



ROUTES
FROM
RUSSIAN TERRITORY IN CENTRAL ASIA
TOWARDS
AFGHANISTAN AND INDIA.

SECTION II.—THE KABUL LINE OF ADVANCE.

PART I.

MILITARY REPORT ON RUSSIAN TURKISTAN AND THE KHANATE OF
BOKHARA, BEING THE COUNTRY TRAVERSED BY THE
ROUTES IN PART II.

PART II.

ROUTES LEADING FROM THE KAZALINSK-CHIMKEND POSTAL
ROAD ON TO THE OXUS BETWEEN CHARJUI
AND KALA-I-KHUM.

COMPILED

IN THE

INTELLIGENCE BRANCH OF THE QUARTER MASTER GENERAL'S DEPART-
MENT IN INDIA.

BY

LIEUTENANT E. PEACH,

STAFF LIEUTENANT, INTELLIGENCE BRANCH.



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**CUSTODY AND DISPOSAL OF SECRET BOOKS, REPORTS, &C., ISSUED BY THE
INTELLIGENCE BRANCH, QUARTER MASTER GENERAL'S DEPT. IN INDIA.**

— 0 —

The attention of His Excellency the Commander-in-Chief having been called to the want of system in the custody, use, and disposal of secret works, &c. His Excellency desires that in future the following regulations may be strictly adhered to:—

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Place and date. Signature.....
Signature of receiving officer.....

In the case of officers of the District Staff, these reports must be sent through the G. O. C.

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- (d) Personal or complimentary issues of secret works will be held by the recipient until his departure from India, when the secret matter will be returned to the Intelligence Branch for safe custody, or special permission obtained for its retention.

ARMY HEAD QUARTERS ; }
 Simla, 1st October 1891. }

JAMES BROWNE, *Major-General,*
Quarter Master General in India.

PREFACE.

THE routes in Part II of this section include all those leading from the Kazalinsk-Chimkend post road on to the Oxus between Charjui and Kala-i-Khum. A general description of them will be found under the heading of "Main lines of advance and communications" (Chapter III). This is the central or Kabul line of advance, from the main bases of Bokhara and Samarkand, and would most probably now be the line followed by the main columns in case of a Russian advance on Afghanistan and India, as the concentration on and passage of the Oxus would be covered by columns advancing along the roads treated in Section III and also by a demonstration from the Pamirs by the roads shown in Section I. A short consideration of this part of the subject will be found in the Note on the strategic position generally in Chapter V.

The Routes naturally divide themselves into two main divisions of lines of advance with the lateral communications between them respectively, as follows:—

- I. Routes leading from the primary base line Kazalinsk-Chimkend-Tashkend to the secondary and more important line of bases Charjui, Bokhara, and Samarkand. (Nos. 1 to 20.)
- II. Routes from this line on to the Oxus between Bosaga and Kala-i-Khum. (Nos. 20 to 84.)

Route No. 1, and Nos. 18 to 24 are communications between Bases.

The numbering of routes has been carried out with reference to the chief towns or points from which they radiate, commencing from Kazalinsk and working south and east.

There is an Alphabetical cross-index at the end of the book and an *index map*, in the pocket, giving the position and number of every route described in the text. The map affords the quickest way of finding any particular route required.

A full description of the internal administrative division of the country will be found in Chapter II.

Between Samarkand and the Oxus so many different combinations of routes are possible that it has been thought best to give short routes first, (Nos. 30 to 45) and

then to show the most important combinations afterwards (Nos. 46 to 49 and 52 to 54).

In order to give completeness, the principal roads leading from the various ferries over the Oxus, across the Chol in Northern Afghanistan to the main objectives of Mazar-i-Sharif, Tashkurgan, Kunduz and Faizabad in Badakhshan, have been included, and short descriptions of them given, sufficient to afford data for all practical calculations as to time, distance, &c., without having to refer to another book. For fuller details of these routes the reader is referred to the Afghan Boundary Commission Routes, Turkistan and Kabul Series.

The spelling of names is based chiefly on the method adopted in the Russian Route Map of 1893.

Information not available at time of compilation has now been added, *vide* notes at foot of pages and Appendix "A" describing the organization of the new Customs Department in Central Asia.

INTELLIGENCE BRANCH,

Q. M. G.'S DEPT.

SIMLA;	}	E. F. H. McSWINEY, <i>Captain</i> ,
<i>The 1st October 1894.</i>		D. A. Q. M. G.

G. H. MORE-MOLYNEUX, *Colonel*,

A. Q. M. G.

AUTHORITIES CONSULTED.

The following is a list of the principal authorities consulted in compiling these Routes and the Military Report accompanying them :—

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PART II.—ROUTES.

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PART I.
MILITARY REPORT.

CHAPTER I.

GENERAL DESCRIPTION OF THE COUNTRY THROUGH WHICH THE ROUTES PASS.

(a) GENERAL GEOGRAPHY AND TOPOGRAPHY.

The portion of Russian territory in Central Asia, within which all the routes described in Part II of this Section are to be found, is bounded on the north by the Syr Daria river, and postal road accompanying it, from Kazalinsk to Chimkend; on the east by the continuation of this road from Chimkend to Tashkend and Khojend, by the eastern boundary of the Samarkand province terminating in the Zarafshan glacier, and a line from thence running south through Garm to Kala-i-Khum on the Oxus; on the south the boundary is formed by the Amu Daria river, and on the west by the Khivan Oasis and Aral Sea.*

The country included within these boundaries is divided into three distinct portions *viz.*:—

1. *The Syr Daria Province, including the Amu Daria section.*
2. *The Samarkand Province.*
3. *The Khanate of Bokhara.*

Of these, the first two are Russian Provinces; the other, a still nominally independent State under the protection of Russia. Each of these main divisions will be found considered separately later in the chapter on "Military and Administrative Divisions" and again under "Resources." The object at present is to give, as shortly as possible, a clear idea of the geographical and topographical conditions of the whole tract under consideration.

Geographically the whole country may be divided into two equal in size and characteristically extremely different parts, the *North-Western* or larger, and the *South-Eastern* or smaller part.

The *North-Western* part, which includes the Amu Daria section, nearly the whole of the Syr Daria Province, and a large portion of the Khanate of Bokhara, is practically an immense waterless desert, generally flat, and lying very little above sea level, in places even below it. Between the Amu and Syr Daria rivers stretch the vast Kizil Kum sands, and in fact the only fertile and habitable spots to be found in all this region are the narrow strips along the banks of the two great rivers, the small area of irrigated soil forming the inhabited portion of the Amu Daria section near the mouth of the Amu river, and parts of the Kazalinsk district.

The deserts of Central Asia are not, however, everywhere absolutely uncultivable; portions along the Syr and Yani Daria rivers, for instance, are merely waste steppe lands, which, under the influence of artificial irrigation, might easily be converted into flourishing oases. Nevertheless

* NOTE—The division therefore between the routes considered in sections I and II, is to be found in a line drawn almost due south from the town of Chimkend to Kala-i-Khum on the Oxus: the Amu Daria from the Aral Sea to Bosga forms the boundary between the routes in Sections II and III.

such portions are of rare occurrence, and by far the greater part consists of completely unreclaimable sand and salt-impregnated desert plains intersected by low rocky ridges of marble, limestone, and slate hills, in which, on the Kizil Kum, traces of iron are often met with, giving the reddish tinge to which possibly the Kizil Kum or "red sand" owes its name. Vegetation, where not entirely absent, is limited to the hardy saxaul and a few other shrubs useful for fuel, and forage for camels. A few herbs of the ferulaceous order are also found, and, in the salt wastes, a little bitter grass.

The banks of the rivers, lakes, and marshes are thickly overgrown with reeds and sedge, sheltering tigers, wild boars, and a certain amount of game generally.

The worst parts of the desert are those covered by shifting sands. In such parts no permanent track is possible, and wells are filled up almost as soon as dug. The fine sand is drifted in all directions by the slightest breeze and, in hurricanes, which in these open expanses are of frequent occurrence, sand-dunes (Barkhani) of from 30 to 40 feet in height are piled up like the waves of a great sea, and caravans, cattle and everything unfortunate enough to be overtaken by one of these storms is liable to be swallowed up and buried in them. In winter, when snow rises with the sands, the picture is even more terrible, for then intense cold is added to the other sufferings peculiar to these phenomena, and the whirling masses of mixed snow and sand are said to be so thick as to darken even the light of the sun, and people and cattle have been known to perish within a few yards of the doors of their dwellings.

Salt wastes
(Solonchaks).

Amongst the salt wastes are to be distinguished the wet and the dry. The former remain an impassable swamp at all seasons of the year, the latter are either "*sors*," the surface of which is light and friable, or "*takirs*" in which the ground is hard as brick. Both these latter, even after slight rain, turn into thick and deep mud and present a formidable obstacle to movement over them.

The Kizil Kum desert is nevertheless crossed by a large number of caravan tracks, and numerous wells exist, while water is often obtainable by digging. In the winter months the Kirghiz nomadize freely over the sandy portions where saxaul is obtainable for fuel and scanty forage and pasture for their flocks. But in no part could any considerable body of troops be moved without enormous difficulties direct across the space intervening between the Kazalinsk-Chimkend post road and the Amu Daria river.

Climate.

The climate of this part of the country is distinguished by great heat in summer and intense cold in winter. The desert generally is constantly extending itself to the southward under the influence of the north and north-easterly winds, which blow almost continuously.

The South-
Eastern por-
tion.

The south-eastern and much smaller part of the country, consisting of the Samarkand province, part of the Syr Daria province, and the greater portion of the Khanate of Bokhara, is occupied by lofty mountain ranges and their branches and off-shoots. The climate is here more temperate, and the country in many parts well-watered by the numerous rivers and streams which take their rise in the snows and glaciers of the mountain chains. Among the latter, therefore, are found many fertile and beautiful valleys where luxuriant vegetation fringes the rivers flowing through them, and rich pasture clothes the lower slopes and spurs

of the hills. On the level also irrigation is made possible by the greater abundance of water, and hence we find in the lower portion of the Syr Daria Province (where Tashkend, the capital, and several other flourishing towns and settlements are situated), and in the valley of the Zarafshan river in the Samarkand province, perhaps the most fertile and prosperous portion of all Russian Central Asia. The valley of the Zarafshan or "gold-bearing" river, though of less extent, surpasses in fertility even the far-famed Ferghana Province, and Russian colonists are busy improving the country about Tashkend and Chimkend comprising the fertile valleys of the Aris, Chirchik, Keles and Angren rivers.

More particular descriptions of all these valleys and also of the fertile portions of Bokhara will be found in Chapter IV (Resources).

(b) MOUNTAIN RANGES.

Near the Zarafshan glacier, situated in the western continuation of the Alai mountains, is the meeting place of three great ranges running thence to the west. These are the chief ranges of the Samarkand Province and Khanate of Bokhara, and, though known to the natives by various names in different parts of their length, they are in reality the continuation and termination, in this direction, of the great Thian Shan mountain system and are named by the latest Russian geographers as follows:—

That on the north is called the *Turkistan* range, that in the centre the *Zarafshan*, and that on the south the *Hissar* range. Between the Turkistan and Zarafshan ranges flows the river Zarafshan in the long narrow valley of the same name, and between those of Turkistan and Hissar is the still narrower Yagnab valley.

The *Turkistan* range forms the water-parting of the Syr and Zarafshan river basins, and near the Kishlak* of Urmitan divides into two branches, the southern of which, called Chumkar, runs on in the general (western) direction of the main range towards Panjkend, while the northern strikes off to the north-west towards Jizak, and separates the Samarkand from the Syr Daria Province. This branch, as far as the Jelan-ut defile (called also the gates of Tamerlane) near Jizak, through which the main Samarkand-Tashkend post road passes, is called *Marguzar* and beyond this *Nura-Tau*; neither of these branches is of any considerable height. The length of the main range is about 187 miles and for about half this distance, starting from the Zarafshan glacier, is above the eternal snow line, the passes being very difficult and ranging from 10,000 to 14,000 feet. The northern slopes are long and easy and in places reach the Syr Daria. They are covered with juniper woods and pasture. The southern slopes are precipitous and bare. The *Nura-Tau* mountains are about 133 miles in length and partake of the general characteristics of the Kizil Kum desert ridges, but they are of great value as forming a barrier against the southern encroachment of the sands on to the Zarafshan valley.

The *Zarafshan* mountains run parallel to the *Turkistan* and their total length is about 200 miles. They are covered with snow from their commencement at the glacier up to the river Voru, and terminate near Jam in some heights of not more than 2,000 feet.

* Kishlak means literally a wintering place of the nomads, but is commonly used in Central Asia for a settlement or village.

The Hissar mountains.

The Hissar range being in the more direct continuation of the Thian-Shan, attains to a considerably greater elevation than the two ranges above described, and forms the main chain of the country. Starting like the others from the Zarafshan glacier its general direction is south-west, and, on approaching the town of Guzar, it splits up into innumerable branches spreading in all directions, and forming the mountainous country between Guzar and Karatagh, while its spurs and underfeatures stretch south to the Amu basin. Opposite to Kelif they run right down to the river bank.

The length of the main range is over 230 miles, and the greater part of it is above the snow line, the height averaging from 16,000 to 18,000 feet. Towards the Zarafshan glacier it is even more. The chief passes are the *Pakshif* and *Mura*. The former is described in Section I of these routes, while a description of the latter will be found in Route No. 63, which passes over it from Varziminor on the Zarafshan river, *via* Lake Iskander Kul to the town of Hissar.

Off-shoots of the Hissar range.

Near the source of the river Voru the Hissar range throws off a branch to the north-east called *Dukdan*, which covers the space between the Voru and Iskander Daria rivers. In this chain is the peak of Chabdara, 18,300 feet high. To the north three other branches are given off, which, surrounding Lake Iskander Kul, form the mountainous region of Magian serving at the same time as the watershed of the left tributaries of the Zarafshan.

The Hazrat-i-Sultan mountains.

Between the Kishlaks of Magian and Urgut is a group of mountains called Hazrat-i-Sultan. This group enjoys among the natives a great reputation founded on the legend that a holy man, Hazrat-i-Sultan Khwaja Daour, took refuge here and still lives in the mountains. To the west of the Hazrat-i-Sultan mountains is situated the Shahr-i-Sabz* valley containing the birth-place of Tamerlane.

The Hissar range forms the boundary between the Russian dominions and Bokhara.

General characteristics of the three main ranges.

The northern slopes of all these ranges (the Turkistan, Zarafshan and Hissar) are generally long and easy and covered with vegetation, the southern being steep and bare. In the valleys which intersect them are found juniper and larch woods, and, in the neighbourhood of Lake Iskander Kul, also birch; but timber trees, though formerly plentiful, are now almost entirely exhausted.

Wild animals.

The animal kingdom is represented by bears, wolves, foxes, martens and, more rarely, leopards. Near Fan (Sarvada) and Farab are found alum, sulphur, iron ore, and coal, and in the upper waters of the Zarafshan a little gold. Lead is found in the Koh-i-tan hills in Bokhara.

Minerals.

Smaller ranges of the country.

There still remains to consider the country lying to the south of the Hissar mountains between these and the Amu Daria, to the east of the Surkhan river. Here are situated all the most important affluents of the Amu Daria flowing down from the Hissar, Alai, and Peter the Great mountains. This part of the country is in this way intersected by four large streams, the Surkhan, Kafirnihan, Surkh-Ab or Waksh, and Aksu, which run nearly parallel to one another, the course being from north-east to south-west, turning more to the south as the main channel of the Oxus is reached. These rivers are separated by fairly high but not generally difficult ranges of hills as follows; between the Surkhan and Kafirnihan are the *Baba-Tagh* mountains running

* Spelt Sharshauz in the Russian Route map.

north and south, between the Kafirnihan and Surkh-Ab the *Gazi-Malik* and several smaller ranges, continuations of the *Karategin* mountains. To the east again the country is covered by the off-shoots of the *Peter the Great* range.

(c) WATERING OF THE COUNTRY.

Hydrography.

There is perhaps no place in the whole world where the question of the water-supply is of such vital importance to the inhabitants as in Central Asia, where there is hardly a single acre of level ground to be found anywhere on which crops can be raised without the aid of artificial irrigation. Even along the banks of the rivers and streams fertility is restricted to the narrowest limits unless extended by networks of canals carrying the water over the surrounding country, and a constant struggle has to be carried on against the ever encroaching sands of the desert. The pasture on the steppes (where it exists) is soon burnt up and rendered valueless by the scorching rays of the sun, and it is only in the valleys and ravines of the mountains and at heights above 5,000 or 6,000 feet that vegetation, unsupported by artificial means, is to be met with after the commencement of the hot summer.

On the other hand, under the influence of irrigation the soil in many parts becomes extraordinarily fruitful and yields the most abundant harvests, luxuriant vegetation springing up in an incredibly short space of time.

The two great rivers of Central Asia, the Syr and Amu Daria, flow north-west through the region we are considering, and the whole of the country is watered by them and their tributaries. The lower course of both (in the north-western portion of the country) is through deserts which, save for a narrow strip along their banks and the Khivan oasis and Amu Daria sections formed by the Amu near its mouth, they are unable to fertilize. Both receive nearly all their tributaries in the south-eastern portion, which, as already noticed, is consequently, comparatively well-watered and fertile.

Navigation, both on the Syr and Amu Daria, is difficult owing to the numerous and shifting channels in which they flow and the sands obstructing their course. The flotilla on the Syr has even been altogether done away with, owing partly to this cause, and partly also to the fact that in consequence of the absence of inhabited points along the banks in the navigable portion, a line of steamers (now no longer required for military purposes) does not pay. On the Amu Daria the Government keeps up two fairly large steamers and two barges, which are called the "Amu Daria flotilla"* and which ply between Petro-Alexandrovsck and Kerki; the *raison-d'être* of these is chiefly military.

Along the Syr Daria the soil in many parts is loam and suitable for cultivation if irrigated, and the sands generally encroach on this river less than in the case of the Amu, but irrigation is dependent on the overflow of the river which in its lower course and especially about Kazalinsk does not always take place, the result then being equivalent to a drought. On the tributaries of the Syr in the

* NOTE.—For full particulars regarding this flotilla, see Section III of these routes.

south-eastern and eastern portion of the country the Russians have lately established 47 colonies of Russian peasants. The length of the Syr in Turkistan is about 1,133 miles.

Tributaries
of the Syr
Daria.

The chief tributaries which the Syr receives in the portion of country we are considering are the *Aris*, *Keles*, *Chirchik* and *Angren*, all on the right bank. The three latter flow through three fertile valleys which, before reaching the Syr, merge into general steppe country, at the commencement of which Tashkend is situated. The Chirchik and Keles—with the three great canals *Boss-su*, *Zakh-arik*, and *Gadregan*, led off from the former,—water the town and district of Tashkend.

Kurama
Oasis.

The country rendered fertile by the three streams above-mentioned, is sometimes called the *Kurama Oasis*. The bulk of the inhabitants are Kuramins, and the mountains to the south are called the Kurama mountains.

The *Aris* with its tributaries, the *Boroldai* and *Badam*, and the river *Bugun* (which loses itself in the sands before reaching the Syr), fertilize the country about Chimkend.

There are no fords over either the Syr or Amu Daria in their course within the country under consideration, the crossing being effected either in ferry boats (Kayaks) or on inflated skins (Gupsars). The Syr Daria is bridged at Chinaz and Khojend, the Amu only by the famous railway bridge at Charjui.

The principal ferries across the Amu between Bosaga and Kala-i-Khum are Kelif, Chushka-Guzar, Patta-Hissar, Khisht-Tapa and Aivaj, Kunda-Guzar, and Samti. These will be found described in the Routes and still more fully in A. B. C. Routes, Turkistan Series.*

Tributaries
of the Amu
Daria.

