Italian and British – rushed to the area and made several excellent first ascents up the granite towers. For instance, a British team, Ivan Green and Adrian Williams, climbed a 1000m route on the W face of Mt Asan in the **Kara-su/Ak-su** region. I would particularly recommend this region to high-grade rock-climbers. But it is a good idea to carry out preliminary reconnaissance before undertaking full-scale attempts.

The Tien Shan Mountains

Tien Shan, a Chinese name meaning 'Celestial Mountains', is a great mountain system located mainly in western Kyrgyzstan and in eastern China. Its northern and furthest western ranges are located in Kazakhstan, whereas its south-west extremity reaches the bounds of Uzbekistan and Tajikistan. Within the ex-USSR territory, it stretches in an arc more than 1200km long and 300km wide. It is bordered to the north by the Ili valley and the Fergana depression to the south, while to the east of the latter it joins the Alai ridge of the Pamir-Alai system.

All the chains and ridges of the Tien Shan, except the meridional one, run west-east and consist of four separate areas separated by natural features: The Central Tien Shan, the Northern Tien Shan, the Western Tien Shan and the Inner Tien Shan. The northern slopes of the ridges are cut by 2000-4000m deep gorges of mountain rivers 50-70km long. Its southern slopes are less dissected and the river valleys are shorter and shallower. The predominant height of summits in the Tien Shan is 4000-5000m and passes range between heights of 3500-4500m. The climate is typically Central Asian and precipitation becomes heavier with altitude –

up to 900-1000mm a year on the western slopes of the Fergana valley, whereas rainfall in the Inner Tien Shan is only 150-250mm.

The Tien Shan is well glaciated: it has 7787 glaciers, the biggest one being the South Inylchek glacier, 60km long. It has several ranges: Trans-Ali Alatau, Inylchek, Kyrgyz, Kokshaal-Too, Tengri-Tag, Terskei-Ala-Too, Talass Ala-Tau, Fergana and others.

Tien Shan's highest summit is **Pik Pobeda (7439m)**, discovered in 1943, the most northerly seventhousander on Earth. When climbing it one should bear in mind that periods of utterly bad weather with heavy frosts, snow storms and avalanches can occur, so that snow caves are the best means of survival.

Not far from Pik Pobeda rises **Khan Tengri (6995m)**, 'Lord of the Sky', a gigantic pyramid, first climbed in 1936. Both of these summits are very popular with Russian and now Western climbers. There have been a number of reports in the ex-Soviet and foreign press that the true height of Khan Tengri is 7010m, whereas on all the earlier maps its altitude was given as 6995m. It was only in 1973, when the newspaper *Pravda* reported that some climbers had registered a height of 7010m on their aneroid barometer, that certain geographical atlases started being amended. Since such a method of establishing exact measurements is notoriously unreliable, Vladimir Shataev, State Coach in Mountaineering, and myself prefer to retain the long-accepted height of 6995m, which was also endorsed by Jill Neate in her authoritative book *High Asia* (The Mountaineers 1989).

Khan Tengri offers about 18 routes to its summit, including new ones up the formidable N face from the North Inylchek glacier. Some of them were completed in 1974, 1987, 1988 and 1993 when the teams were awarded first prizes in the Russian High Altitude Class Championships. Recently Khan Tengri became an object of competitions in speed ascents organised by the Mountaineering Federation of Kyrgyzstan. The second one took place on 16-19 August 1993. The route length was 19km with an altitude gain of 3500m. 10 out of 18 participants reached the summit. The winner, with a record time of 10 hours and 8 minutes, was mountain guide Alex Lowe (USA). The most recent competition took place in August 1994.

Of the three principal mountain ranges of the ex-USSR the Tien Shan is the biggest. It has more than 900 graded routes and also the largest number of visitors. The highest and most interesting section is the central one where its two highest peaks are to be found. Another interesting natural feature is the **Merzbacher glacier**. It was named after a German professor who explored the Central Tien Shan in 1903, including the South and North Inylchek glaciers and **Issyk-kul lake**.* This enormous reservoir of slightly salty water is located at 1608m and is 702m deep. It is extraordinarily beautiful owing to the intense dark blue and blue-green colours of its water and the picturesque ring of snow-covered ranges surrounding it.

The first British party to probe one of the corners of this range in Kazakhstan was the Eagle Ski Club Tien Shan expedition in 1988. Their

* See 'The Search for Khan Tengri', pages 131-139.

experience of winter mountaineering, including ski mountaineering, in Zailiyskiy Alatau, with peaks up to 5000m, was described by Stephen Goodwin, in the 1989 *Alpine Journal*.⁴ In 1991 Khan Tengri received its first British ascent, by Rick Allen, Shaun Smith and Simon Yates. This was followed in July-August by the second British/first New Zealand ascent of Khan Tengri and the first British/New Zealand ascent of Pobeda described by Julie-Ann Clyma in the 1992 *Alpine Journal*.⁵

The most suitable time of year for climbing Piks Pobeda and Khan Tengri is between 10 July and 20 August. An average commercial tour would last 30 days but could be shorter if climbers were to arrive fit and acclimatised. For climbers who wish to climb both peaks, 40 days would be a realistic time scale. It is also possible to trek in the region, for instance to the largest glaciers of the Central Tien Shan. Such a trek would probably last for about 17 days.