The chief tributaries of the Amu Daria are the Surkh-Ab or Waksh river, the Kafirnihan, Surkhan and Zarafshan. The latter being all used up in irrigation does not reach the river, but loses itself in the sands near the town of Kara Kul, south-west of Bokhara, where it forms at certain seasons of the year the marshy swamps of Sungar and Tengiz Kul. The Surkh-Ab, Kafirnihan and Surkhan rivers are in Bokharan territory, the two latter flowing down from the Hissar mountains, the other from the Alai. The course of all three is at first through mountain country, and they are all rapid, shallow, and un-navigable, but lower down they form broad valleys which open out on to the general plain of the Oxus, and in these valleys are situated some of the most important towns of Bokhara, and a good deal of grain is grown. The Surkh-Ab or Waksh river is bridged at Sari-pul near Garm (the capital of Karategin) and is not fordable below that place. The crossing is usually effected on inflated skins.

River
Zarafshan.

The river Zarafshan issues from the glacier of the same name. It flows at first through mountainous country in an extraordinarily narrow gorge, in which the water foams and swirls almost like a waterfall. It is only on reaching the town of Panjkend, that the channel begins to widen and the water to calm. Even here, however, the current is very rapid (over 5 miles an hour). From Panjkend it begins to be possible to float timber down to Samarkand and Bokhara.

Five miles above Samarkand the river divides into two parts; the northern called *Ak-Daria*, and the southern *Kara-Daria*. These two streams, distant from 7 to 12 miles from one another, join again on the very borders of Russian territory near the Bokharan settlement.

* The Russian Route Map of 1893 shews also a ferry at Kakul.

of Khatireba. The ground thus left by the parting of the waters of the Zarafshan forms an island, which is called "*Miankal*" or "*the Miankala valley*," which is the most fertile portion of the whole Zarafshan valley. From the town of Kermine the Zarafshan flows south-west, and from Bokhara its course is through a sandy waste, where it ends in a small desert lake called Kara Kul; this lake is really nothing but the overflow of the river. The town of Bokhara is watered by a large canal "*Shahr-i-rud*," led off from the Zarafshan. Across this in various places are 12 stone bridges or culverts.

The total length of the Zarafshan is over 400 miles, and in Russian territory 296 miles. It is shallow, and its bed is full of large rocks, and can therefore be forded easily in places, but it is not navigable anywhere.

The floods of the Zarafshan take place in the end of March (1st floods), the beginning of June (2nd floods), and in September (3rd floods).

On its right bank it receives water from about 50 subsidiary streamlets, and on the left from its chief tributaries the *Ian-daria* (formed from the confluence of the *Yaguab-daria* and *Iskander-daria*), *Magian-daria*, and the rivers *Toru* and *Shink* flowing out of lake Marguzar. Tributaries
of the Zaraf-
shan.

(d) POPULATION AND ETHNOGRAPHY.

The statistics given in the following pages regarding the population and races of Russian Turkistan and the Khanate of Bokhara are taken almost entirely from Russian sources and are the latest available; but although they nearly all presume to emanate from official sources the authorities often differ and their figures can hardly be said to be altogether reliable. In Colonel Kostenko's work on Turkistan we have statistics of population in Central Asia in considerable detail, and these have been amplified and corrected by the Honourable G. Curzon (1889). The latest figures arrived at by Mr. Curzon have been given in this work for purposes of comparison with later figures. Turkistan and Bokhara are considered separately. Very little accurate information is available regarding the population and ethnography of the latter place.

(i) RUSSIAN TURKISTAN.

Just in the same manner as the Turkistan country divides itself geographically into the north-western or desert portion and south-eastern or cultivated portion, so also the population may be divided into "*Nomad*" in the north-western and "*Sedentary*" in the south-eastern portion. The desert and steppe lands of Turkistan which constitute as much as $\frac{2}{3}$ ths of the total area, are peopled by nomads, but as they are very thinly populated (about 4 persons to the square mile, English), we find that out of the total population of about 3 millions,* less than $\frac{1}{3}$ rd are nomad Kirghiz, the remaining $\frac{2}{3}$ rds leading a settled life in the oases, mostly in the south-eastern part of the country.†

The principal races of Turkistan, their distribution over the country, numbers, and mode of life whether settled or nomad, will best be seen from the following sketch of the ethnography of the country, though the races have now so merged into one another, and their origin in many cases is so shrouded in mystery, that statistics can only be considered

* For other authorities on the total population, see page 9.
Turkistan Gazette, 1893.

approximate. For fuller details the reader is referred to *Kostenko* and the *Gazetteer of Western Turkistan*, though much of the information contained in these is also necessarily very inaccurate and obsolete.

Ethnography.

Tajiks and
Galchas.

In Central Asia in general and that part of it now called Russian Turkistan in particular, from ancient times, many nations have ruled and passed away, leaving more or less distinct traces of their occupation. The most ancient inhabitants, of whom any considerable numbers still remain in the country, are the *Tajiks* and the mountain *Tajiks* or *Galchas*. The *Tajiks* are all settlers and are of Iranian origin and still speak Persian. They are found chiefly in the Angren and Chirchik valleys, the towns of Khojend and Ura Tapa, and in Ferghana. The *Galchas* inhabit the Upper Zarafshan valley (Kohistan.) They are very few in number now, and themselves claim to be descended from the ancient Greeks who came with Alexander of Macedon. They are very poor and in a low state of civilization. The *Tajiks* and *Galchas* together number about 300,000. The former are engaged principally in trade and agriculture, the latter entirely in agriculture and cattle-breeding. Both are Mussalmans of the Sunni sect.

Uzbegs.

The *Uzbegs* in the country are estimated at 350,000, distributed in the Zarafshan valley, Khojend district, and Ferghana Province. They are divided into different tribes, the number of which is variously estimated at from 32 to 96. They are both nomads and settlers, the latter, in the towns and *Kishlaks* being distinguished from the *Tajiks* only by their language. The nomad *Uzbegs* are also called *Kirghiz*, and their chief occupation is cattle and sheep-rearing.

Sarts.

The *Uzbegs*, exercising a powerful influence on the *Tajiks*, have turned a large number of the latter into an *Uzbek*-speaking race, which has acquired the name of *Sarts*. These form, now, the largest section of the settled population of Turkistan, their numbers being estimated at as much as 650,000. They are found in all the towns and only in towns, and their occupation is trade and agriculture. Tashkend, Kokand, Margilan, Namangan, and Andijan are the principal *Sart* towns.

Other settled inhabitants found in the country, but in less numbers, are the following:—

Kuramins,—78,000.—Agriculturalists in the Tashkend district.

Karakalpaks (black-caps), 76,000.—In the Amu Daria section, part of the Kazalinsk district, and in the Ferghana Province. They are corn-growers, very poor, and in a low state of development.

Turks (5,500) and *Kipchaks* (5,500).—In Ferghana.

Persians (3 000) and *Arabs* (3,000).—In the Samarkand province.

Turkomans, 7,500.—In the Amu-Daria section.

Dunganis, 16,000.—In the Syr Daria and Ferghana provinces, and, scattered throughout the towns, *Tatars* (16,000), *Jews* (6,500) and *Hindus* (about 1,000).

Russians.

The last race to come into the country were the *Russians*. These at present, including the troops, number about 110,000.

Kirghiz.

The nomad *Kirghiz* and *Kara-Kirghiz* wander all over the deserts of the north and north-western portion of the country in numbers estimated at about 871,000. Their occupation is chiefly pasturing flocks

and herds. These Kirghiz must not be confounded with those (Buruts) of the Pamirs and other parts further eastward in Central Asia, described in Section I. The Kirghiz in this part of Turkistan are really the remnant of the *Kazzak Middle Horde*, though they probably are all of the same Turkish origin. The fact appears to be that the Russians term all wandering tribes "Kirghiz" and that among them is an infinite variety of races. Kostenko mentions a race called "*Cholo-Kazzaks*," included in the Kirghiz of Turkistan, and speaks of them as of mixed Kirghiz and Tartar descent leading a half-settled, half-nomad existence.

Some of the Kirghiz are so poor that they are obliged to turn their attention to agriculture and to the raising of millet and barley. These are called *Iginchi*, and they form the settled portion of the Kirghiz population.

Population.

The following figures of population of the various provinces of Russian Turkistan were taken by the Hon'ble G. Curzon, from the *Moscow Gazette* in May 1889 :—

	Nos.
Syr Daria	1,214,000
* Zarafshan (now the Samarkand Province)	394,000
Ferghana	716,000
Amu Daria (now the Amu Daria section)	133,630
Total	<u>2,457,630</u>

Latest estimates of the total population of the Turkistan country are as follows :—

	Nos.
<i>Turkistan Gazette of May 1893</i>	2,800,000
<i>M. Paul Gault in the Asiatic quarterly Review for July 1893 gives—</i>	
<i>Nomads</i>	1,209,018†
<i>Settlers</i>	1,367,192
	<u>2,576,210</u>

Thus the balance of opinion evidently concurs in putting the total population at about 2½ millions.

The population of Turkistan is scattered very unevenly over the surface of the country. Over large expanses of the Syr Daria Province the population is less than one to the square mile, while in the more fertile portions of the Zarafshan valley it is as much as 238 to the square mile.

The following figures will give an idea of the distribution of the population in the various provinces of the Turkistan Military district :—

	Population to the square mile (English).
Syr Daria Province	8
Ferghana	20, (in most cultivated parts 214.)
Samarkand	25, (in most cultivated parts 238.)

* The Handbooks of the Samarkand Province for 1893 and 1894 give a total population of 636,840 for that Province.

† NOTE.—This will be observed to differ from the statement of the *Turkistan Gazette* on page 7, to the effect that less than one-third of the total population are nomads.

The Invalide No. 274 of 12th—24th December 1893, quoting from the official statistics of the Syr Darian Province puts the population at 1,222,000.

If the total population were divided up equally over the total area the rate would be about 11 to the square mile, from which it will be seen how sparsely populated the country is. Even in Samarkand, the most densely inhabited province, the rate is very considerably less than an ordinarily populous government (*Gubernia*) of European Russia.

It will be observed that in the above sketch of the population and ethnography of the Turkistan country, the Province of Ferghana has been included although this province has been separately described in Section I, and does not come into the country considered in this section. This has been done to give completeness, and also because it is not possible to exclude it altogether; more details regarding its population will of course be found in the separate article on it in Section I.

(ii) BOKHARA.

No statistics, such as we have from the Russians regarding their own territory, are available for the Khanate of Bokhara. The people have a superstitious dislike of census and similar evidences of civilization. M. Ostroumoff gives us the only figures of Bokhara, as it now is, that we have, but it is impossible to say to what extent they are to be relied upon. He describes the inhabitants of the Khanate as a conglomeration of races combined by one religious faith. The total population he puts at one million souls of both sexes of whom about 750,000 are *Uzbeks*, *Kirghiz*, and *Karakalpaks*; 240,000 are *Tajiks* and the remaining 10,000 *Arvites*(?), *Persians*, *Jews* and *Gipsies*. About one half of the total population lead a settled life, the remainder, half-settled, half-nomad. The Gazetteer of Western Turkistan gives the total number of persons subject to the Amir of Bokhara as two millions, or even more, and Kostenko says, 1,500,000, from which it will be seen how conflicting the various accounts are. The central portion of the Khanate is the most densely-populated, then the western, and then Karategin; Darwaz is the least inhabited portion (estimate 30,000).

CLIMATE.

For the purposes of this report this subject may be dismissed with a few words. Generally speaking, the character of the climate of the whole country under consideration is extreme heat in summer and severe cold in winter. Rainfall scanty and, except in the north and north-west, snow also. The south-eastern portion (Ferghana, Samarkand and the Kurama Oasis), though very hot in summer, enjoys a mild winter, and the valleys and ravines of the various mountain ranges have a temperate climate all the year round. In the north-west the winter is very severe, 25 to 35 degrees of cold (Reaumur), and the rivers Syr and Amu and the various lakes freeze about the end of November, opening again in February. Rain falls in spring and autumn, and in Ferghana and Samarkand, in winter. In summer dew even does not fall in the deserts, and nothing grows anywhere below a height of 5,000 or 6,000 feet, save in the mountain valleys and for a short distance from the banks of rivers and streams, unless the land is artificially irrigated.

CHAPTER II.

MILITARY AND ADMINISTRATIVE DIVISION.—AREA.

The whole Russian territory in Central Asia as apart from Siberia at present consists of—

Main divisions
of Central
Asia.

THE TURKISTAN MILITARY DISTRICT (OKRUG).

THE TRANS-CASPIAN PROVINCE (OBLAST).

In addition to these there are the two nominally independent Khanates of KHIVA and BOKHARA.

The Trans-Caspian Province is under an entirely separate administration under a Commander-in-Chief of the troops.

Trans-Caspia and the Khanate of Khiva are treated in Section III of these Routes.

Ferghana and the Pamirs are considered in Section I.

The Turkistan Military district is divided into three Provinces (Oblasts) :—

The *Syr Daria Province*, with which is included the *Amu Daria Section (Otdel)*.

The *Samarkand Province*.

The *Ferghana Province*, including the country Russia is trying to annex on the Pamirs.

The map accompanying this report shows clearly the positions and internal boundaries of all these main divisions, and it is very important that they should be fully understood. They are here, for the first time, clearly laid down according to the latest Russian organization of their own country, and such vague and obsolete terms as "*the Zarafshan circle*" or "*the Amu Daria province*" should in future be altogether discarded as calculated to lead to confusion. It must be remembered that in all information, statistics, &c., derived from Russian sources now, the various divisions as here given are referred to, and they are understood and quoted by the Russians just as in the case of any other Government divisions of their Empire. It is obviously, therefore, equally necessary for us to accustom ourselves to think of them in the same manner.

The Turkistan Military district, both for military and administrative purposes, is under a *Governor-General*, who is also Commander-in-Chief of the troops. Each of the three provinces of which it is composed is under a "*Military Governor*."

According to the latest Russian General Orders (July 1893) it appears that the Governor-General is to be assisted by a Council. This is to consist of five members as follows :—

The Governor
General's
Council.

- (a) The Military Governors of the Syr Daria, Samarkand and Ferghana Provinces (when they are at Tashkend).
- (b) A permanent financial member appointed by the Minister of Finance.
- (c) The Chief of the Staff of the troops of the Turkistan Military District and Superintendent of the Governor-General's Office.

Besides the above, the heads of the various departments,—educational, customs, judicial, &c., take part in debates and have a right of vote on questions affecting their own departments. The Governor-General is also empowered to invite certain other persons, whom he may consider useful, for any particular debate, under which circumstances such persons will be allowed to vote on the occasion. The Political Agent in Bokhara is mentioned as one of these latter.

The three Provinces of the Turkistan Military District are subdivided again into districts (*Uyezds*) each under a *Nachalnik* or “*Superintendent of the district*,” who answers, more or less, to our “*Collector*” in India. An *Uyezd* is made up of artificially composed cantons (*Folosts*) of 1,000 to 2,000 tents or huts under an elected and salaried chief, under whom again, as assistants, are heads of hundreds—*Aksakals* or “white-beards.”

The districts of the Ferghana Province are given in Section I, and the following is a list of the internal administrative divisions of the Syr Daria and Samarkand Provinces, the Amu Daria Section, and the Khanate of Bokhara with their approximate areas.

The Syr
Daria
Province.

The Syr Daria Province is by far the largest of the three Turkistan Provinces, but more than two-thirds of its entire surface is taken up by the Kizil Kum sands.

It is divided into five districts as follows:—

				<i>Area.</i>
Aulia-Ata District	...	...	...	30,133 square miles.
Perovsk	..	..	..	46,988 ”
Kazalinsk	..	..	..	26,466 ”
Chimkend	..	..	..	40,455 ”
Tashkend	..	..	..	14,266 ”
Total area of province				... 158,308

The chief town of the Province and of the whole of Russian Turkistan is Tashkend.

The Amu
Daria Section.

The Amu Daria Section is divided into two Sub-divisions (*Uchastki*).

				<i>Area.</i>
Shurakhana (Chief town, Petro-Alexandrovsk)				22,444 square miles.
Chimbai (Chief town, Nukus)	...	...	...	14,577 ”
Total area of Amu Daria section				... 37,021

The
Samarkand
Province.

The Samarkand Province has four districts as follows:—

				<i>Area.</i>
Samarkand	...	...	...	7,208 square miles.
Katta-Kurgan	...	...	...	3,092 ”
Jizak	...	...	...	8,466 ”
Khojend	...	...	...	4,666 ”
TOTAL				... 23,432

All the above districts being named after the chief towns in them, their approximate positions are easily traced from the situations of these towns. The exact boundaries are of no importance to us.

The total extent of the Turkistan Military district (*i.e.*, including Area of Russian Turkistan.) of course Ferghana) is about 254,786* square miles.

It should be noted that for all purposes, other than military, the Russians speak of the Turkistan Military district above described as "*the Turkistan country*," but in view of the fact that we have to deal also with Chinese Turkistan it will be best understood by Englishmen as "*Russian Turkistan*," the only thing to remember being that Trans-Caspia is not included.

Bokhara is still allowed to retain a nominal independence and is governed by an Amir with a Russian Political Agent at his Court. The ruling race are Uzbeqs. The Khanate of Bokhara.

Like most Asiatic States, the boundaries of Bokhara have hitherto been very fluctuating, and the neighbouring countries have at different times owned and repudiated her sway. This has been particularly the case with the small eastern principalities of Karategin and Darwaz, which seem to have alternated between submission to Kokand, total independence, and dependence on Bokhara. The advent of the Russians however put an end to Kokand as a Khanate, and Bokhara having fallen completely under their influence was encouraged to gather in all possible territory for the eventual use of Russia. Thus since 1877 Karategin and Darwaz have formed an integral part of the Amir of Bokhara's dominions.

The powerful province of Hissar, which formerly included nine Begships, has frequently revolted, and the Shahr-i-Sabz Begship, for 150 years previous to 1870, was in a constant state of rebellion. In 1868, when Bokhara submitted to the Russians, the Shahr-i-Sabz Begship declared itself independent and attempted to retake the town of Samarkand from the Russians. Abramoff's expedition in 1870, however, put an end for ever to its aspirations for freedom, and Shahr-i-Sabz was handed over to Bokhara no longer as a semi-dependent, but as a completely subjected Begship. The province of Hissar also no longer exists as a province, and according to latest information from Russian sources the Khanate of Bokhara now consists of the following Begships or districts all equally and entirely dependent on the Amir:—

Karmina (Kermine),	Karshi,	Hissar,
Charjui,	Kabakli,†	Baljuan and Kulab,
Kerki,	Shahr-i-Sabz,‡	Karategin,
Lab-i-Ab,	Shirabad,	Darwaz.

The Beks receive no salary from the Amir's treasury, but are allowed to collect a tax (*Hiraj*) of one-tenth of the grain harvest for their own profit. The Amir's revenue is drawn from a tax (*Ziaket*) levied at the rate of one-fortieth of the value of live-stock and capital in possession of the people.

The interior economy of Bokhara is here merely touched upon, and the latest division into Begships given; a great deal more information will of course be found in the Gazetteers and various books on the country.

* 248,773 according to M. Paul Gault,—*vide Asiatic Quarterly Review* for July 1893.

† Taken from Khiva and given to Bokhara by the Russians in order to make her responsible for the caravan routes passing through it.

‡ Or Sharshauz.

A short description of the ethnography and population will be found under those headings on page 10.

We have no statistics as to the superficial area of the Khanate as included within its present boundaries. Indeed the only estimate we have is one by Kostenko (1881), which is accordingly given here for the sake of comparison till later information is available—

	Square miles.
Khanate of Bokhara proper	68,000
Petty States at the source of the Oxus	57,275
Total	125,275

In this total are included Samarkand, Jizak, and Katta-Kurgan, which at that time formed part of the territory of Bokhara. If therefore we deduct the area of these three districts of the Russian province of Samarkand, we shall probably obtain as accurate an estimate of the extent of present Bokharan territory as is possible under the circumstances. This will be 106,509 square miles.

x The railway now runs as far East as Andijan (1900)
Geosky

CHAPTER III.

MAIN LINES OF ADVANCE AND COMMUNICATIONS— BASES.

From Kazalinsk (Fort No. 1) *viâ* Chimkend runs the continuation of the great post road from Orsk and Orenburg to Tashkend. Previous to the completion of the Trans-Caspian Railway to Samarkand this was Russia's main line of communication with her Central Asian possessions, and it is connected with her general European Railway system at Orenburg. Kazalinsk, therefore, though at a distance of 665 miles, is in direct communication by a road, at any rate fit for the passage of all arms, with European Russia and also, by the same road, with Tashkend, the capital of the Turkistan country. The road is still used for movements of troops and stores in communication with the Orenburg Military district and the Siberian provinces of Turgai and Akmolinsk. Kazalinsk and Tashkend may therefore be considered as primary bases for the purposes of the routes treated of in this Section, though Kazalinsk, since the construction of the railway, has sunk to a position of altogether minor importance.

From the line Kazalinsk-Chimkend-Tashkend (which is Route No. 1), Routes 3 to 20 lead to the secondary and more important line of bases, Kerki, Bokhara, and Samarkand, which, a glance at the map will show, lie almost in the direct prolongation of the line of Khojend, Kokand and Margilan, the bases in the Ferghana Province. All these are in direct communication with one another by one of the main post roads of the country.

Nos. 25 to 84 show the routes (and lateral communications) by which columns would advance from the line of main bases to the Oxus for the concentration at Shirabad and Kelif and the various points of crossing of the river, preparatory to the occupation of the immediate objectives Mazar-i-Sharif, Tashkurgan and Kunduz, in Northern Afghanistan, and (from Kulab) of Faizabad in Badakhshan.

The towns of Bokhara and Samarkand are in communication with each other, with the Amu Daria river (at Charjui), with the Caspian Sea, and with the advance on Herat from Merv, by the Trans-Caspian Railway; and between Bokhara and Samarkand there are, moreover, two parallel roads (Routes 21 and 22), one on each bank of the Zarafshan river, fit for wheeled traffic, while the country about both of them, and throughout almost the whole intervening distance, is cultivated and open. Eastwards from Samarkand the communication between bases is by postal road (Route No. 20), *viâ* Jizak, Ura-Tapa, and Khojend) into Ferghana and at Jizak and Khojend this road is joined by other post roads from Tashkend (Routes Nos. 18 and 19). Railway extensions from Samarkand both towards Tashkend and Ferghana are expected shortly to be commenced, which will still further improve the communications.

The two chief bases of Samarkand and Bokhara would thus be mainly supplied by the railway, while in case of need there would still

Bases and
communica-
tions between
them.

remain open the avenues of approach from Kazalinsk, Tashkend, and Siberia. (Route No. 1 from Orenburg, and the circuitous route by Semipatalinsk and Omsk.*)

Advance from
Katta-Kurgan
and Kurmina.

Troops for the advance and, subsequently, reserves, would naturally be collected along the railway† and advance from thence, and in this connection there are two important points on the line, between the two main bases, which must not be lost sight of. These are Katta-Kurgan, the Russian frontier post towards Bokhara, and Kerminé, a fort in Bokharan territory. These two places, as intermediate stations, divide up equally, the whole distance between Bokhara and Samarkand and are convenient for mobilising troops at, while both are connected by cart roads (Routes 30 and 30-A.) with Karshi. A simultaneous advance from them would therefore do much to relieve congestion on the main lines, at all events as far as the Karshi oasis.

General
characteristics
of the advance
from Bokhara
and Samar-
kand.

The lines of advance from Bokhara and Samarkand on to the Oxus are numerous, but not altogether easy as most of them lie, at any rate for some part of their length, either over mountains, or through desert country where water and supplies are scarce, and the main roads are, moreover, in some parts compressed laterally into narrow spaces, (notably at Karshi and the Jam defile) where blocks of trains might consequently occur. Route No. 48 is the probable road that would be followed by the artillery and trains from Samarkand, while infantry and cavalry could easily move by nearly all the others. In view of the fact that all movements here would probably take place absolutely unopposed, if not absolutely unknown, and that ample time would in all probability be available for the concentration, it is evident that the very inconsiderable obstacles to an advance presented by the nature of the country may be altogether disregarded, and there is little doubt that the assembly of the troops all along the river would be accomplished without difficulty, and probably long before information of the movement reached even Kabul, to say nothing of India.

Advance from
Bokhara.

The advance from Bokhara to Kelif would probably be by Charjui, Kerki and the Oxus (by rail and steamer or Routes Nos. 24 and 26, stages 11 to 17) and not direct across the desert to Burdalik or Karshi (Routes Nos. 25 and 28); as there is very little water on these latter roads, they save very little in time and distance, and the former of them would bring the troops marching by it into the midst of the main columns marching from Samarkand, at Karshi. The Oxus line, on the other hand, would be quite separate and would leave the roads from Samarkand entirely free. The troops from Bokhara and Petro-Alexandrovsk would probably be *gradually* concentrated at Kerki (where a magazine appears to be even now being formed), and from thence three marches would bring them either to join the main concentration at Kelif, or to Andkhoi, as

* Stumm's distances for this latter route are—

Tashkend to Omsk	...	...	...	...	Miles. 1,664
Omsk to Orenburg	...	...	...	...	997
			Total	...	<u>2,661</u>

† In Kuropatkin's scheme his dispositions for the reserves of the Turkistan column were that they were to be stationed along the railway at Samarkand, Tashkend and Bokhara, although at the time the scheme was made, the railway had not advanced beyond Merv, and even yet it has not reached Tashkend.

circumstances might require. Another reason for supposing that the line of Charjui, Kerki, and Kelif would be largely used from Bokhara, is that this route would be supplemented by that of the river on which the flotilla is said to be able to convey at least two battalions each trip. As, however, the time taken in going and returning between Charjui and Kerki is seven days, and difficulties of navigation might have to be contended with, this means of conveying troops would probably only be resorted to during the stage of the *gradual* massing at Kerki above referred to, while the concentration at Kelif once commenced, the use of the flotilla would probably be confined to bringing supplies from the railway as far up to the troops as possible. Its value in this respect ought not to be under-estimated, as one of the chief difficulties of a Russian advance across the river into Afghanistan would be the keeping up of a constant stream of supplies by the mountain roads of Bokhara. It is reported in the Russian press that two* more steamers, *two barges, two lighters, and some small boats are to be commenced in the spring of 1894 for the Oxus flotilla, and meanwhile we learn that two small steam launches and two iron boats, about the size and form of Kayaks, are already on their way. Experts have decided that the river is not suited for vessels drawing more than two feet of water.

From Samarkand and Katta-Kurgan, as far as Karshi, good level parallel wheel roads exist (Nos. 43, 44, and 30-A.), and quite lately we hear that the direct road across the hills to Shahr-i-Sabz† (No. 45) has been made practicable for carts. The mountain road on from here (Route 57) *via* Kalta Minar to the main Karshi-Shirabad road is easy, and could in a short time be also made practicable, and this would be a great improvement in the communications between Samarkand and the Oxus. Advance from Samarkand.

From Karshi to Kelif there are two roads (Nos. 31 and 27), the latter having a loop from Guzar to Kugitang (Route 34). The first is a desert road, and we know practically nothing at all about it, and it appears to be very little used, but the latter is fully practicable for cavalry, infantry, and pack animals, though carts would have to go by Shirabad. The main wheel road would probably be No. 28‡ by Jam, Karshi, Guzar, Derband, and Shirabad. Supplies, water, fuel and forage are available along this route.

Shirabad would probably be a very important advanced base as convenient roads lead to it, as has been shown, and from it roads branch to Kugitang where additional supplies are available, and to Kelif, Chushka-Guzar, and Patta-Hissar, three important ferries over the river. There is also a fairly good road connecting it with Kabadian, Kurgan-Tube or Tapa and Kulab (Routes Nos. 72, 76, 83), other points where stores would probably be collected. More grain and supplies generally are procurable in the Kugitan than in the Shirabad valley, but Shirabad from its situation and communications would be the most convenient point in all this part of the country for collecting the resources of the Shahr-i-Sabz valley, the Karshi-Guzar oasis and the Kugitang valley. The resources of the Hissar valley, Denau, the Surkhan, Kafirnihan, and Waksh valleys would be available for storing at Kabadian, Kurgan-Tube and Kulab.

* By an Imperial Ukaze of the 11th April 1894, the two steamers Tsar and Tsarina and the two barges "Petersburg" and "Moscow" have been struck off the strength of the Oxus Flotilla. The two steamers and two barges mentioned in the text above are presumably intended to take the place of those condemned.

Invalide 19th—31st May 1894.

† Or Sharshauz.

‡ Incorporated in Route No. 48 referred to on preceding page.

Whether any arrangements of this description are as yet being carried out, we have no means of knowing. It is impossible to find out what the Russians are doing here, along the north bank of the Oxus. We have information to show that large quantities of supplies and war material are being collected and stored on the Kushk river at the post of Sheikh-Junaid, and at Kerki, but eastward of this we have nothing to guide us. It is, however, improbable that anything is being done at present, beyond isolated reconnaissances of the ferries, &c., by Russian officers, as Bokhara is still allowed by Russia to retain her nominal independence, and consequently preparations for an advance are at present confined to her own territories.

Roads from
the Zarafshan
valley.

From the post road running east from Samarkand, mountain roads lead from Zamin and Ura-Tube over the Turkistan mountains into the Upper Zarafshan valley (Route 61) and thence, from the villages of Urmitan, Varziminor and Oburdon (all on the Zarafshan river), similar roads lead across the passes of the Zarafshan and Hissar mountains, and the intervening Yagnab valley, to the line of important towns standing on the southern slopes of the Hissar range where they sink to the general plain of the Oxus. The most important of these roads is that from Varziminor to Karatagh over the Mura Pass (No. 63), which is the most convenient one connecting the Zarafshan and Yagnab valleys with the Hissar province, while at Karatagh roads branch to Sari-Jui and the town of Hissar, and thence down the Surkhan and Kafirnihan rivers to points of crossing of the Oxus or to Kulab. All the roads in the Zarafshan and Hissar mountains are, however, difficult and not at all well known.

Lateral com-
munications in
Bokhara.

Route No. 70 connecting the line of towns above referred to, *viz.*:—Derband, Denau, Sari-Jui, Karatagh, Hissar, Kafirnihan, Faizabad in Hissar, Baljuan and Kulab—is a most important one. Striking off at Derband from the main roads from Samarkand and Bokhara, it runs east through fertile country the whole way and affords lateral communication between all the other roads in Hissar and Kulab, and is shown in Russian maps as fit for wheeled traffic throughout. From Kulab it passes on right down to Faizabad in Badakhshan, crossing the Oxus by the Samti ferry *en route*, and is there connected with the main road from Mazar-i-Sharif in Afghan Turkistan and even also by the Nuksan or Dorah passes in the Hindu-Kush with Chitral, Dir, and the Indus. Another important and fairly good road is that connecting the line of advanced bases—Kelif, Shirabad, Kabadian, Kurgan-Tube or Tapa,* and Kulab (Nos. 72, 76, 83).

TRANSPORT.

Arabas.

The only wheeled transport afforded by the country is the *araba*, a clumsy two-wheeled country cart drawn by one horse or pony. It carries about 720 lbs. It has many disadvantages as a military transport, the principal being its want of durability and the difficulty of taking it either up or down a slope. Experiments, however, were made by the Turkistan troops to adapt it to regimental transport, but these failed, and the idea of using it as permanent transport has been given up. Nevertheless in operations on a large scale it would be impossible to do without arabas. A sufficient quantity are only to be found in the large native towns such as Tashkend, Khojend, Kokand, Margilan, Namangan, Andijan, and Samarkand. There are practically no arabas

* Called by the Russians the Kushkinski Post.

in the Bokharan Khanate or anywhere among the nomads. In general it may be said that the supply is limited.

Russian telegas are in use in Semirechia and are being introduced to a certain extent in Turkistan. They also are little fitted for transport in Central Asia. A certain number of the new cart (*dvu-kolki*), which is in use for ammunition and all first line baggage with troops in European Russia, will probably be attached to regiments operating in Central Asia as communications improve. The camel is sometimes harnessed to the araba and telega, which does away with the loading and unloading of the animal at each halt, but the vehicles are so bad that they do not carry much more than the camel carries on his back, and the train takes up much more room, and many more drivers are required, as one is needed for each cart, while with pack animals one man leads a long string. Telegas and
Dvu-Kolki.

The camel is of course the principal transport animal in Central Asia, and throughout the Syr Daria Province and in the desert generally he is everywhere in use. But on steep or rocky ground this important means of transport fails. Thus in Bokhara, except in the west, we do not find the camel much in use with caravans, and over a large portion of the Russian main line of advance by Derband and Shirabad to the Oxus, the caravan trade is mostly carried on by horses.* The Russians have always had great difficulty in collecting sufficient transport even for their detachments of 3,000 to 5,000 men in their steppe campaigns, and, as usually little or nothing in the way of supplies or food for the animals is obtainable on the roads, everything has to be carried with the troops, and the trains accordingly become enormous. In 1839-40 Perovski's Khiva column of 3,000 men had more than 10,000 camels, and in the Khivan campaign of 1873 the Turkistan detachment alone had 8,800, and to these another thousand had to be added. In the concentration for a diversion against India in 1878, when columns amounting to an aggregate of 20,000 men were assembled, great difficulties were experienced in the collection of the necessary transport, when about 30,000 camels were required. Kostenko says that months of preparation are required for requisitioning the necessary baggage animals before undertaking an expedition of any kind. The camel supply is chiefly from the Kizil Kum Kirghiz (Syr Daria Province), Khiva, and the Hazakh Kirghiz of Bokhara. There are two kinds of camel in the country, the two-humped (*tuya*), which is most common, and the one-humped (*Nar-tuya* or *dromedary*). The former endures cold well, but the latter carries more. Kostenko says "in the case of trade caravans the load is a fixed one amounting to 16 poods (576 lbs.), or for the one-humped Khivan camel as much as 18 poods (648 lbs.), but for the movement of troops the several loads are reduced to a uniform weight of 12 poods (432 lbs.)." Camels.

The animal next in importance for transport purposes in Central Asia is the horse. In mountainous regions he is almost the only means of transport. The chief breeds in the country and details Horses.

* Captain Picot, however, speaks of the Hissar local camels being used in the southern trade *via* Shirabad and Kabadian with Afghan-Turkistan, and says that there is also an important carrying trade from Hissar to Bokhara and Samarkand on the one hand and to Kulab and Rustak on the other, which is in the hands of the Hazakh Kirghiz camel owners. He heard 30,000 to 80,000 mentioned as the total number of camels, but was not able to arrive at anything definite.

regarding the breeding as carried on by the nomads, and Russian experiments are given by Kostenko, (Section V, Chapter VIII). Ponies are reported to be very numerous in Badakhshan and even more so in Kulab. Men from Badakhshan state that 10,000 ponies might be collected in Kulab. Large numbers are bred between Kulab and Kangrud and on the large plains to the south of that line.

Russian enterprise in horse-breeding does not appear to have been very successful. The average load of a horse is about 200 lbs.

Mules and
donkeys.

Mules are in use in the Zarafshan valley and in Ferghana, but not much in Bokhara, where the donkey is a very favourite beast both for burden and riding. The donkey is of little value for military transport, however, as he cannot carry more than 126 lbs. on a prolonged journey, he is very troublesome, and so many being required the train lengthens out very much. We have no statistics as to the number of mules available.

For numbers of camels, horses, donkeys, &c., in Turkistan, see under Resources, Chapter IV.

CHAPTER IV.

GENERAL RESOURCES OF THE COUNTRY.

In this respect the North-Western portion may be disregarded altogether as supplying barely sufficient means of subsistence for its own scattered and mostly nomad population, who have to make long wanderings to find food for themselves and scanty pasture for their flocks. In the Khivan Oasis, and the Russian Amu Daria Section on the right bank of the Oxus, and among the nomads of the Amu and Syr, cattle and sheep-rearing and agriculture are carried on to a certain extent, and camels are obtainable in large numbers from this part of the country. The *saxaul* of the desert is useful as fuel and in some parts is exported as charcoal, but it is so easily exhausted in the places where it exists that the Russians now forbid its use in proximity to important lines of communication. Minerals such as sulphur, gypsum, slate, and limestone are found in abundance on the Kizil Kum, and also vast quantities of salt, both rock and evaporated, but the mineral wealth is little explored or worked.

The North-
Western
portion.

In the South-Eastern portion of the country we have a very different case to consider. Here there is a large area of ground under cultivation, steppe lands on which vast flocks and herds are pastured, and valleys and ravines in the mountains sheltered from the summer heat and winter cold where vegetation flourishes continually. Water is also here abundantly supplied by the numerous rivers rushing down from the snows and glaciers of the mountains, and towns and flourishing settlements abound.

The South-
Eastern
portion.

In order to obtain a clear idea of the proportion of land under cultivation and grazing, it will be convenient to consider separately in this respect each main division of the whole country under consideration, as follows:—

- I.—The Syr Daria province.
- II.—The Samarkand Province.
- III.—The Khanate of Bokhara.

I.—THE SYR DARIA PROVINCE.

The fertile portions are—

- (a) Parts of the Kazalinsk district and Amu Daria section.
- (b) The Tashkend district, including the rich valleys of the Angren, Chirchik and Keles (Kurama Oasis).
- (c) The Chimkend district, watered by the Aris and its tributaries.
- (d) The country about Aulia-ata watered by the Talas.

From articles in the "Russki Invalid," (12th and 13th December 1893), we learn, that in 1891, the southern portion of this province had a good harvest; but the north-western district and in particular the Kazalinsk suffered considerably, owing to a wholesale destruction of its irrigation canals. The latter district was in great distress, and had to obtain assistance from Government; which purchased 78,000 poods of grain from the southern portion for a sum of Rs. 75,000 roubles, and distributed the same both as seed and food.

The Perovsk district, in spite of severe floods, was just able to support itself. The Kirgiz steppe, regularly one year out of every 13 furnishes no crop. Latterly, successful experiments have been made, both in this and the Samarkand Province in cultivating Chinese rice, the advantage being that the latter does not require so much moisture; and the evil sanitary effects of marshy rice-fields are obviated. Where cultivation was properly attended to, the results were most satisfactory; but at present it is not properly understood by the native population.

Cattle-breeding was also fairly successful in 1891, with exception of the Kazalinsk district, which lost 40 per cent. of its stock on account of lack of fodder. All this does not look like any surplus food resources being available from the Syr Daria Province for anything beyond the immediate needs of the province itself.

Colonization.

Nevertheless, the country in the Tashkend, Chimkend and Aulia-ata districts has lately been made to support no less than 47 settlements of Russian peasants, with a total of 18,000 souls. The official account of this colonization was published by General Grodeko, the Military Governor of the province, in the Turkistan Gazette in September 1892, and, according to this, the colonies were in a very satisfactory condition, but it is at the same time announced that all available ground has now been occupied and that there is no more scope for immigration at present. A map showing the position of these colonies, which lie mostly along the Aris and its tributaries about Chimkend, on the road from Chimkend to Aulia-ata, and about Tashkend, was published at the same time as the article above referred to. The colonists are intended to develop and cultivate the ground as well as Russianize the country generally, they are doing fairly well.

Cotton.

The return for 1891 was unsatisfactory. American cotton preponderates, and 12,788 desiatines were planted with it, yielding 171,190 poods of raw cotton. Country cotton was cultivated on 2,692 desiatines and yielded 30,820 poods of raw material.

There are 19 cleaning factories in the province which turned out 771,125 poods of pure fibre, but the principal amount cleaned came from Samarkand and Ferghana.

Wine.

The manufacture and trade has made great strides, and promises to increase annually.

Trade.

There are 71 factories in the province, which showed a gross trade return of 2,175,244 roubles for the year 1891.

1,771,670 head of cattle were sold for 9,936,300 roubles.

Exclusive of this amount, the following table gives the trade returns of the principal towns in the district:—

Town.	Imports.	Exports.	Totals.
Tashkend	10,824,000	6,627,000	17,451,000
Kazalinsk	267,000	262,000	529,000
Chimkend	287,000	109,000	396,000
Petro-Alexandrovsck ... ..	...	300,000	300,000
Perovsk	180,000	86,600	266,600

The valleys of the Chirchik, Angren and Keles.