The Altai Mountains

A major mountain system, the Altai mountains lie at the junction of Russia (South Siberia), China and Mongolia. They form a watershed for the Ob, Irtysh, Enisei and other big rivers of Central Asia. The two major parts of it are Gornyi Altai, which lies in the modern Russian autonomous region of the same name, and Rudnyi Altai, its SW part located mainly in the East-Kazakh region.

The relief of **Gornyi Altai** is typically Alpine. It is a system of dozens of extremely rugged ridges running in different directions, narrow and deep river ravines, separate plateaux and hollows called 'steppes'. Its central part is the highest and most difficult of access, with altitudes up to 3500-4000m. There are two main ranges: the North range which includes the North-Chuyski and Terektinski ridges; and the South range which includes the South-Chuyski ridge and the Katun ridge, with Belukha (4506m) the highest summit of the entire Altai. This region has big glaciers, very picturesque mountain lakes, fine forests, rich flora and many climbed and unclimbed routes on rock, ice and mixed.

Rudnyi Altai is a region of medium altitude mountain ridges of about 2000m, covered with forests. The climate here is sharply Continental, with long winters and cool summers. The best time for trekking is from mid-May to mid-October and for climbing from mid-June to mid-September. Rugged terrain and rough rivers make it difficult of access but an attractive area for trekking and rafting.

The Altai has 117 classified routes graded from 1B to 5A and 15-day trekking tours are available in the land of taiga forests and beautiful lakes. There are also 20-day programmes which include the ascent of **Mt Belukha**, the highest summit not only of the Altai but also of Siberia, followed by trekking or rafting down the Katun river. It is possible to make ascents of many other mountains in the area. There is also a wealth of opportunities for white water rafting and boating, and for using catamarans on rivers and

lakes. But one should bear in mind that there are only a few roads and paths in the Altai, so tours to this region are not easy. Visitors usually come to Barnaul by plane and continue by helicopter.

For a long time the Altai mountains were inaccessible for Westerners. The first Briton to visit them since 1903 was John Town who led a party in 1984. In an article in the 1985 *Alpine Journal*, he described the ascent of Mt Belukha by the normal route and gave a review of the exploration of this mountain system and a useful bibliography.⁶ Impressions of the region were also given by Duncan Tunstall, a member of the 1988 British Altai expedition, in the 1989 *Alpine Journal*.⁷

The Sayan Mountains

This mountain region of Southern Siberia is bigger than the Great Caucasus or the Altai. It is divided into two branches – the West Sayan and the East Sayan. The **West Sayan** is 600km long with sharp ridges of 2500-3000m above sea level. Its highest summit is Kyzyl-Taiga (3121m). It joins the Altai mountains at its western end and runs NE to the central part of the East Sayan. It has steep slopes, heavily cut ridges and vast stone fields. There are five classified routes of grades 1 and 2 which were nearly all climbed in 1977.

The **East Sayan** starts with a system of flat-topped ridges that slope up gradually to the south-east, forming ranges called 'Belogoriy' and 'Belki' ('white'), deriving their name from snow patches seen at most times of the year. The summits here reach heights of nearly 3000m (Pik Grandioznyi, Pik Triangulatorov and others). Then the East Sayan slopes down and becomes flat-topped, and then again it changes to high-altitude terrain when turning to the south with Pik Topografov (3044m) and Munky-Sardyk (3491m). Its highest point was reached for the first time by G Radde, a geographer, in 1868. The East Sayan mountains give many more opportunities for climbers: there are 58 classified routes, grades 1-5, mainly on rock. I was a member of our 1969 expedition, led by V Abalakov, to evaluate and grade the local climbing routes. Many of them were ascended later, mainly in the 1970s and 1980s.

The climate here is typically Continental, with long severe winters and cool summers. The Sayans have about 100 small glaciers, many lakes and several rivers. They are covered with forests of cedar, pitch-pine, larch, elder and birch, with tracts of rhododendrons, and there are Scots pine in the lower, drier parts of the valleys. The slopes and some summits are thickly carpeted with lichens and mosses but in general the local flora is not rich, with comparatively few varieties of flowers, edelweiss among them.

The Sayans were closed to foreigners for many years but were popular with local trekkers who used to go mainly to the East Sayan starting from either Irkutsk or Krasnoyarsk. It is now possible for Westerners to visit the region and there are organised adventure and cycling tours, rafting and rock climbing. '**Krasnoyarski Stolbi**' ('pillars')⁸ located in the spurs of

East Sayan, is a National Park not far from the town of Krasnoyarsk which is famous as a centre for rock climbing. It contains about 80 separate groups of granite spires 100m-150m high. The careers of some of the most famous climbers of the ex-USSR, like the Abalakov brothers, began here. The most suitable time to visit the area is mid-May to mid-September.