The river Chirchik, which also, by means of the Zakh and Karasu *ariks*, supplies part of its waters to the Angren and Keles rivers, and by the great canal Boss-Su waters the town of Tashkend, fertilizes a fair extent of country and the valleys of the Angren and Keles are

populous and very fertile, but the productions are more fruit and vegetables than cereals. From the point where the valleys of all these three streams run into one another between Tashkend and the Syr Daria the country takes more the character of steppes and is suitable only for grazing.

Corn is grown on the lower slopes of the hills forming the water-partings of the above-mentioned rivers, and lower down rice, cotton and tobacco.

In the gardens are various fruits and melons, and the vine is cultivated to a large extent about Tashkend.* Dried fruit is one of the chief exports from this part of the country.

The valleys of the Aris and its tributaries, the Badam, Ak-su, The Mashat and Boroldai, possess a fertile soil and are fairly densely populated, but the cultivation is unequal, depending on the irrigation. Chimkend district.

Coal is found in the mountains near Chimkend, but it is only sufficiently worked to provide fuel for Government buildings.

The Aulia-ata district is fertilized by the river Talas, but it is only in the central portion of its course after receiving the tributary Kara-buru on its left bank, that the river widens and forms islands with beautiful meadows, and generally fertilizes the country about the town of Aulia-ata. In the upper portion of its course it is formed from two streams flowing in narrow rocky ravines, but is nevertheless spoken of as affording, in this part, excellent pasture lands. The Aulia-ata district.

The lower portion is considered a suitable wintering ground by the Kirghiz.

The strips of country on either bank of the Syr, but particularly on the right bank from Khojend down to about the town of Turkistan, are fertilized by that river, but the harvest depends on the overflow, which is uncertain.

Building timber is very scarce in the whole province.

† The 1891 official statistics for the Syr Daria Province give the resources of cattle, &c., as follows:— Timber. Animals.

Camels	...	...	417,069	
Horses	...	...	428,261	
Donkeys	...	...	12,808	
Horned Cattle	...	...	365,174	These are of poor quality and small.
Sheep	..	...	4,043,487	These give wool and hides, which form one of the chief exports. All the nomads rear sheep.
Goats	...	...	441,174	
			Total live stock	6,412,268 head.

The yearly loss in live-stock from snow and severe winter weather is immense. In 1890 owing to very deep snow in January and February the Aulia-ata district alone lost 6,202 horses, 30,744 sheep, 255 camels and 724 horned cattle.

The total amount of fertile land in the Amu Daria Section is said to be 1,555 square miles. For statistics of live-stock see page 25. Amu Daria Section.

The amount of fertile country formed by all the islands of the Amu Daria is estimated at 4,577 square miles.

There are 43 Russian schools, including 2 Gymnasias in Tashkend. Educational.

* 2,740 desiatines in 1891. A desiatine is about 2½ acres

† From the Invalide No. 274 of 12th—24th December 1893.

II.—THE SAMARKAND PROVINCE.

Almost the whole of this province is fertile; capital is, however, required to work the country, which is wanting in irrigation, by which means large tracts of steppes might be turned into rich oases.

Population.

It consists of the Zarafshan and Yagnab valleys and part of the valley of the Syr between Khojerd and Jizak. On the north-east the province abuts on to the Kizil Kum sands, and its desert. Calculating 5 persons to each Kibitka, we get a total of about 735,000 natives. The number of Europeans, inclusive of the army, amounts to 14,954.

In 1892, 3,157 emigrants of both sexes came from Russia, but most of them went to the Syr-Daria district. There are 5 Russian settlements, all in the neighbourhood of Khojend; of these Sryetenski is the most thriving.

Revenue.

The revenue was fixed at 1,118,540 roubles; of this amount only 142,182 roubles remained unpaid by the end of 1892, but were probably recovered in the beginning of 1893.

The Zarafshan valley.

The valley of the Zarafshan is one of the most important valleys in all Russian Central Asia. The extent of land under cultivation (approximately 2,220 square miles), although considerably less than that in Ferghana, is extremely fertile, the soil yielding harvest after harvest without becoming exhausted, and garden and food produce is paid more attention to than in Ferghana, where cotton occupies so large a proportion of the irrigated lands.

Both Russia's probable future main bases, *viz.*, Samarkand and Bokhara, are situated in the Zarafshan valley and draw supplies from it.

The total length of the valley from the Zarafshan glacier to the place where the river loses itself in the sands is about 426 miles, of which 286 (206 according to Ostroumoff) are in Russian territory, the remainder being Bokharan. The valley may be divided into two sharply-defined and very different portions: the *eastern*, mountainous, and *western*, low-lying and level. It is bounded on the north by the Turkistan mountains, and on the south by the Zarafshan and spurs of the great Hissar range.

Eastern portion of the Zarafshan valley (Kohistan).

The eastern portion is called by the natives "Kohistan," *i.e.*, the "mountain country," and the inhabitants are the poor wretched "Galchas" who claim to be the descendants of the ancient Greeks, who came with Alexander the Great. They engage in agriculture as far as the nature of the country allows, but the rocky soil is not very suitable for raising crops. The chief grain sown is barley, which yields a three-fold harvest. Hardly sufficient breadstuffs are produced for the subsistence of the people, who have to import corn from Karategin and Ma-Tubé in Ferghana. The principal occupation is sheep-rearing, each village possessing its particular hill or hills on which it pastures its sheep and goats. These form the wealth of the people. Captain Picot gives the length of this portion as 150 miles, breadth varying from a few hundred yards to a few versts; houses 10,000; inhabitants 40,000.

The chief means of transport is the mule.

Timber.

Timber is cut in the forests on the northern slopes of the Zarafshan and Hissar mountains, roughly sawn into logs on the spot, and carried by mules (two logs on a mule, one on each side) down to the Zarafshan river at Panjkend, whence it is floated down to Samarkand

According to the official statistics published in the Handbook of the Samarkand Province for 1893-94, the total native population amounted to 644,800 souls in 1891, and doubtless now exceeds this number.

and Bokhara. The forests are nearly exhausted and the Russians have lately been trying experiments in tree-planting on an extensive scale near Samarkand, which we hear have been very successful even without artificial irrigation. Two plantations have been started, one of 300 and the other of 1,000 acres.

From Panjkend the mountains retire from the river to the north and the valley widens, and starting from this point, countless *ariks* branch off to either side from the main stream and fertilize all the surrounding country, which is henceforth covered with fields and gardens. The richest and most populous part of the valley is the island of Miankala, formed by two channels of the Zarafshan, the Ak and Kara-Daria, which separate about 5 miles north of Samarkand and re-unite 60 miles lower down. The greatest width is about $13\frac{1}{2}$ miles—average, 7 miles. Every inch of this is closely cultivated, and the island is described as “a sea of gardens.” The harvest in all this portion is said to be tenfold, but this is perhaps somewhat exaggerated.

The natural productions include cotton, wheat, barley, rice, jugara (sorghum), maize, flax, indau,* tobacco, lucerne, dye-growths, vegetables of all kinds, melons, fruit trees, &c. The rice cultivation is of especial importance, but the wheat and barley is insufficient, and large imports have to be made from Hissar, Karshi, Shahr-i-Sabz† and Igizah in Syr Daria to make good the deficiency.

Coal mines exist in Panjkend.‡

The Yagnab valley is separated from the Zarafshan valley by the low range of the Zarafshan mountains. It is of small importance as regards resources, being mountainous and of small extent. Communications with it are also difficult.

The valley of the Syr between Khojend and Jizak is a continuation of the Ferghana valley. It is comparatively densely-populated, and cotton-planting is extensively carried on. The silk of Khojend is also famous throughout all Central Asia. Besides the chief towns there are no less than 250 Kishlaks with settled populations, between Khojend and Nurata.

For statistics of livestock in the Samarkand Province we have unfortunately nothing official later than Kostenko (1880). His figures, however, are still valuable, as the difference, judging from the latest statistics of the Syr Daria Province in our possession, is not so great as to render them useless for purposes of practical calculations. The Samarkand Province is of course not nearly so important in this respect as the Syr Daria Province and Khanate of Bokhara. Kostenko gives the numbers of animals as follows:—

Camels	1,258	Animals in the Samarkand Province.‡
Horses	...	...	...	51,991
Horned cattle	...	...	...	84,463
Sheep	...	...	...	283,000
Donkeys	...	...	...	43,375

* *Jadai* or *Ervea* grows up amongst the flax, and from the seeds of this weed an oil extracted that is mixed with the oil pressed out from the seeds of the flax. Pure oil of indau seed is used in native veterinary practice for horses' sores.—*Kostenko*.

† Or Sharshauz.

‡ These mines are said to contain six layers, two of which have been opened up and promise to yield $2\frac{1}{2}$ million poods of coal.

The Handbook of the Samarkand Province for 1893 gives the following figures:

Camels	...	...	...	...	30,003
Horses	...	...	...	...	108,470
Cattle	...	...	...	...	140,301
Goats and sheep	...	...	...	...	408,739
Karakul sheep	...	...	...	...	5,000
Asses	...	...	...	...	43,375

Animals in
Amu Daria
Section of
Syr Daria
Province.

Kostenko also gives the following estimate of livestock in the Amu Daria Section :—

Camels	...	...	...	...	11,267
Horses	...	...	...	...	47,995
Horned cattle	...	...	...	...	38,070
Sheep	...	...	...	...	323,606

Total
livestock
resources of
Turkistan.

Combining the figures of livestock above given, with those of the Syr Daria Province on page 23, and Ferghana (taken from Kostenko), we obtain for the total livestock resources of Turkistan the following figures :—

Camels.	Horses.	Horned cattle.	Sheep and Goats.	Asses.
*496,633	... 758,486	... 764,262	... 6,543,144	... 56,183

Estimate
obtained by
the Hon'ble
G. Curzon.

Curzon's figures (1885 and later) are—

Camels.	Horses.	Horned cattle.	Sheep and Goats.
382,200	... 645,000	... 525,000	... 4,810,000.

from which it will be seen that Mr. Curzon's numbers are considerably lower than those arrived at in this report.

The following summary of resources in Russian Turkistan is taken from Curzon and the Gazetteers, corrected where possible by later official statistics. It must be again observed that the figures are not wholly trustworthy.

Land.

Of the total 152,500,000 acres† in Turkistan 70,000,000 are useless either for pasture or cultivation, consisting of steppe, mountains, and sand; 75,000,000 are available only for pasture; and of the remaining 7,500,000, 5,000,000 are under cultivation and 2,500,000 are prairie lands. A great deal of information regarding the cultivable lands of Turkistan will be found in Kostenko (Section V, Chapter I), but it is not known to what extent it is now applicable.

Grain.

The mean annual production of the cultivated lands in thousands of poods is as follows :—

Wheat	...	...	...	...	17,000
Rice	...	...	...	...	10,000
Sorghum	...	...	...	...	8,800
Millet	...	...	...	...	5,400
Barley	...	...	...	...	3,100
Other cereals	...	...	...	...	3,600
Total					47,900

According to the Russian Invalide of 1894; the total amount of grain produced in the Samarkand district amounted to 3,200,000 chetverts in 1891 and 2,256,000 in 1892, (1 chetvert = 8 bushels). The amount exported fell by 40 per cent., but nevertheless, 35,000 poods of grain were imported from Bokhara.

Curzon also says that the nomads of the Syr and Amu Daria raise annually 3,000,000 poods of corn, but it is difficult to reconcile this statement with what we learn of the actual state of affairs, from the Russian Central Asian Press. If Curzon's statement were true it would mean that these nomads raise infinitely more corn than all the rest of the cultivated lands of Turkistan put together, judging from his own figures given above.

Horticulture.

Horticulture occupies an area of 250,000 acres, chiefly in mountainous regions; the chief fruits grown are the vine, apples, pears, cherries, plums, mulberries and nuts, 3,750,000 poods of grapes are given as the return for 1892, of these 350,000 were used for wine.

* Includes the figures given in note at foot of preceding page.
† 163,063,040 according to Ostroumoff.

Sericulture is one of the main branches of industrial occupation Sericulture. the figures of annual produce being as follows:—

Ferghana	...	...	...	...	15,000	poods.
Zarafshan	...	...	...	...	10,000	"
Khojend	...	...	...	...	3,000	"
Chimkend and Turkistan (town)	...	...	...	...	2,000	"
Bokhara	...	...	...	...	60,000	"
Khiva	...	...	...	...	3,000	"
Kashgar	...	...	...	...	10,000	"

Total spun silk from Central Asia 103,000 poods, which, at the price of 125 roubles the pood, gives an annual revenue of nearly 13,000,000 roubles (£ 1,300,000).

The increase of this industry has been little short of marvellous. Cotton. The local article having been found of too poor a quality to be used in manufacture, the American staple was introduced, and after many attempts may at last be considered to have succeeded. The following statistics of American cotton show the rapidity with which the industry has grown.

In 1884, 10,000 poods of American cotton were exported through Orenburg to Russia. In 1887, the year before the opening of the Railway to Samarkand, 212,000 poods were produced for export. In 1890, 2,605,062 poods were exported from Central Asia, and the following are the figures for 1892:—

Ferghana—produced 2,000,000 poods.* (At present there is no more land available owing to the necessity of growing sufficient grain).

Syr Daria—200,000 poods (400,000 in 1891.) Such fluctuations may be expected to recur; good harvests only occasionally.

Samarkand—2,350,000 poods.

Samarkand and Ferghana are less dependent than Syr Daria on climatic conditions.

Bokhara—1,250,000 poods, native, but better than the Turkistan article.

The *Turkistan Gazette* says that even under present unfavourable conditions (bad roads, absence of capital, &c.), these figures may be largely increased, but the same paper also observes that the cotton greatly impoverishes the soil, and that it will be absolutely necessary to establish rotation of crops. Machinery is also stated to be much wanted. The market price of cotton in Central Asia is 22 to 24 roubles per batman of 12 poods, or 432 lbs. Av.

The Chimkend district forms the northern limit of the cotton country. Mineralogy.

Mining is limited to coal and lead. Latterly, attention has been directed to veins of copper which, though not thick, possess a high percentage of pure metal. Absence of capital hampers the mining industry, and the riches of Turkistan in this respect are very little developed. The coal mines near Khojend produce about 750,000 poods a year. A Russian engineer reported in 1889 that some oil wells at Faujkend contained at least 9 billions of pounds of perfectly pure oil.

The fisheries at the mouth of the Syr Daria and in the Aral Sea Fishing and furs. bring in an annual revenue of about £ 10,000; the sale of skins and furs £ 55,000.

1,662 native workshops, with 6,050 artisans, produce about Native Manu- factories. £285,000.

* 1,134,170 poods (American) and 247,259 (local) according to the Kavkaz of 16th June 1894.

Russian Manufactories. The Russian manufactories are about 40 in number, including 12 brandy distilleries, (with an annual revenue of £ 50,000) ; five tobacco factories, four of leather, 16 cotton-cleaning, one of oil and one of glass.

Educational. There are altogether 1,943 schools in the district, of these 6 are Russian and 5 half-Russian, half-native. In 1892, 18,279 boys and 392 girls received instruction. The expenses amounted to 114,526 roubles.

Sanitary. The Government medical establishment consists of :

- 4 doctors.
- 2 female doctors.
- 13 hospital assistants.
- 5 midwives.
- 13 vaccinators.

There are 2 hospitals in Samarkand and in Katta-Kurgan. In 1892 ; as many as 20,145 natives received medical aid.

III.—THE RESOURCES OF THE KHANATE OF BOKHARA.

The difficulty of forming anything like a true estimate of the extent to which supplies are available in the Bokharan Khanate, the extent of land under cultivation, the principal natural productions, amount of live-stock, &c., will be easily understood. From the latest Russian literature it appears that even they have as yet no reliable statistics, though possibly M. Lessar and the Russian War Office may know a good deal more than appears in print. For us, all we are able to do is to give a general description of the country, indicating the various oases and valleys which are described as fertile, and which prove their fertility by the numbers of towns and villages scattered through them and by the grain they are known to export.

In a native State like this no reliable figures of any sort can be obtained, as no organization exists for the collection of statistics, even of trade and commerce.

* Russia, however, has now placed her customs line along the Oxus, thus including Bokhara within the cordon. This is part of her general protective system and will probably interfere considerably to the detriment of the trade from Afghanistan and India, while enabling herself to develop the resources of the country and form depôts sheltered behind this line of outposts on the river.

Captain Picot, I.S.C., who has just returned from a journey through the Russian provinces in Central Asia, reports the import of a million roubles in *gold*, which he was told were "*for the purchasing of supplies.*" Captain Picot notes as a significant fact that the only place where Russian *paper money* is not yet current is Bokhara, so that this money may possibly be for use in Bokhara for the purchasing of supplies, &c., as above hinted.

In considering the question of resources the whole Khanate of Bokhara may be divided into three parts :—

The *Western*, including all the low-lying and steppe country from the Oxus up to the commencement of the off-shoots of the Hissar mountains.

The *Central*, including the mountainous Begships of Hissar, Shahr-i-Sabz, Shirabad, Baljuan, and the district of Kulab.

The *Eastern*, consisting of Karategin and Darwaz.

The Western Portion.

In the centre of the plain of which this portion is composed flows the Zarafshan river, and from the town of Zia-Eddin to that of Bokhara the country is closely cultivated and densely populated. This is the continuation of the Zarafshan valley (the Bokharan oasis) through which the Trans-Caspian Railway passes, and its fertility depends on the irrigation afforded by the Zarafshan river which, passing through Samarkand, is very nearly, and can be entirely, exhausted by the Russians in irrigating their own Samarkand territory, so that Bokhara can be left waterless at the will of her powerful neighbours—a fact which doubtless helps to keep the Khan and his people to a due sense of their dependence on Russia.

The water of the Zarafshan usually only reaches Bokhara in May, when it fills up the tanks, wells, *ariks*, &c., sufficiently for the rest of the year. The sand is encroaching very rapidly in this region.

To the south of the Bokharan oasis are extensive grass steppes, on which are raised the famous Karakul sheep. The grass, however, is burnt up by the sun in summer, and the country is very badly-watered, although wells do exist, and the Kashka Daria flows through it and forms the Karshi oasis. In a dry summer the Kashka Daria does not always reach the town of Karshi. A great deal of cotton is grown in the Bokharan oasis and tobacco in that of Karshi. The remaining products are the same as those of the Zarafshan valley, but of course the fertility is not nearly so great.

The Karshi oasis is about 22 miles broad by about the same in length and is covered with wheat and tobacco fields; the country is also rich along the Guzar Daria river as far as Guzar. The most important resources of this part of the country are, of course, the Bokharan sheep and then grain. Next in order comes the supply of horses, then donkeys, and, among the nomads, camels. Horned cattle are few and of bad quality. Karshi exports wheat, barley and salt, to Bokhara and Samarkand. The prices in 1893 were—

Wheat	...	...	...	3½ tangas per pood.*
Barley	...	...	...	2¼ to 2½ tangas per pood.

Between Karshi and the Amu Daria is a long stretch of sandy desert, but there is another cultivated strip of land on the banks of the river about Kerki called Lab-i-Ab.

Karshi and Shahr-i-Sabz†, together with Hissar, are the great feeders of Bokhara, Samarkand, and the Zarafshan valley in general.

The Central portion.

The fertile spots in the central portion of Bokhara are the Shahr-i-Sabz†, Shirabad, and Kugitang valleys, the Hissar district (Hissar, Denau, and Baisun), and the valleys of the tributaries of the Oxus (Surkhan, Kafirnihan, Surkhab), and the district of Kulab.

This portion is well-watered, but the mountainous nature of the country interferes with cultivation on a large scale, though cereals grow on the hills at heights above 3,000 feet without artificial irrigation.

* The *pood* is taken to equal 36lbs. English. The value of a *tanga* may be taken as five to a rupee.—*Picot*.

The *tanga* is equal to 20 kopeks Russian or about 4½d. English.—*Author*.

† Or Sharsbauz.

The Shahr-i-Sabz valley.

The Shahr-i-Sabz valley is watered by the fairly copious Kashka Daria river. Its extent is given by Yavorski as approximately 930 square miles. It contains the large Kishlaks of Kitab, Shahr-i-Sabz, and Yaka-Bagh, besides numerous smaller towns and villages. The population is computed by the same authority at about 30,000 to 35,000 families. The crops raised comprise rice, which is the chief crop and which is renowned throughout Turkistan, wheat, barley, millet, jugara (sorghum), sesamum, hemp, tobacco, cotton, and lucerne, which latter is cut five or six times in the course of the same year. Horticulture also flourishes, and fruit of all kinds is plentiful, including the vine, which is of an exceptionally excellent character.

The harvests both of fruit and grain are large, but there appears to be an export trade only in rice. The wheat yields fifteen-fold, rice from twenty-five to thirty, sorghum fifty to one hundred, and millet two hundredfold; in fact, the Shahr-i-Sabz Begship may be described as a purely agricultural one.

Shirabad.

The Begship of Shirabad, as regards resources, has lately been rather a poor one having suffered much from a raid made on it by the eldest son of the Amir on his retreat to India, when his father submitted to the Russians in 1868. There is little doubt, however, that it is of more consideration now. The most fertile portion appears to be that round the capital, 11 miles long, and watered by canals from the Shirabad river, which is thus almost exhausted. The country about Derband is also irrigated, and corn grows on the lower slopes of the surrounding hills. A good deal of cotton is grown in Shirabad.

Kugitang.

In the town of Kugitang is the only bazaar on the road from Guzar to Kelif. Kugitang is noticed by Kostenko and others, as a place from which Kelif might be supplied with corn and forage. Supplies would also be available from here to be stored along the main road lying in the Shirabad valley. The resources of the Kugitang valley are more abundant than those of Shirabad.

Hissar and Kulab.

For the latest details of resources in Hissar and Kulab we are indebted to the recent journey of Captain Picot, i.s.c., through Samarkand and the Zarafshan valley. The following information is accordingly taken from his report.

Hissar.

The Hissar District, consisting of Hissar, Denau and Baisun is described as the richest of the districts of Bokhara. Water is plentiful and the soil good. The people are said not to know what it is to want for water.

Wheat, barley and linseed are the principal productions, and a large trade is done in these grains with Bokhara, Samarkand and the Upper Zarafshan.

The prices in years of ordinary production are—

Wheat	...	...	...	2 $\frac{1}{4}$	tangas per pood.
Rice	...	...	...	6 $\frac{1}{2}$	" " "
Barley	...	...	...	2 $\frac{1}{4}$	" " "

Bazaars are held in one or other of the large villages every day of the week. Hissar imports its cattle and sheep from Kulab.

Kulab.

The Kulab District comprises—

Kulab, Mominabad, Baljuan and Khawaling.

About Kulab itself river water is abundant and the climate well suited for the cultivation of rice, which is the chief crop. Its price

varies from 3 to 5 tangas the pood. There is an export trade in rice to Chiab and Rustak, in Badakhshan, and to the northern part of the district, to Baljuan and Khawaling. Wheat and barley are greatly dependent on the rainfall, but crops are ordinarily raised sufficient for local consumption. Prices average from 4 to 5 tangas the pood in ordinary years. Rice ripens about 5th July; barley 25th June; wheat 5th July. Lucerne is grown, but the crop is of no importance; the people rely on the mountain and plain grasses for fodder for their cattle.

Vegetables are plentiful, and there is abundance of fuel. The mountains supply wood from the pistachio trees; the plains, brushwood.

The district of Kulab is also noted for its cattle and sheep, for which there is a good market in the Hissar districts. The cattle go to supply the local demand in Hissar, whilst the sheep are bought up by traders and finally find their way to the Bokharan and Samarkand markets.

Wheat, linseed and barley are raised in Khawaling. The production of wheat is compared, in quantity and price, with that of Chiab, (average price $1\frac{1}{2}$ to 3 tangas per pood; harvest seventeen fold). The land is reported of good quality. The wheat crop is largely dependent on the rainfall. Khawaling, &c.

The linseed crop is also of importance, and trade is done with Hissar in the oil which enters into consumption as an article of diet.

In Baljuan the production of cereals is barely sufficient for local requirements, and there is no export trade. Wheat is imported from Khawaling; rice from Kulab.

At Kangrud prices are low, and grain is available for export.

In general, prices in the Kulab district range low, as the country has no outlet for its surplus products, which would form a valuable reserve for troops operating in Badakhshan. Badakhshan itself is also rich in supplies; Chiab and Rustak are both large grain-producing centres, and have no outlet for their surplus; the supplies here would also prove invaluable to a force in Badakhshan.

The Eastern Portion.—Karategin.

This formerly independent Galcha State was annexed by Bokhara in 1877. It comprises a tract of country about 100 miles long and from 25 to 30 broad, situated in the valley of the Surkhab between Kata Karamuk on the Russian Alai valley frontier and the junction of the Khulias river on the frontier of Darwaz. It includes, besides the valley of the Surkhab, those of its numerous tributaries among which that of the Yasman Su is described as one of its best cultivated and most populous districts. The lands in the Yasman valley and some other districts are classed as "*abi*" (irrigated), but large crops are also raised on the "*lalmi*," (or rain-watered lands), the chief crops on the latter being wheat and barley; on the flooded lands are raised lucerne, tobacco, two kinds of millet, melons and garden produce. Fruit trees, such as apples, pears, and plums, are everywhere plentiful, as are also mulberries, the dried fruit of which is used for food by the inhabitants who export a large part of their corn to Darwaz and the upper Zarafshan valley. Prices of grain are low, $1\frac{1}{2}$ to 2 tangas per pood. Karategin.

The cattle of the country are of small size, but are in use everywhere for ploughing, and for dragging the sledges used in carrying corn, and in other agricultural operations. There is also a good breed of hill

ponies requiring no shoeing and much esteemed in the neighbouring countries. The Karateginians breed a peculiar kind of goat with long hair.

There appears to be very little building timber. About the snow-line of the various ranges grow the white hawthorn, barberry, and also strong juniper woods.

The people export corn, wool, sheep, dried fruits, and furs, (mostly marten and fox), and import rice, cotton, iron and a few manufactured articles. The trade is mostly carried on in kind. Communication is said to be open with Kokand all the year round.

Darwaz.

Darwaz is described in Section I of these routes. It is always spoken of as poor and of no importance as regards supplies.

Animals in the
Bokharan
Khanate.

As in the case of other natural productions of Bokhara no statistics are available regarding the amount of livestock in the Khanate. Sheep and horses are the animals to which most attention is paid. The sheep are mostly reared on the steppes stretching south of the capital to Kara Kul, and are called the "Karakul" sheep. These are very numerous and are famous for their fleece, which is of the short black or grey curly kind and is much in demand. Wool and hides thus form one of the principal exports of Bokhara, and the trade in wool is said to have doubled since 1889. In 1891, 492,601 poods were exported from Uzun Ada, chiefly from Bokhara, Panjdeh, and Khorasan. According to the Gazetteer, sheep are imported across the Oxus from Northern Afghanistan for the use of the Southern portion of the Khanate. As there are very few arabas in the Khanate and very few roads fit for wheeled traffic, nearly all the trade is carried by pack animals which, it may therefore be presumed, are sufficiently numerous. The chief animals used for the purpose are the camel and horse. The ass is also in use everywhere, but mostly for riding, and by the country people for bringing in their produce from the villages to the towns. The mule hardly seems to be used in Bokhara at all.

Cotton.

The cotton grown is all native, but is superior to the native article of Russian Turkistan, though inferior to that of Khiva. About 1,250,000 poods were exported in 1892.

GENERAL REMARKS ON RESOURCES IN CENTRAL ASIA.

Whatever may be the strategic and political gain to Russia of her Central Asian possessions, economically speaking, they can hardly be considered as anything but a loss up to the present, as the yearly deficit in the Turkistan budget conclusively shows. To remedy this state of affairs the Russians relied mainly on the development of the cotton industry, the idea being to make Central Asia capable of supplying the whole demand of European Russia for raw material, and thus render the mother country entirely independent of imports from America or Egypt. In 1890 the exports from Central Asia failed to do this by as much as $\frac{4}{5}$ ths of the total amount required, so that in spite of the rapid increase year by year in the amount of American cotton grown, much more is still required, if these expectations are to be realised. But from the Turkistan press we learn, that in Ferghana, the chief centre of the industry, only owners of 10 desiatines at least can grow cotton, as they have first to sow sufficient ground with corn for their own needs, and that no

more land is now available in that province and could only be made so still more at the expense of grain and food stuffs.*

Already we learn that the great development of the cotton cultivation has caused a corresponding rise in the cost of labour, and the necessities of life, and the prices of corn and cattle have doubled in the last eight years.

The above remarks, in all probability, apply equally to the Samarkand Province and other cotton-growing oases, so that if more cotton is to be grown, it is contended that this will only be possible by improving the communications with Ferghana and the other oases, so as to allow of the freer import into them of grain and breadstuffs from without. The best method pointed out is of course the extension of the Trans-Caspian Railway from Samarkand up to Tashkend and into Ferghana, and that this will be carried out in the near future there can be little doubt, and the revenue of the country will be proportionally increased; but, for food, the people will become more and more dependent on foreign importation, or in other words on the Trans-Caspian Railway, while in case of the large increase of supplies that would be necessary for a great campaign, this question of food resources becomes still more serious.

From a summary of the foregoing pages we see that the Syr Daria Province certainly produces no surplus foodstuffs after supplying its local needs (*vide* page 22); Ferghana apparently does not produce much, (see above, and Section I) and at present the Turkistan Gazette says that there is practically a famine there. In the Zarafshan valley it is found that the cultivation of fruit trees, vegetables, garden and cotton produce is far more profitable than the growing of cereals, and Captain Picot says the prosperity of the valley is greatly overrated, and that the water in the river is decreasing. There remains, therefore, only the Khanate of Bokhara to be considered. Now Bokhara is generally looked upon as a corn-producing country, and this to a certain extent it undoubtedly is, but it must not be lost sight of that the greater portion of its surface is covered by mountains or desert, and even in the oases, land is only cultivable by great labour and artificial irrigation so that it is not likely that the inhabitants in the fertile parts produce very much more than is profitably expended in supplying the needs of those less favoured in the Khanate itself. The fertile districts of Shahr-i-Sabz and Hissar are already employed in feeding the cities of Bokhara and Samarkand and the Zarafshan valley generally, and defective communications at present hinder the fullest advantage being taken of the resources of Kulab and Badakhshan. Bokhara is also subject to famines, which not only put an end to the supply of grain for the time being, but also cause the loss of enormous quantities of livestock. Finally, it must be remembered that communications all through Bokhara are very defective, and all supplies have to be carried on pack animals. Bokhara, therefore, cannot be altogether depended on. The Trans-Caspian Province of course can furnish nothing for outside demands, and that part of the grain supplies of Turkistan and Bokhara find their way thither is shown by the fact that in 1891, 2,113,079 poods of grain were carried westward by the Trans-Caspian

* Captain Picot, I.S.C., reports, indeed, that a reaction has already set in, and that $\frac{1}{4}$ million less poods of cotton are to be grown in future, as last year, 1892, a serious deficiency of grain was observed.

Railway, of which only 820,653 poods reached Uzun-Ada for export out of the country.*

It appears, however, from statistics of goods carried by the Trans-Caspian Railway that grain from European Russia is not, by that avenue at any rate, conveyed into Turkistan, so that it would appear that at present, with the aid of Khorasan and Bokhara, the Russian possessions in Central Asia are able to support themselves and their garrisons. But this is all. In case of the large and sudden increase, which would be occasioned by a campaign before magazines, &c., were complete, the Russians must undoubtedly be thrown mainly on their railway, tapping the Caucasus and corn-growing steppes of Southern Russia, and also to a greater extent than now, on Khorasan, Bokhara and Siberia.

Supplies for a column from Merv on Herat would thus manifestly be more easily kept up than for a column from Turkistan, for the former would have the railway leading direct to it, level country and a post road in front for the supplies to be forwarded on from the railway, and Khorasan to fall back on in case of a reverse, whereas in Turkistan and Bokhara we may take it for granted that even separated, a large force could not for any length of time be subsisted on the country alone, and bad communications and deficiency in means of transport would render it difficult to forward on supplies, even supposing that with the aid of the railway, abundance could be collected at the main bases of Samarkand and Bokhara.

Our information as to resources is unfortunately still far too meagre, and all that it is possible to do is to give the various indications by which a general opinion may be formed. Under all circumstances it appears likely that in a war against India or Afghanistan, a Russian army would be so greatly dependent on the one single line of railway to Uzun-Ada that anything happening to this would greatly interfere with the operations in front, and might even force a retreat or separation after a short time, for want of supplies and munitions of war.

* The fact of grain, in however small quantity, being available for export from Central Asia is noteworthy, and it becomes a question as to how this arises in face of the summary given of the different fertile districts, and also as to how the necessity for this export to a corn-growing country like Russia arises. It seems explicable on two hypotheses: first, that advantage of the railway is taken by the Persians of the fertile provinces of Khorasan to export their produce at a profit, this view being supported by the fact that notwithstanding all the efforts of the Persian authorities to prevent the export of grain into Trans-Caspia during the scarcity of 1891-92, their orders were persistently evaded and the trade continued; and, secondly, the necessity may be accounted for by the famine in Russia in those years. It is hardly to be supposed that, in general, grain would be a staple article of export to such grain-producing districts as the Caucasus and the steppes of southern Russia; we can therefore only conclude that the export of this in 1891 was due to anomalous circumstances.

CHAPTER V.

SHORT NOTE ON THE STRATEGIC SITUATION GENERALLY.

(a) GENERAL REMARKS.

Having now considered separately the geography, communications and resources of the country through which the routes in this section pass, the object of this note is to bring these together as briefly as possible, showing their bearing on the strategic position generally, and to add a few facts regarding the concentration and mobilisation of troops for the Kabul line of advance.

In all Russian schemes for the invasion of Afghanistan and India, and from the geographical conditions of the theatre, it is generally conceded that Russia is limited to the three main lines of advance to which the three Sections of this route book correspond. These are :—

I. The Pamir line of advance, based on Ferghana.

II. The Kabul or Turkistan line of advance, based on Samarkand and Bokhara.

III. The Herat line of advance, based on Merv or Sarakhs.

These three lines are convergent, and it will be important for us to know by which of them the strongest columns may be expected to move.

In this respect No. I may be disregarded; the advance over the Pamirs can only be a diversion to draw force from our resistance on the main line, or at most an attempt to combine with the Kabul line of advance by way of Karategin and Badakhshan.

The choice therefore lies between II and III.

One other alternative is that about equal forces will advance by both these lines. Under present conditions, in view of the advantage to be gained by the simultaneous occupation of the Herat Province and Northern Afghanistan, this seems very probable.

In 1878, when an invasion of Afghanistan and India was threatened, the Russian possessions in Central Asia were separated by thousands of miles of indifferent road, by Orenburg, from the ultimate base in Europe whence the army would draw its reinforcements, ammunition, medicines, and other supplies, and by hundreds of miles of desert from the Caspian Sea and the Caucasus. The most central and convenient point, at that time then, for concentrating the available troops of Turkistan and Western Siberia, and collecting local food and forage supplies, was Samarkand, which thus became the main base, and the road by Jam, Shirabad and Kelif, the line to be followed by the main column. The other two columns were small, *viz.* :—

The Amu Daria column from Petro-Alexandrovska ; and

A column from Ferghana, which was to join the main advance by Karategin and Kulab or operate by the Pamirs as might be feasible.

The construction of the Trans-Caspian Railway, and the extension to Merv in 1886, changed the whole aspect of affairs, and the main line of advance then became that from Merv on Herat, with the objectives of Kandahar and Quetta, but with the completion to Samarkand (1888), and rumours now constant of further extensions to Tashkend and

almost to the extreme eastern limit of the line of bases in Ferghana, the Turkistan Army Corps also starts from railway-fed bases, and seeing that its concentration and march would be accomplished in perfect security, that its road lies through countries where supplies, if not altogether sufficient are at least far more plentiful than on that from Merv, and that it would be moving by the shortest route into India, it seems more than likely that this line of advance has once more become the most important (especially in view of recent events on the Pamirs), although in the next concentration the line of communication with European Russia will lie, not as before through Tashkend and Orenburg but by railway through Trans-Caspia, probably continued on down the Oxus to Kelif and Mazar and from Merv or Dushak to Panjdeh and Herat.

Rumours are also now again prevalent of a line from Uralsk to Kungrad and down the lower course of the Oxus, striking the Trans-Caspian line at Charjui, and of course if this were constructed, such a line of communication would be safer even than the Trans-Caspian Railway, and it would tap Great Russia while the Trans-Caspian line continued to utilise the resources of the Caucasus. In fact if these two lines existed, nothing would need to be written regarding lines of communication at all, as they would be quite perfect, but fortunately for us the former is not yet commenced, and there seems very little chance of it for some time to come. Thus we have only the Trans-Caspian line to consider.

This line, at Dushak and Merv, is a very convenient one as a means of supplying reinforcements, &c., from the Caucasus and European Russia to troops marching on Herat, and it could be easily extended over level country to Panjdeh and further, whereas for the Turkistan columns, miles of mountain and desert country and also the broad stream of the Amu Daria lie in front of the railway-fed bases at Samarkand and Bokhara. Moreover, extensions to Tashkend and Ferghana, although they would materially facilitate the collection of stores at the bases, would do nothing to remove the difficulty of forwarding these on to the front of the army in the field.

But the Turkistan column is not expected to rely much on European Russia for reinforcements or supplies for its first movements. Supplies and transport sufficient for the advance to the Oxus would be collected locally, and for reinforcements the West Siberian (Semirechia) troops would be moved down to take the place of those now in Turkistan, which would thus be left free to move forward and form the field columns. The Siberian troops would then remain as reserves to these, and as garrison and *etappen* troops in Turkistan and Bokhara.

Once concentrated at Kelif and along the Oxus, the Turkistan column would at once proceed to occupy Northern Afghanistan and then follow the road, so frequently taken by former conquerors of India, by Bamian and Kabul. Having successfully occupied Mazar-i-Sharif and Badakhshan it would have the grain supplies of Afghan Turkistan (the most fertile portion of all Afghanistan) to rely on, and it would find the people of the country right up to the Hindu-Kush Mountains, if not favourable, at least not hostile, and the blow would be aimed in a direction in which we have, hitherto at any rate, been least prepared to receive it.

The important position on the line Mazar-i-Sharif, Tashkurgan, Kunduz, and Faizabad thus attained, and connection with the Merv-Herat columns established,* the Turkistan army corps could rest secure until either the railway were run down to it from Charjui by the left bank of the Oxus to Mazar, or extended to Panjdeh and Herat, if the main advance was to be from the latter place on Quetta. In fact it would only be possible to proceed to the great advance for the invasion of India, when the railway had been completed to this new front of Russia in Central Asia, or at least to Panjdeh or Kelif. Once the Trans-Caspian Railway is in touch with the army in Afghanistan then, if reinforcements, supplies, &c., from European Russia are required, they can be forwarded on with ease.

The advance from Samarkand on Mazar-i-Sharif may thus be quite as important, if not more important, than that from Merv on Herat in the first instance; but once the field armies gain touch of each other in Afghanistan, the importance of the Samarkand-Mazar line, as a line of communication, ceases; for, as already shown, it would be very difficult to keep up the stream of supplies over that line, and the drain of the campaign in men, horses, medicines, and, to a certain extent, supplies also, must be replenished by railway, and the great main line of communication with European Russia must lie by the only railway available, *viz.*, that through Merv and Trans-Caspia †

This may to a certain extent account for the storing‡ of supplies at present going on at Sheikh-Junaid and other places on the Russo-Afghan frontier, which will then be points on this line, and at Kerki on the important auxiliary branch of the main line formed by the Oxus and roads (or railway) along it, while, as far as we know, nothing is being done in this respect at Shirabad or other points along the north of the Oxus. It is probable that in the event of really serious designs against India, the railway will be extended *both* to Herat and Mazar-i-Sharif, for even though the main advance be by Kabul, the position of Herat on the flank and the supplies obtainable from the Hari-Rud valley would be of enormous importance.