It is also possible to climb on the **Baikal ridge** running along the NW coast of **Lake Baikal**, its highest summit being Pik Cherskiy (2572m), a grade 2 rock route first climbed in 1975. Trekking is also possible, together with rafting and boat trips along the lake.

The Cherskiy Range

This is a huge mountain system, named after I D Cherskiy, a Russian explorer of Siberia. The Cherskiy range is located in the Yakutia and Magadan regions. It is 1500km long and 400km wide and consists of two independent chains, Bilibin and Obruchev, separated by a Momo-Selenyakhskaya vpadina ('a hollow') and the Indigirka river valley. The **Obruchev chain** consists of two mountain areas: NW and SE. The south-eastern area has a ridge, Ulakhan-Chistai, 250km long with Mt Pobeda (3147m) which is the highest summit of the entire Cherskiy range and was climbed for the first time only in 1977. Four summits in this range have been classified according to difficulty (from 2A to 5A) and these are included in the Official Classification Table of routes to the mountain summits of the ex-USSR.

This whole range is extremely rarely visited by Russian parties and even more rarely by foreigners. Only one British party has climbed there so far – an expedition led by Paul Knott in 1994 and described in this volume.⁹

Kamchatka

The Kamchatka Peninsula is a remote area in the far east of Russia which was only recently opened to Western climbers and trekkers. It protrudes into the Pacific and is washed by the waters of the Sea of Okhotsk on the west and by the Bering Sea on the east. The Peninsula is 1200km long and up to 450km wide. A narrow neck of land (only 100km wide at the northern end) connects it to the Asian continent. Its eastern coast has many big and small bays: Zaliv Korfa, Ozernyi, Kronotskiy, Kamchatskiy and others, whereas the western coast is rather even.

The central part of the Peninsula is crossed by two main ridges stretching submeridionally: the **Sredinnyi ridge** along its western side and the **Eastern ridge**, with the central Kamchatskaya lowland between them. The Peninsula boasts only two gravel motor roads, so the main means of transportation are helicopters and small planes.

Kamchatka has a very specific landscape because there are more than 180 volcanoes here, 28 of them active including the highest one, Klyuchevskaya Sopka (4750m). It started to erupt at the end of July 1993 thus preventing us, a party of Austrian and Russian mountaineers, from climbing it. However, we were fully compensated by the thrilling sight of an

enormous eruption just above our Base Camp, with periodic peals of thunder, eruptions that launched huge red-hot stones high into the sky, and streams of lava which turned the snow and ice into clouds of steam and covered everything with a black layer of ash. It was a fantastic display of the elements of Nature. (See also *John Town, pages 153-160 in this volume.*)

Kamchatka is rich in mineral thermal springs and geysers. The climate here is rather rigorous but typically maritime. The rainfall is about 600-1100mm per year, the air is humid, the weather cloudy with strong winds. This cool and humid climate, together with its mountainous relief, contributes to the development of Kamchatka's glaciers: there are more than 400 of them, some up to 16km long, and many lakes. Hidden in one of the deep canyons of the Kronotsky biosphere preserve is the famous **Valley of Geysers** which can be reached only by helicopter and only for foreign currency (the access to it is severely restricted).

The best time to visit Kamchatka is July, August and early September. The peninsula offers opportunities to make ascents of volcanoes by mixed routes. There are 38 routes graded 1B to 4B, and also trekking, rafting, hunting, and fishing the famous red fishes (salmon and other species), delicious and full of roe, from which local people quickly prepare pans of red caviare to entertain guests.

At present it is not possible to organise expeditions to the Verkhoyanskiy range, the Chukotskoe Nagorye (upland) and some other mountain areas in the extreme NE of Russia. These are almost totally unexplored, very difficult of access and of only limited interest for mountaineers. However other exotic tours are available: trekking and rafting in Karelia, visits to Bokhara and Samarkand in Central Asia, visits to Sikhote-Alin in the Far East, and travels to the archipelago of Severnaya Zemlya (North Land) including (for a mere US\$6000) a visit to the North Pole.

For rock-climbing fans there are the granite Krasnoyarski Stolbi in Siberia, mentioned earlier, and Crimean limestone cliffs along the Black Sea coast where rock-climbing competitions are held, and for speleologists there are the caves of the Alek massif near Sochi.

Two British parties, Marian Elmes and others, one in April-May 1992,¹⁰ carried out ski-mountaineering expeditions to the sub-polar Urals, the latter ascending most of the summits that bound the Parnul valley. In the opinion of its members, the mountains here resemble the Cairngorms and there is plenty of scope for winter exploration of this wilderness on skis.

To carry out an expedition to any of the areas of the ex-USSR it is necessary to obtain an invitation; without one, the embassy will not issue a visa. To conclude, owing to political changes and *glasnost* there are now immense opportunities for Western climbers and trekkers in Russia and its former Republics. So seize your chance while you can!

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