Russia's activity in the direction of the Pamirs appears to have the strategical object of improving her position by making her frontier overlap our right flank, and her present exploration of Shignan and Roshan is evidently being carried out with a view to the future occupation of those provinces, so as to leave no hostile territory jutting in between her Pamir and Badakhshan lines of advance.

The great importance of the Pamir line of advance therefore consists in the fact that if persisted in and successful, it brings the troops

* Probably *via* Akcha, Shibargan and Maimana.

† Although, as stated in the chapter on Resources, the Merv columns would be more easily supplied than those from Turkistan, and that the supplies of Turkistan and Bokhara alone would probably be quite insufficient for a sustained campaign based on those countries, there is nevertheless nothing to show that ample stores and transport could not, *with time*, be quietly collected along the road to be followed by the Turkistan columns, or that the troops could not easily be fed by supply depots until the occupation of the objectives in Afghan-Turkistan was complete. Supply difficulties would commence in the further advance by Kabul, unless the troops were fed and equipped by the Trans-Caspian Railway, continued on to the armies by Panjdeh or down the Oxus to Kerki, Kelif, and Mazar. The importance of the situation of the strategic point of Kerki for all eventualities is very striking.

‡ At the close of 1893, it was calculated that the Russians had collected at Sheikh Junaid 3 months' supplies for 10,000 troops over and above local requirements. In July this year it was reported that there was then a 12 months' supply for a similar force. This proves that although the amount may be exaggerated it is at any rate considerable.

marching by it on to the very flank of our line of defence, or, if unsuccessful, the column is still available to march by a flank march entirely without risk to reinforce the Kabul column by way of the Alai valley and Badakhshan. It is also to be noted that the small column which could be moved over the Pamirs would be isolated and of very little assistance to Russia if her intention were to make her main advance on Quetta, while it might be of very great use to a column marching on Peshawar, so that her present interest in the Pamirs may perhaps afford us yet another reason to expect the great invasion to be by Kabul.

(b) THE KABUL LINE OF ADVANCE.

It now remains to sum up the conditions under which the concentration and advance of the Turkistan columns would be carried out.

Bases and
communications.

Bases and communications have already been described under the heading "Main lines of advance and communications" (Chapter III). The main base line is of course the railway, the chief points on it being Charjui, Bokhara and Samarkand; in rear of it, Tashkend is a base both for the Turkistan and Pamir advances, and advanced depôts for the Turkistan troops would be formed at Kerki, Kelif, Shirabad, Kabadian, and Kulab.

Communica-
tions between
bases.

Communications between bases would be by railway with the bases of the Merv advance, and with the Caspian Sea; by post road (probably new extensions of railway) with Tashkend and the bases of the Pamir advance in Ferghana; by post road *viâ* Tashkend, Chimkend, Aulia-ata, Pishpek, and Verni with Siberia, and to a certain extent the post road from Tashkend to Orenburg and Central European Russia may be expected to be used.

The post roads, generally, are dusty in summer, miry and uneven in other seasons, and often through steppes and deserts, where supplies, forage and fuel are scarce. Between the line of bases and the Oxus communications for an army are not good, though the main caravan road from Samarkand by Jam, Karshi, Shirabad, and Chushka-Guzar or Kelif, if not already so, would, without much difficulty, be made thoroughly practicable for wheeled traffic and the passage of troops of all arms. As far as Karshi the country is open, and parallel roads are available from the line of bases (see Chapter III, page 17), though scarcity of water might have to be encountered on some of them; onwards from Karshi to the river the country is very difficult, and some organisation would be required to prevent blocks occurring in the trains, though supplies are more plentiful. Communications eastward of Karshi in the Hissar Province are difficult and only fit for the passage of very small bodies, and little time would be saved by their use. Captain Picot says that troops marching to Badakhshan from Samarkand would go by Shahr-i-Sabz and Hissar to Kulab. The Route is not an easy one. Kulab is an important point for the advance on Maizabad in Badakhshan. On reaching Shirabad the main forces would probably spread out along the Oxus, crossing on a broad front so as to occupy simultaneously the various objectives. For points of passage of the Oxus see the Routes in Part II and Afghan Boundary Commission Routes, Turkistan Series. An auxiliary line of advance and line of communication is presented by the Amu Daria river and the roads on both banks of it.

The river itself is generally considered as not very much to be depended on as a means of forwarding troops and supplies from the railway to Kerki and Kelif, but in view of reports in the Russian press, regarding contemplated additions to the flotilla and the constant use now

being made of the steamers and barges, this important water route can not be altogether disregarded. Stores railed to Chirchik would be so easily transhipped and transported by it to Kerki, even if not to Kelif. The trip to Kerki is easily accomplished in four days, the return journey, down stream, taking only three. Even if the steamers cannot work on to Kelif, kayaks in large numbers could be collected and aid in swelling the general stream of supplies.

The roads on both banks are fair (that on the left being said to be the best) and projects for a railway accompanying the river have probably been thoroughly worked out, though want of funds prevents the construction at present.

A telegraph line already runs along the left bank of the river down to Kerki, and quite lately we hear that a line is to be run from this place to Hissar. Telegraphs.

The only other telegraphs in the country we are considering are those accompanying the main post roads and the railway.

The description in Chapter I shows that in no part can the country over which the Turkistan advance would take place, down the Oxus, be considered to be suitable for military operations. Fortunately for Russia, the only operations she need ever expect to find herself obliged to undertake here, would be marches, and possibly the forwarding on of supplies. In one respect the geography is even of great assistance to her, the nature of the country affording her complete immunity from attack from either flank during her concentration. The Hissar mountains are the chief obstacle to an advance on a broad front. No guns can pass them anywhere, and they have consequently to be turned at their western extremity at Jam. Geography.

The resources of the country have perhaps received more attention than any other part of this report. This their importance fully warrants. On the Merv line of advance Russia appears to be already storing supplies near the Afghan frontier so as to be ready for all emergencies, but, as far as we know, nothing in this way is as yet being done for the Turkistan column along the Oxus. The placing of a line of customs along this frontier, however, may, as already noticed (page 28), be the prelude to some such intention. It is hardly probable that any forward movement would be undertaken until large depôts had been formed and sufficient transport collected and organised. The following extract, taken from Russian confidential official staff papers, dated 1886, gives us the experience in respect of resources that the Russians gained from their attempted mobilisation in 1878, and, with the spread of the cotton industry and still inferior irrigation arrangements, it is not likely that any change for the better has taken place in the situation since 1886. Colonel Belyavsky says:—"The experience of 1878 showed clearly that a force of more than 25,000 to 30,000 men could scarcely be placed in line on the upper course of the Amu Daria from the troops of the Turkistan district. The provisioning of this force from the resources of the Khanate of Bokhara and of the Zarafshan circumscription, even exercising the utmost pressure upon the inhabitants, requires extraordinary exertions, and is then barely possible. The amount of transport necessary for the maintenance of the communications of the force can scarcely be less than 30,000 camels, to obtain which is also a matter of very great difficulty. Thus a force such as that above Resources.

given would meet with difficulties of supply and transport. Consequently the river Amu Daria acquires a special importance affording, as it does, a secure water route, with a good land road along its left bank. This river would connect the force with the Amu Daria region, in which there are always to be found extensive means of transport and a superabundance of grain and of other supplies. The Government, appreciating the importance of the river in this sense, and from an economical point of view as well, has deemed it necessary to introduce on it regular steam communication, which is to be secured by an occupation of the most important points of the river, and by connecting it with the Caspian Sea by means of an improved route."*

(c) CONCENTRATION AND MOBILISATION OF TROOPS FOR THE KABUL LINE
OF ADVANCE.

Present distribution of troops in Turkistan.

It does not appear that the Russians at present keep up in Central Asia a very much larger army than is required to garrison their subject and probably still latently hostile territory; it is therefore to be remembered that they could hardly advance these troops *en masse* until sufficient reserves had been concentrated to ensure the maintenance of order behind their field armies. This fact has not perhaps received as much attention as it deserves, especially in view of the fact that a war in front would seem to offer an opportunity to the natives, and that heavy pressure would be put upon them in regard to furnishing supplies. Still there is little doubt that by the moving down of the *newest* reserves, troops would be forthcoming sufficient for the first object of the campaign, *viz.*, the occupation of Northern Afghanistan. The calculation made out in the Intelligence Branch of the Quarter Master General's Department gives us an idea of the time in which this most important step would be accomplished.

It will be seen that the present necessarily scattered distribution of the troops, the indifferent communications between them, and the necessity of bringing up reserves before the field troops could be moved, are the chief obstacles to a rapid concentration and advance, but on the other hand, it is conceivable that these preliminary operations would be partially, if not finally, completed before the Afghans or ourselves were aware of their being in course of execution.

The following is an abstract of the numbers and distribution of the Russian troops in Turkistan and Western Siberia made up to 31st December 1893.

* Now the Trans-Caspian Railway.

Turkistan Army.

Stations.	Units.	Fighting strength.	TOTAL.
Tashkend (Hd.-qrs). ...	6 Battalions	5,904	8,159 and 24 guns.
	4 Squadrons	602	
	3 Batteries, F. A.	697	
	½ Sapper Battalion	403	
	1 Fortress Artillery Battalion	463	
Samarkand... ..	4 Battalions	3,036	4,948 and 14 guns.
	4 Squadrons	616	
	2 Batteries (1 Field 1 Horse Battery)	396	
Margilan	3 Battalions	2,952	3,952 and 14 guns.
	4 Squadrons	602	
* FERGHANA { Osh	2 Batteries (1 Field 1 Mountain Horse).	399	4,920
	1 Battalion	994	
	1 Do.	994	
	1 Do.	994	
	1 Do.	994	
Katti Kurgan	1 Battalion	984	
Petro-Alexandrovsk	3 Battalions	1,947	2,549
	4 Squadrons... ..	602	
Charjui	1 Battalion	984	984
Kerki	3 Battalions	2,952	3,459 and 8 guns.
	2 Squadrons	296	
	1 Battery, F. A.	211	
Local troops	12 Detachments, averaging about 200 men each (Infantry).	2,463	2,463 (These would probably remain in garrison.)
Total (including Ferghana)	31,434 and 60 guns.
			Infantry ... 26,068
			Cavalry ... 2,718
			Guns ... 60

* See page 42.

Ferghana.

In Ferghana there are 7 Battalions, 4 Squadrons, and 2 Batteries, total:—7,888.

6,888 Infantry.

602 Cavalry.

398 Artillerymen and 14 guns.

These would probably go for the Pamir column and to garrison the Ferghana Province. Reserves would not be required for this column, as it would probably be only intended as a demonstration. In case of the column being intended to be stronger, the province could be reinforced from Siberia by Verni.

The following is an abstract of the troops in Western Siberia at war strength, which would mobilise and move down to garrison Turkistan and form reserves to the Turkistan column.

Western Siberia.

	Field troops.	Reserves.	Local corps.	TOTAL.
Infantry	6,888	19,488	4,034	31,310
Cavalry	3,318	6,636	...	9,954
Guns	38	...	...	38

Concentration
of troops for the
Turkistan
column.

For full details regarding the probable arrangements for the concentration of the various units, the reader must be referred to the Intelligence Branch Calculation. Space does not permit of the whole being gone into here as fully as might otherwise be desirable; all that it is possible to do is to give the general conclusions arrived at regarding the mobilisation and time taken in the advance.

Strength.

The strength of the Kelif (Turkistan) column in General Kuropatkin's scheme 1886, and the strength as taken in the Intelligence Branch Calculation is as follows:—

First line ... ..	...	8 Battalions of Infantry.
" ... ..	...	14 Squadrons of Cavalry.
" ... ..	...	6 Batteries, Field Artillery.
" ... ..	...	6 " Horse "
" ... ..	...	2 " Mountain Artillery.
" ... ..	...	Rocket corps.

Reserves—

(To be stationed at Tashkend, Samarkand, and Bokhara)	...	13 Battalions.
	...	19 Squadrons

TOTAL (ABOUT)	...	20,000 Infantry.
		5,000 Cavalry.
		100 Guns.

This strength, even now, would probably be as much as could be spared to mobilise and march at once and would be fully sufficient to attain the first object of the campaign, *viz.*, the occupation of Mazar-i-

Sharif and the other strategical points in Northern Afghanistan and moreover, it would probably not be possible to feed and equip with the necessary transport a much larger force.

Seven days are allowed for each unit in which to mobilise.

Time taken.

The Kerki garrison, 3 Battalions, 2 Squadrons, and 1 Battery, would be first on the move, and on the 10th day would be at Kelif. By the evening of the 12th these troops would be across the river. Opposition would be *nil*, or so little that the passage could not be prevented, well-covered as it would be by the fire from the Bokharan shore within 500 yards of the opposite bank.* On the 12th day this advanced guard would already be on the Afghan side ready to cover the passage of the other troops as they arrived, collecting boats and possibly constructing a rapid pontoon bridge.

The troops from Samarkand and Katti Kurgan (cavalry two days ahead) would cross at Kelif, Chushka-Guzar, and Patta-Hissar about the 23rd day. The troops from Tashkend would not reach the river till the 36th day.

The Intelligence Branch Calculation allows for certain units for the Kelif concentration, being brought from the Caucasus, which brings the time of complete concentration at Kelif of the force suggested, to 41 days, or, marching at the rate of 10 miles a day, 46 days, but from the numbers of troops now stationed in Turkistan it is probable that the required force will be available without having recourse to Europe at all, in which case the whole concentration would be complete in 36 days from the date of first order.

The concentration of Reserves for the Turkistan Army Corps is given in the Intelligence Branch Calculation, at page 11. Thirteen Battalions and 19 squadrons would be collected complete at the main bases (Tashkend, Samarkand, and Bokhara) by the 59th day (or, marching 10 miles a day, by the 75th) most of them by the 43rd day. The local detachments would remain to garrison the country at the stations they are now in.

The advance against Mazar-i-Sharif could be very well undertaken by the Kerki and Samarkand garrisons moving on the morning of the 23rd day. In four marches they would be before Mazar-i-Sharif, which, being practically unfortified and having only a very small garrison, would be carried by a *corp de main* on the 28th day from receiving the order.

Further concentration for occupation of objectives.

Tashkurgan would be occupied almost at the same time, and, probably very soon after, Kunduz, as troops continued to arrive.

Finally, the important fact must not be lost sight of that all the preliminary operations above detailed may be completed without our knowledge and Mazar-i-Sharif occupied in 4 days!

(d) THE BOKHARAN ARMY.

The greater part of the Turkistan advance to Afghanistan lies through the Khanate of Bokhara. This is not yet Russian territory

* The Afghan Boundary Commission reported, however, that the Kelif ferry is commanded from the *south*, and that it would be impossible to force a passage if the hills on the Afghan shore were held by determined troops. The Russians certainly appear from their maps to attach more importance to Chushka Guzar and Patta Hissar as crossing places than to Kelif.

and the Amir still possesses an army. This therefore is a factor which enters into the consideration of the question of a Russian advance against Afghanistan and India.

The Bokharan regular army is variously estimated by different authorities, Russian and English, at from 8,000 to 25,000 men, the former estimate being probably much nearer the mark. All agree that its fighting capacities are very inferior, and hitherto it has been organized and kept up in truly oriental lax style. Nevertheless Colonel Belyavsky, in 1886, strongly insisted on the danger of leaving these fanatical troops (estimated by him at 15,000) in the rear of a column advancing through the Khanate to Afghanistan, and recommended the suppression of the army altogether, "as they could never be of any use" to Russia. This has, however, not been done, and the Turkistan Press now reports, that since the late visit of the Amir to St. Petersburg it has been decided to remodel the army entirely on the Russian system, and gradually to introduce general conscription. This probably means Russian officering, and consequently a certain increase of Russia's offensive strength in Central Asia. Russia is not much prone to enlisting native troops, for with her, European soldiers are cheap and plentiful, but it seems as though in this case she is not above making use of the material ready to her hand, (which would "contain" at least one strong Anglo-Indian Brigade), and most probably the idea is to send the Bokharan troops *to the front*, out of their country, thus removing all danger of an outbreak in the rear, and at the same time saving her own men by making the Bokharans food for powder. From an insurrection in Bokhara, however, Russia has really nothing to fear, for her clutch is on the capital, and even at her best Bokhara was completely subdued in ten days. The only possible danger would be small guerilla annoyances to her line of communications while the troops were seriously engaged in front, but the Russians are not a people who do things by halves. All likelihood of any such occurrences even as these would have been completely removed before a Russian army advanced through the Bokharan country.

(e) CONCLUSION.

Concluding
remarks.

In conclusion it must be remembered that the situation and movements described in this report are those which will probably precede, not the actual attempt to invade India itself, for the frontiers are as yet too far apart, but the first campaign in which Russia will seek to establish herself firmly in Northern Afghanistan (up to the Hindu-Kush), and in the Herat Province, and fertile Hari-Rud valley. This will be followed by railway communication up to this new front, and our own will then, it is to be hoped, have been also advanced to a strategic line decided on by our Government.

It is in the last degree unlikely that even for the occupation of Herat and Mazar a *campaign*, in the ordinary sense of the word, will be necessary, for, unless forced by totally unforeseen circumstances, Russia will never be so blind to her own interests as to resort to force of arms to gain an object which she might equally hope to attain without a drop of Russian blood being expended. Intrigues, reconnaissances, "scientific" explorations, &c., will go on advancing the frontier on the

Pamirs, and in Shignan and Roshan, while far away, on the other side, her influence will have been growing in Khorasan and Northern Persia, and stretching south towards Sistan and the sea. The final and complete incorporation of Bokhara will be another great step towards the end in view, and this step, of course, will be taken, whenever it shall seem expedient. The imperial boundary line will thus be drawn ever closer and closer round the territory of the Afghan Amirs, and from the new positions, agents will penetrate further and further into the heart of the country, spreading disaffection and fostering discontent in all directions till Russia is asked to take over in peace the strategical points she covets. Where we lay down a boundary, the overstepping of which will mean war, Russia stays her advance for the time being and turns her attention elsewhere, but only to resume the forward movement when the political state of affairs renders it possible. Nothing is further from her thoughts at present than a war with us for the dominion of Asia, for she has her troubles and ambitions in Europe, and the organization of her Central Asian territories is as yet far from complete.

On the other hand, we must not forget the popularity among the Russian people of the so-called "military promenade" to Calcutta, and it is a significant fact that as far back as 1878, when Russia occupied an infinitely inferior position from which to make her descent, on the first rumour of probable war with ourselves in Europe, her Central Asian troops were put in motion and an embassy despatched to Kabul to try and enlist the aid of the Amir of Afganistan. The avowed intention of Russia even at that time being, in the words of the General Staff themselves, "to compel England to look to her own East Indian Possessions."

APPENDIX A.

The Organization of a Customs Department and Frontier Supervision in Central Asia.

THE gradual expansion of our territorial possessions in Central Asia, and the extension of our sphere of political influence in those parts, has evoked the unremitting solicitude of the Government for the consolidation of the economic welfare of the native population, and for the establishment of local Administrations in conformity with the conditions of existence of the inhabitants. New and large markets have been opened up for the sale of the products of our home industries *pari passu* with the establishment of external and internal organization in the acquired possessions.

At first our feeble commercial progress in Central Asia, hampered as it was by the difficulties due to the absence of proper means of communication, and suffering from severe foreign competition, more especially Anglo-Indian, stood in need of the special attention and support of the Government, which latter, estimating at its true value the importance of the markets of Central Asia to our home industries, took exceptionally energetic steps to meet the interests of that trade, and whilst adopting a series of measures for promoting the development and improvement of the means of communication between the commercial centres in the interior of Central Asia, at the same time considered a thoroughly organized surveillance of the external frontiers to be one of the most efficacious means for protecting the internal trade from foreign competition. In order to attain this end, amongst other organizing measures for the administration of that region, it was considered expedient to prevent goods of foreign Asiatic production or Western European manufacture from gaining admittance to the local markets, with the exception, however, of certain goods and products which, though forming essential necessities of the local population, cannot be produced either in the region itself or in any other part of the Empire, such, for instance, as green tea, indigo, and muslin of Anglo-Indian manufacture.

A military police inspection was established in the towns in the interior of the country to guard against the introduction of other foreign goods into the local markets. The officials of this force were also entrusted with the collection of customs duties on goods, the importation of which from neighbouring States was permitted. In course of time, however, it became evident that the ground-work of a Customs supervision so established was not entirely in conformity with the actual state of the trade in the country, and that the external frontiers were not adequately protected from the introduction of contraband goods into the region; in fact, the excessive development of the contraband trade was testified to by the Governor-General of Turkistan, and resulted in a considerable falling-off in the Customs revenues. In consequence of this, the Customs Department of that region, which Department was then under the administration of the Ministry of War, was

in 1886 transferred to that of the Ministry of Finance, which, on including it in its jurisdiction, devoted attention to the gradual introduction of a more effective supervision over the exterior frontiers of the region, and to the organization of Customs establishments more in accordance with the commercial requirements of the locality. At the same time the original prohibition of the import of European manufactures and Persian products was left in force.

Simultaneously almost with the introduction of measures for strengthening and placing the Customs supervision in the territory of Turkistan on a better footing, the Ministry of Finance turned its attention to the adoption of measures in other parts of our Asiatic possessions, namely, those which now form the Trans-Caspian Provinces. Their annexation to Russia opened up the most convenient and natural route for Persian and Central Asian trade, and the construction of the Trans-Caspian Railway established uninterrupted commercial communication between Russia and the Persian Provinces lying nearest to our frontier, and facilitated the further development of commercial relations between our inland centres and the region of Turkistan and Bokhara.

However, the investigations carried out in 1885, under Imperial sanction, regarding the external frontier of the Trans-Caspian territory and its commercial and economic conditions proved that the trade of that country did not at that time necessitate the establishment of a Customs supervision on the same lines as that in force on the other frontiers of the Empire, and the Ministry of Finance therefore at first confined itself to rendering the local population familiar with the imposition of customs duties by fixing them at the same rate as was previously charged in the Province of Merv, *i.e.*, an *ad valorem* duty of one-fortieth ($2\frac{1}{2}$ per cent.) on goods imported, and appointed special collectors on the caravan routes from Persia and Afghanistan to levy the same; the collectors were chosen from among the local inhabitants and were remunerated at the rate not exceeding 10 per cent. of the sums collected. These measures, however, being of an experimental character and adopted to meet the requirements of the moment, proved, in a comparatively short time, unsuitable to the rapidly increasing movement of trade in the region, which fact served to convince the Ministry of Finance of the pressing necessity of establishing an efficient and regularly organized Customs supervision in these parts, seeing that the absence of such organization led to the restriction of the trade in such highly important articles of Russian production as sugar and cotton goods. The restrictions took the shape of the suspension of the excise drawback on sugar exported abroad by way of the Trans-Caspian Provinces and the repeal of the Law of the 3rd February, 1892, which provided for the drawback of the duty on cotton goods exported abroad through those provinces, seeing that in the absence of any frontier supervision a possibility would be opened up for the reimportation of such sugar, and as far as cotton goods are concerned there would be no possibility of controlling the actual export. On the other hand, the adoption in the district of the Customs measures requisite for the removal of such material restrictions of our industries could not be easily attained, on the ground that the extent of the external frontiers of the district would necessitate the granting by the Exchequer of very large

sums for the organization and maintenance of an uninterrupted frontier and Customs establishment, which expenditure would not be justified by the Customs revenues actually derived therefrom. Moreover, if such a course were adopted, it would become necessary to maintain a permanent cordon along the frontiers dividing the Trans-Caspian Provinces from the Khanates of Bokhara and Khiva, which latter enjoy the privileges of independent States as far as questions of Customs are concerned. If the frontiers of these provinces conterminous with those Khanates were to remain without frontier supervision, not only foreign goods, but also sugar, on which the drawback had already been paid on its exportation abroad, and likewise cotton goods, would easily find access duty free into the district, and thence on to the Caucasus and European Russia, and thus the object of the establishment of a constant Customs supervision within the region would evidently be defeated.

The only manner in which it was considered possible to remove the difficulties mentioned above was by including Bokhara and Khiva in the sphere of our Customs influence. The proposals elaborated on this subject were honoured by Imperial approval on the 7th August 1892, with the proviso that this decision of His Imperial Majesty should be communicated to the Emir of Bokhara, and should be accompanied by an explanation that a certain portion of the net revenue derived from the customs duties on merchandize entering Bokhara would be applied to the execution of works generally beneficial to that country.

The Imperial Decree regarding the inclusion of Bokhara within our Customs jurisdiction gave the Ministry of Finance the possibility of more rapidly carrying into effect the necessary measures for the organization of Customs protection in the Trans-Caspian Provinces.

Having the above object in view, the Ministry of Finance recognized the necessity of deputing several of its officials to proceed to Central Asia in order to study and determine, in conjunction with the competent authorities, all the details of the Customs supervision which it was proposed to establish. The person who was placed at the head of this expedition was instructed, after holding an inquiry on the exterior frontiers and studying local conditions, to take part, as representative of the Ministry of Finance, in the negotiations with the Emir of Bokhara respecting the impending inclusion of Bokhara in our Customs sphere, and then to draw up detailed proposals for the organization of a Customs and frontier supervision on the frontiers of the Trans-Caspian Provinces and Bokhara. On the basis of the detailed information collected by the above Commission, it has now been found possible to work out a plan for the organization of a regular Customs and frontier supervision in the before-mentioned districts of Central Asia. The proposals elaborated for the establishment of a Customs Board and frontier guard were submitted for approval to the Governors of Trans-Caspia and Turkistan and were communicated to the Emir of Bokhara, who notified his acquiescence in the said proposals. The project for the new organization, having been examined by the Imperial Council, received His Majesty's confirmation on the 6th June 1894 and came into operation on the 1st July last.

According to the new law, Customs supervision is established within the limits of the Trans-Caspian Province and on the right banks of the rivers Panjah and Amu-Daria. All traffic across the frontier will be forbidden except at certain fixed points, where foreign goods can be passed in and the duty paid on them, and native goods can be passed out, and where also the ingress and egress of travellers will be permitted.

Custom-houses of the first class will be established at Askabad and Bokhara; the staff of each shall consist of a manager, two members (one of whom shall act as Treasurer), a book-keeper and duty computer (who shall also act as Secretary), an overseer of bonded stores, and two interpreters (who shall also act as Assistant Overseers of bonded stores); a Custom-house of the same class and with a like staff, but with one interpreter less, shall be established at Kelif.

It has not yet been finally decided at what other places on the frontiers of Central Asia Custom-houses will be established, nor the number and class of same, seeing that at the present time it is impossible to foresee what direction the trade of Central Asia will take on the establishment of an organized Customs supervision.

The Minister of Finance has been authorized to open, by agreement with the Minister of War, and when necessary with the Minister for Foreign Affairs, additional second and third class Custom-houses along the new Customs line, and to institute Customs barriers at points where travellers shall be permitted to cross the frontier; to decide upon and change the places at which such establishments shall be situated, and to make changes in the staffs thereof, provided, however, that the limits of the sums assigned for the maintenance of the Customs supervision be not exceeded.

An "Administration of the Trans-Caspian Customs Circuit" shall be formed for the purpose of superintending the frontier supervision and Customs institutions in the Trans-Caspian Province, under the control of which the Uzun-Ada Custom-house is also to be included; it shall consist of a Chief of the Customs Circuit, a Circuit Controller of Customs, and two special service officials. The frontier supervision and the Customs establishments along the banks of the rivers Panjah, and Amu-Daria and likewise the Bokhara Custom-house are to be subordinate to the Chief of the Turkistan Customs Circuit on the basis of the General Regulations.

On the installation of a frontier and Customs supervision on the external frontiers of the Trans-Caspian Province and on the Bokhara-Afghan frontiers, the frontier supervision and Customs establishments of the Amu-Daria, Katti-Kurgan and Samarkand sections now existing within the boundaries of the Turkistan Customs Circuit were liable to be disestablished.

For the present, however, it has been considered necessary to retain these establishments as well as the force of guards, for the following reason: It having become prematurely known at Bokhara that the Khanate would shortly be included in our Customs sphere, the merchants of that town (which has long been an important tea market)

gave orders for very large quantities of tea, and the bulk of these orders have already been executed and the tea delivered. Had the Customs lines that at present protect the Turkistan territory and the districts of Western Siberia from the entrance of tea from Bokhara duty free been withdrawn simultaneously with the introduction of the newly-organized supervision, the result would have been not only to diminish the Customs revenue collected on teas consumed in Turkistan and the districts adjoining Bokhara and in Western Siberia, but would also have seriously dislocated the regular tea trade in those districts, since tea that had paid duty would not be able to compete with tea that had not been taxed. In like manner, large stocks of sugar, exported from Russia under the previous Regulations, and on which the excise drawback had been paid, are still held in Bokhara; consequently, sugar exported from Bokhara into Turkistan is, at present, only released from the Custom-house on the repayment of the excise.

In order to prevent speculative sales of tea by Bokhara merchants for forward delivery, it is left to the discretion of the Minister of Finance to fix the date at which the existing Customs establishments shall be suspended.

Seeing that insuperable difficulties would be experienced in procuring gold for the payment of Customs duties, the duties on goods imported into Turkistan and Trans-Caspian Customs circuit will be levied in paper roubles in the same manner as established for the territory of Turkistan.

In view of the fact that when the new Customs institutions first come into operation, the population of the eastern part of Bokhara and those regions remote from the Russian possessions would experience considerable difficulty in procuring even paper roubles for the payment of duties, it has been left to the Minister of Finance to decide in what coinage and at what rate of exchange the Customs duties on goods imported through the Custom-houses situated along the banks of the rivers Panjah and Amu-Daria shall be levied.

At the Uzun-Ada Custom-house, where even at the present time Customs duties on Persian goods are paid in gold owing to the proximity of Baku, where gold can at all times be procured without any great difficulty, all duties will continue to be levied in gold, and this, in view of the necessity of maintaining a uniformity in the collection of Customs duties at all the Caspian ports, and thus preventing an artificial attraction of goods to one or the other of those ports simply on account of the possibility of entering import goods at one place on terms more favourable to the consignees than at another.

Simultaneously with the coming into operation of the new Customs establishments in Trans-Caspia, the 2½ per cent. *ad valorem* duty which was imposed as a temporary measure will be abolished.

In view of the exceptional conditions of life in these uncivilized regions, it has been considered necessary to place at the disposal of the Minister of Finance a special annual sum, amounting to about 11,000

rupees (1,100L.), to be distributed in the form of supplementary remuneration amongst the officials serving in the establishments along the banks of the rivers Panjah and Amu-Daria, and in the town of Bokhara.

Furthermore, the Minister of Finance is authorized to enact Regulations as to the Customs procedure in the reception, examination, clearance, and delivery of goods at the newly-organized Customs establishments, to make same publicly known, and also to decide which of the penalties set forth in the Customs Code for violation of the Regulations of that Code shall be made applicable in the said establishments.

Further, in view of the necessity of conforming to the needs and requirements of the population ignorant of Customs, formalities and procedure, of taking into consideration local customs, the Minister of Finance has been authorized to decide, in conjunction with the Minister of War, what scale of Customs duties shall be imposed on goods imported through the abovementioned Custom-houses, and what foreign goods shall be prohibited, duly observing the treaties existing with neighbouring States in this respect.

In view of the exceptional topographical, ethnographical, and commercial conditions existing in Trans-Caspia and in Bokhara, it has been decided, as regards the frontier surveillance, that an uninterrupted cordon along the external frontiers, similar to that maintained on our European and Trans-Caucasian frontiers, is as yet inexpedient, and in some places is utterly impossible. It has therefore been decided to instal posts of frontier guards only on the most important trade routes and at the permanent crossings of the rivers forming the frontier line (the Amu-Daria and the Panjah). These posts have been considered necessary as a temporary measure in order to organize a force of volunteers to be drawn from among the local inhabitants, which will be subordinated to the senior of the three soldiers belonging to the corps of regular frontier guards stationed at each post. It has been considered unadvisable at the outset to furnish the different posts with full complements of exclusively Russian soldiers, and this principally because it will be difficult for men of the rank and file and of Russian origin (owing to their ignorance of the language, manners, and customs of the local population, and of the frontier roads and the nature of the commercial traffic), to carry out the required supervision in a satisfactory manner, whereas the native inhabitants, under the orders of tried Russian soldiers of the abovementioned corps (owing to their knowledge of the roads, their acquaintance with the particularities of the local trade, and knowledge of the language), will be extremely useful, and at the same time will be satisfied with very low pay, and no special arrangements as to quartering them will be necessary seeing that they can live in "kibitkas." In course of time, as the Russian soldiers learn the native language and become acquainted with the roads and the movement of the goods traffic, their number will be increased by the addition of men of Russian origin taken from the ranks, till finally all the natives will be replaced by Russians.

The frontier supervision in the Trans-Caspian Customs Circuit and along the banks of the rivers Panjah and Amu-Daria is constituted in

accordance with these outlines and with the following complement of officers and men, *viz.*, 2 staff officers holding the rank of Colonel, with the rights and privileges of Brigade-Commanders of separate corps of the frontier guard, each of whom shall bear the title of "Staff Officer administering the Frontier Supervision in the Circuit;" 2 senior orderly officers as assistants to the said staff officers, who shall administer the current business and the office of the frontier supervision; 9 Chiefs of stations who shall be senior officers, with the rights and privileges of Commanders of sections of the above mentioned corps; 2 doctors and 9 hired dressers, and, as a temporary arrangement, 298 mounted and 21 unmounted men from the corps of frontier guards and 472 voluntary hired Jigits.

In view of the facts that some of the Custom-houses will be situated at a considerable distance from the frontier (as, for instance, that of Askabad, which is situated at a distance of 47 versts from the frontier), it is proposed to impose the duty of convoys on the native Jigits.

The Minister of Finance is authorized to place at the disposal of the local Custom-houses a sufficient number of Jigits to perform the duty of conveying goods from the frontier to the Custom-house, the Customs branch paying a sum equivalent to that assigned for the maintenance of such Jigits.

Two transportable orthodox churches, with a chaplain and chaunter attached, shall be established at points on the frontier considered most convenient by the local authorities.

The officers, doctors, and chaplains attached to the force about to be organized shall enjoy all the privileges and rights conferred by Imperial Decree of the 15th June 1887 respecting the special privileges of Imperial service in the Military Department in distant parts of the Empire.

The sum necessary for the maintenance of a Customs branch and frontier supervision in Central Asia is estimated at 516,002 roubles 61 copecks (51,600%) per annum, and from the 1st January 1895 will be included in the Budget of the Ministry of Finance. For the expenditure during the current year provision has already been made. The proposed expenditure for the organization and maintenance of the Customs and frontier supervision in Bokhara and Trans-Caspia must be considered fully self-redeeming, seeing that the estimated Customs revenue from those provinces will more than cover those expenses in the first few years, and, over and above this, our home industries will acquire in Bokhara the command of vast markets entirely freed from the unstable conditions of foreign competition.

PART II.
ROUTES FROM RUSSIAN TERRITORY IN
CENTRAL ASIA.

Route No. 1.

FROM KAZALINSK (FORT No. 1) TO TASHKEND (POSTAL ROAD).

Authority—KOSTENKO (1880),* ROUTE 1 AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versets.	Versets.	Miles.	
	KAZALINSK.				General direction south-east along right bank of Syr Daria. This is part of the post road from Orenburg to Tashkend. There should be 16 horses at each station (Von Stumm, 1895). The telegraph from Orenburg accompanies this route throughout.
1	BASKARA ...	16½			Russian town of about 3,939 inhabitants on right bank of Syr. Post and telegraph station. Kazalinsk was founded on the site of the old Racem fortifications. It has now sunk to a position of very minor importance.
2	MAILI BASH ...	22			The road is, for the most part, only a track through the desert marked for miles by mounds of earth. It is, however, fit for the passage of troops, wheeled transport, guns, &c., throughout.
3	AK SWAT ...	23½			
4	AK JAR ...	21½			
5	ILCHIDAI ...	27½			
6	KARA TUGAI ...	25			
7	KHOR-KHUT ...	17½			
8	KARMAKCHI (FORT No. 2).	16½	174½	116½	
9	VICTOROF ...	20½			
10	FIODOBOF ...	18			
11	VLADIMIROF ...	24½			
12	ALEXANDROF ...	25			
13	SEMENOF ...	16½			
14	PETROVSK ...	22½			
15	AMAN TASH ...	16			
16	DMITROF ...	11			
17	PEROVSK (FORT)	22½	353½	---	On right bank of river. Ferry over Syr Daria, 1 mile wide, leads to road south-west to Petro-Alexandrovska (Route No. 9). The river here freezes for an average of 87 days in the year. Town is watered by the <i>arik</i> Sarkarum besides the river. Mud walls have been raised to protect the town from floods.
	Carried over ...		353½	234½	

NOTE.—All Kostenko's Routes are dated 1880; to avoid repetition the date is not given hereafter.

ROUTE No. 1—*contd.*FROM KAZALINSK (FORT No. 1) TO TASHKEND (POSTAL ROAD)—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versta.	Versts.	Miles.	
	Brought forward ...	...	353½	234½	
18	BURUBAI ...	16½	...	...	The post station is about 100 yards from the Syr. Grass plentiful.
19	BER-KAZAN ...	12½			
20	JABTI-KUM ...	17½			
21	SARI-CHAGANAK ...	19½			
22	TAR-TUGAI ...	17½	440	201½	
23	JOLEK (FORTIFIED POST).	21½			
24	MESHEULI ...	22½			
25	JALPAK-TAL ...	21½			
26	TUMEN-ABIK ...	26½			
27	YANI-KURGAN ...	21½			
28	AK-KUM ...	25½	...	...	Road leaves river and passes through open country with scattered undergrowth.
29	TASH-SWAT ...	16½			
30	SAURAN ...	23			
31	KOSH MIZGIL ...	23½			
32	TURKISTAN (TOWN OF—)	19	602½	438½	Small town, partly in ruins. Surrounded by gardens. Caravan routes from here lead to Turgai, Akmolinsk, and Karakaratinsk.
33	IRAN ...	24			
34	NAGAI-KURA ...	21			
35	AK-MOLLI ...	21½			
36	BUGUN ...	23½	...	...	Bugun stream crosses road east to west.
37	ARIS ...	25½	...	...	Cross river Aris; sometimes flooded.
38	DURU-JAB ...	21½			
39	CHIMKEND ...	17½	816½	540½	Flourishing town situated on the Badam, a tributary of the Aris. Population 5,680. Commanded by a citadel on an almost inaccessible height. Main post road from Central Siberia joins.
40	AK-TASH ...	15½			
41	BEKLAB-DEK ...	13½			
42	SHARAPKHANA ...	22			
43	JEBI ...	12½			
44	AK-JAB ...	16½			
45	KHISH-KUPRUK (KAPLAN-DEK).	15			
	Carried over ...		912½	608½	

ROUTE NO. 1—concl'd.

FROM KAZALINSK (FORT NO. 1) TO TASHKEND (POSTAL ROAD)—concl'd.

Number of stages.	Name of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
			Verss.	Verss. Miles.	
	Brought forward ...	...	812½	608½	
46	TASHKEND ...	18½	...	...	Tashkend, the capital of the whole Turkistan country and the chief town of the Syr Daria province, is situated in the valley of the river Chirchik on the caucals (<i>ariks</i>) Boss-su, Chaul, and Salar. This is the seat of Government and the place of residence of the Governor-General of the country and of the Military Governor of the Syr Daria province. The town is divided into the Russian and Native towns; the latter is surrounded by a high mud wall in which there were formerly 12 gates, and is divided into 4 different <i>sections</i> or quarters, in each of which different trades are carried on. In the town there are altogether 300 mosques, 17 medresses, 60 Mussalman schools, 4 Russo-Sart schools, 20 Caravanserais, 8 large baths, 1,600 shops, and as many as 100,000 inhabitants of both sexes. Russian Tashkend is laid out with villas and straight streets very much on the pattern of towns in European Russia.
			830½	626½	

Route No. 2.

FROM KARMAKCHI (FORT No. 2) TO PEROVSK.

Authority—KOSTENKO, ROUTE 65.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KARMAKCHI (FORT No. 2).					General direction south-east along Syr Daria river. Alternative to stages 8 to 17 of Route 1. Stage 8 of Route 1.
1	NASHLADA SAKSAULA (<i>heap of sazaul.</i>)	13	2½	13	2½	
2	BUKABAI-KUL BOUND- ARY	15	2½	28	4½	
3	BAUZAK BOUNDARY ...	16	4½	45	½	
4	LAKE KUM-KUL ...	16	4½	61	4½	
5	KUL-IKE BOUNDARY ...	16	4½	78	½	
6	FORT PEROVSK ...	16	4½	94	4½	Stage 17 of Route 1. When the district was formed, the postal road passed along this bank for several years. The disadvantage of the route is that the Syr has to be twice crossed (at Fort No. 2 and Perovsk), and also the Kuvan Daria has to be crossed. During floods the crossing is very difficult and sometimes impossible. The road has now almost entirely fallen into disuse.

Route No. 3.

FROM KAZALINSK TO NUKUS.

Authority—KOSTENKO ROUTE 101, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versts.	Versts.	Miles.	
	KAZALINSK ...	...	...	...	General direction south and south-west. Leaves main post road to Tashkend. Cross Syr Daria river.
1	LAKE ALAMBAL ...	17½	...	...	Water in the lake brackish. On the northern side of the lake are six wells with water fit for drinking and cooking food. Little forage and fuel.
2	UTNBÁS ...	13	...	...	Water and fuel; little forage.
3	IEBAI ...	20	...	...	Water; little fuel; no forage.
4	JABAGATAM (TOMB) ...	19	...	...	Little water and forage; fuel.
5	SARI BULÁK ...	16½	...	...	Plenty of water and fuel; little forage.
6	MANÁS ...	25	...	...	Water for cooking food; for watering cattle there is the sarai well 1 mile 2¼ furlongs from the Manás well, and ¼ mile to the right of the road near the wells of Chaga; Ghat and Shanak up the Kuvan Daria. There is forage and fuel.
7	JAR KUDUK ...	27	..	...	Little water; no forage; fuel.
8	AK-KUDUK ...	28½	...	...	Two wells and a third 1 mile in a westerly direction the water flows very slowly; there is no forage plenty of fuel.
9	KABARAS BUGUT, (6 or 8 miles from Irkibai on the road to Kegereli.)	29	105½	129½	Water, forage, and fuel. At Irkibai road joins Route No. 9.
10	LAKE KEGREELI KAK	37	...	...	Water and fuel; little forage.
11	ON ADAM ...	15	...	...	Plenty of water and fuel; no forage.
12	SUIMAN-KUDUK ...	17	...	...	No water and forage; plenty of fuel.
13	KASKA ...	16½	...	...	Plenty of water and fuel; no forage.
14	RAI-SHUVAK WELL ...	22½	...	...	Water and fuel; no forage.
15	BOZ-GUNAK ...	38½	...	...	No water or forage; fuel. During rainy weather a lake is formed in the low ground with good water.
16	LAKE KÁBA-KOL ...	43½	...	...	3 miles 2¼ furlongs before reaching the lake, there is a well; forage and fuel.
17	LAKE KÁMISTI ...	17	...	...	Water, fuel, and forage.
18	LAKE CHANGLI-KUL ...	15	...	...	Do. do.
19	YUIS-BAI WELL ...	47	...	...	Plenty of water, fuel, and forage.
20	KHOJA-KUL ...	35	...	...	Water, fuel, and forage. Near Amu Daria river. Road turns north-west. A road (No. 8) branches south-west to Petro-Alexandrovsk.
21	MATLI-KUL ...	22	...	...	Water, forage, and fuel everywhere.
22	CHARSHALI-KUL ...	23	...	...	Do. do. do. } along Amu Daria.
23	NUKUS (FORTIFIED POST).	25	...	...	Do. do. do. }
			571½	390½	For description of Nukus see stage 5 of Route 7.

Route No. 4.

FROM KAZALINSK TO PETRO-ALEXANDROVSK. (1ST ROUTE *via* BAI-MURAD AND KOKCHA).

Authority—KOSTENKO ROUTE 80, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.		Total.	
		Versts.	Versts.	Miles.	
	KAZALINSK.				General direction south. Road fit for wheel transport.
1	LAKE JAMAN KUL ...	14½	...	...	At 2 miles from Kazalinsk the Syr is crossed at Kara-Tube, and beyond the road lies over sand as far as Lake Jaman-Kul (9 miles from Kazalinsk). From here it runs over undulating country without any vegetation. The water in the wells, though not altogether good, is yet fit for use. Forage in the neighbourhood is always eaten down owing to the large number of pomad Kirghiz about. There is no fuel.
2	KUVAN DARIA WELL...	39	...	...
3	DAIRA-BAI WELL ...	41	...	...	For the first third of the march the road runs through insignificant sand-hills very scantily covered with shrubs. Beyond this it passes over undulating country with hard soil almost destitute of vegetation. Water in abundance. The wells of Daira-Bai as well as those of Don Kazgan (next stage) are situated in a ravine. These wells are sometimes called Mullali.
4	DON-KAZGAN ...	52½	...	...	Soil at first sandy; then quite hard and covered with occasional bushes. Through small sand-hills for last 9 or 10 miles. At the camping ground are several wells; water good and abundant.
5	MIRZALI WELL ...	61	...	...	Hard ground, except for an interval of ½ mile, where crumbling sand has to be crossed. Latterly sandy country with occasional saxaul. Throughout the whole march there is fuel in the form of thin brushwood. The water in the well is very salt. Fuel close by in abundance; no forage.
6	KOS-KUDUK WELL ...	16½	...	...	Hard soil till a high hill is reached, when road passes through a narrow stratum of sand; thence again on to hard, hillocky country for 2 miles 5¼ furlongs, and from here to stage (another 2¼ miles) sands again. The wells are situated amongst crumbling sand; there are three of them, and the water is good. There is fuel, and forage for camels may be found not far off; no forage for horses.
			224½	146½	At about a mile from Kos-Kuduk the road is crossed by the dry bed of the river Yani-Daria. Country at first level clay soil covered with tamarisk, then sand hills. Beyond this, at 4 miles from stage, road passes over 1½ miles of flat country overgrown with saxaul and tamarisk, and after this hard sand hills to stage. There is crumbling sand at the wells, which are two in number. Water slightly saltish. There is ample fuel and ample forage for camels. For horses there is no forage. Near here the road from Kazalinsk to Nukus crosses (No. 3).
7	BAI-MURAD (IMBAT) ...	26½	...	...	For a short distance road runs over hard soil covered with thick and pretty large brushwood; then it begins to get sandy, till for the last 2 miles 5¼ furlongs it runs among crumbling sand-hills. Plenty of water in the wells, but it is saltish. Little fuel; no forage near. Waterless tract of 140 versts (92 miles 6¼ furlongs) in front to Taji-Kazgan well.
8	BION-KAK (WELL) ...	26	...	...
9	UDAGAJ (WELL) ...	38½	...	...
10	JANGILDI-KAK (WELL)	33½	...	...
	Carried over ...	...	348½	232½	

Route No. 4—*contd.*FROM KAZALINSK TO PETRO-ALEXANDROVSK. (1ST ROUTE)—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versts.	Versts.		Miles.
	Brought forward ...	...	348½	232½	
11	KARA-BATIR WELL ...	46½	...	...	Road at first among sand-hills, which are very difficult to pass. The sand is, in places, covered with saxaul, tamarisk, Jusau, and occasionally feather grass. Towards the end, the soil is hard. The wells of Kara-Batir (83 miles from Bai-Murad) have been abandoned in consequence of the bad quality of the water, which even camels refuse to drink. The stages between Bai-Murad and Tadjikazgan are from the Route map (1883). Wells have therefore apparently been dug since Kostenko wrote.
12	TAJIKAZGAN WELL ...	12	...	...	Hard clay soil for first half of march, then deep sands. There is one well, and water can only be got for a small detachment. The water is good. There is hardly any fuel near the well. Sand-storms are here so violent that they sometimes fill up the well in the space of twenty-four hours.
13	KOKCHA WELL ...	21½	...	...	The route lies through sand-hills very poor in vegetation. There is no want of water at the wells. It is easy to dig them out as much as is necessary, but the water is saltish. Near the camping ground there is sufficient fuel, but there is little forage almost throughout the whole march.
14	BAZAR-KALA ...	26½	...	...
15	KALTA-MINAR (Government garden.)	25½	...	...	The first 4½ miles of the road is through deep sand and high sand-hills; then for a distance of 13 miles 2 furlongs up to the ruins of Bazar-Kala (17 miles from Kalta-Minar) it runs over undulating ground slightly sandy, and scantily covered with thin bushes.
16	PETRO-ALEXANDROVSK (FORTIFIED POST).	14½	...	...	Road runs through cultivation, crossing irrigation canals. Sand is met with in places. At Shurakhana it passes through the town of that name, and crosses a large canal; the last mile is over sand-hills. Petro-Alexandrovsk is on the right bank of the Amu Daria, from which it is separated by a wheel road of 4 or 5 miles. It is the chief military station in the Amu Daria section and the terminus of the Amu Daria Flotilla. The fort is on ground of some natural strength and pleasantly situated, but the place is not healthy, and part of the garrison has been accordingly transferred to Nukus. Inhabitants (with troops) at present 3,250. There is a ferry to left bank of river to Khauki.
			495½*	330½	

* The total according to Russian route map is 495½ versts = 330½ miles.

Route No. 5. .

FROM KAZALINSK TO PETRO-ALEXANDROVSK (2ND ROUTE).

Authority—KOSTENKO, ROUTE 102, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Vershs.	Vershs.	Miles.	
1	KAZALINSK ...	...		
20	KHOJA-KUL ...	501½	...	...	Route 3, stages 1 to 20.
21	KHAYAK-TAU ...	27	...	...	Water, forage, and fuel.
22	BEE-BAZARB ...	25	...	...	Water, forage, and fuel everywhere.
23	SHEIKH-ABAS-WALI ...	21	...	...	Do. do. do.
24	PETRO-ALEXANDROVSK (FORTIFIED POST).	30½	...	...	Stage 16, Route 4.
			605	403½	

Route No. 6.

FROM KAZALINSK TO BOKHARA.

Authority—KOSTENKO, ROUTE 118, AND ROUTES IN ASIA, SECTION III.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KAZALINSK (passage of the Syr Daria).	...	...	...	...	General direction south. Stages 1 to 9 of Route 3, total 195½ versts or 129½ miles.
9	KARABAS-BUGUT WELL	129	4	...	...
10	IRKIDAI FORT AND WELL	6	...	157*	4	Cross Yani Daria, an old bed of the Syr. From Irkibai the sand-hills are thickly overgrown with saxaul. Roads branch:— North-east to Perovsk. South-west to Nukus and Petro- Alexandrovska. Waterless tract.
11	KIZIL-KAK	60	5	...	...
12	BAKBLI SPRING (Bukan mountains)	45	0	...	...
13	CHILI WELL	11	2	...	...
14	UZ-KUDUK WELL	14	4	...	...	Or Jus-Kuduk. A track from here leads west to Min, about 43 miles. No information about it.
15	KOK-POTAS WELL	21	7	...	...	Road south-east joins Route 15.
16	BATPAK-KUM SANDS	23	1	...	...
17	TUMEN-BAI WELL	27	7	...	...	A masonry well with excellent water. The well is in a small valley in north latitude 40° 34' 51".
18	CHUAK-BAI (hills)	23	2	...	...	At 4 miles cross Chuak-Bai hills, here called Tumen- Bai Tagh. Camp on the spur of the Chuak-Bai hills, near well of same name.
19	JUSALI-SAI WELL	17	2	...	...
20	KARAK-ATA WELL	8	0	...	399	A mineral spring in a mulberry grove surrounded by buildings. Water tastes slightly of sulphur. Route 14 crosses east and west.
21	KIZIL-KAK	12	...	...	...	An indifferent well, 21 feet deep, 2 miles off, on the road. Lehmann's party went 3 miles to some water which was good.
22	AGATMA	16	...	...	...	A few Bokharan soldiers occupy a small tower at this place. The Khan produced provisions of all sorts for Lehmann's large party. The water at the springs is hardly drinkable. There are a few bushes, but no grass.
23	NAZAR-BAI	18	4	...	...	Road over sand-hills; then flat, barren clay steppe. A well called 'Caravansarai' a few miles before reaching Nazar-Bai. At Nazar-Bai is an arched building to shelter travellers. 6 miles beyond this there are two salt lakes in the clay hills.
24	VARDANZA FORT (WARDANZAI).	16	...	...	...	Town with large bazaar. Rectangular fort to north- east, face 400 paces. Immediate neighbourhood culti- vated, but surrounded by shifting sand-hills.
25	LYAGLYAK (LAKLAKA) VILLAGE, passage of the Zarafshan.	20	4	...	...	A village of mud huts surrounded by orchards in the barren plain on the right bank of the Zarafshan. The river here is crossed by a wooden bridge 100 paces long, and is fordable in April when exhausted by irrigation, but not at all seasons.
26	BOKHARA, TOWN OF	11	2	...	...	For general description of the town see Gazetteers. The native town is 8 miles from the Railway station and Russian town. The two are connected by an ex- cellent road.
				495	9	

* This distance is from the Russian Route Map, 1893. Kostenko's distance is 151 miles 1 furlong.
Note.—The Russian Route Maps of 1891 and 1893 only show: Yus Kuduk, Karak-Ata, and Lyaglyak.

Route No. 7.*

FROM MEHTAR-KALA (KOK-KALA) TO NUKUS.

Authority—KOSTENKO, ROUTE 79.

Number of Stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	MEHTAR-KALA (KOK-KALA).	...	...	...	...	General direction south. The whole road is generally good. There is little sandy tract. Water, forage, and fuel at the camping grounds.
1	NAUPIRABIK ...	18	...	...	...	On the river Yain-Su, a branch of the Amu Daria in the delta.
2	CHIMBAI ...	15	...	...	...	The town is situated in fields and orchards irrigated by the Kigali canal, which passes through the middle of the town. It has a considerable bazar, and an open-air market is held twice a week outside the town. Chimbai is called by Kuhu the chief commercial centre of the Karakalpaks.
3	LAKE KABA-UI ...	17	...	...	...
4	RUINS OF MAHMUD-I-KALA.	16	...	...	...
5	NUKUS (fortified post)	7	...	...	...	On right bank of Amu Daria, just above the point where it is left by the Kuvan-Daria branch, and where the main stream is crossed by a ferry to Khwaja-III. Saxaul for fuel is found in abundance in the neighbourhood, and the proximity of the important town of Chimbai facilitates the provisioning of the garrison. At Nukus is a Russian fort and garrison, and considerable trade is carried on with the nomads.
				72	...	

* On Russian Route Map of 1893 Mehtar-Kala and Stages Nos. 1, 3, and 4 not shewn, and from Chimbai the stages are as under:—

Ak Tube	...	...	...	...	13 versts.
Pereprava	...	...	...	...	23 "
Nukus	...	...	...	...	12 "

48 versts or 32 miles.

Route No. 8.

FROM NUKUS TO PETRO-ALEXANDROVSK.

Authority—KOSTENKO, ROUTE 103, AND RUSSIAN ROUTE MAP OF 1893.

Number of Stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	NUKUS ... ..	...			Wheel road following right bank of Amu Daria. Water, forage, and fuel everywhere. Stage 5, Route 7.
1	LAKE CHABSHALI-KUL	25			
2	LAKE MAILI-KUL ...	23'			
3	KHOJA-KUL ...	22'			Road north-east to Kazalinsk and Perovsk, No. 3.
4	KHAYAK-TAU ...	27'			
5	BEB-BAZAAR ...	26'			
6	SHEIKH-ABAS-WALI	21'			Village.
7	PETRO-ALEXANDROVSK	30½'			
		...	173½	116	According to Russian Route Map of 1893 the total distance is 116½ miles.

Route No. 9.

FROM PEROVSK TO PETRO-ALEXANDROVSK.

Authorities—KOSTENKO, ROUTE No. 104; MACGAHAN; ROUTES IN ASIA,
SECTION III, ROUTE 121, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versts.	Versts.	Miles.	
					Caravan route. General direction W. S. W. across the Kizil Kum desert. Up to Irkibai follows approximately the dry course of the Yani Daria. Mr. MacGahan rode by this route to Irkibai when following up the Khivan expedition in 1873, and Major Wood followed it in 1874.
	PEROVSK ...	...	...	...	Stage 17, Route No. 1. Cross Syr Daria. 1 mile wide and follow bed of Yani Daria, which contains water for about 40 miles.
1	BISHMILLAH ...				
	TUMAR-UTKUL (JAM- BAT-KUL).	25½	...	...	From here, according to the Russian route map of 1893, a desert track branches off and runs due south across the desert to the Ayak well (stage 16, Route 16). No information about it.
	LAKE BOEB ...				
2	KUT-KANCHERK (KUT- KAPCHAK).	38			
	ABDIR-KALIN ...				
3	KOS BUGUT ...	32			
	BADPAK-SAXAUL ...	...	...	...	Small oasis; plenty of grass and water.
	KALDI-KARA ...				
4	SARI-CHEGAPAN (AK- CHEGANAK).	34	...	...	Saxaul and absinthe.—(Horses eat latter with relish according to MacGahan).
5	LAKE KOK-CHUNGUL	34½			
6	AK-KIR (SHULAK).	36	...	...	Track south to Yani-Kuzgan. Wells near Ayak.
7	KABA-UTKUL ...	32			
	Carried over ...	...	231	154	

ROUTE No. 9—*contd.*FROM PEROVSK TO PETRO-ALEXANDROVSK—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS
		Interme- diate.	Total.		
		Versts.	Versts.	Miles.	
	Brought forward ...	...	151½		
	RUINS OF FORT CHUKK BOBAT				
8	IRKIBAI ...	40	...	...	Stage 11. Route 8. Roads from here to Kasa- linsk (north), Petro-Alexandrovsk and Nukus (south-west), and Bokhara (south).
9	LAKH KRGENELI-KAK	25			
10	ON-ADAM ...	15			
11	SUIMAN KUDUK ...	17			
12	BAIMURAD ...	25½	...	...	For stages 12 to 21, see Route No. 4, stages 7 to 16.
21	PETRO-ALEXANDROVSK	245½			
			598½	398½	

NOTE.—The stages and distances given above are taken from the Russian Route map.

Route No. 10.

FROM PETRO-ALEXANDROVSK TO KHIVA.

Authority—KOSTENKO, ROUTE 105, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versls.	Vers's.	Miles.	
	PETRO-ALEXANDROVSK (fortified post.)	The chief difficulty on this route consists in the passage of the river Amu. Between Shurakhana and Khanki the Amu flows in several branches, the main one of which is about 700 yards in width. Besides this branch two others have to be crossed in boats and eight small branches and canals by fording. The distance between the extreme points of passage is about 5 miles 2½ furlongs. The whole of this extent is inundated with water when the river is in flood, and the passage then becomes still more complicated. The chief difficulty of all is with the baggage and harness animals, camels, and horses. Great exertions are required to take them (especially camels) into the boats, and then to get them out again. The taking off and putting on loads also takes up much time. As the distance between some of the branches at the Shurakhán crossing comes to 2 miles, it is necessary to have <i>arabas</i> to transport the loads between these branches. The road from Khanki to Khiva runs through continuously cultivated country.
1	KHANKI (village) ...	21			
2	KHIVA (town of) ...	39½			
			60½	40½	35 miles according to Kostenko.

Route 11.

FROM PETRO-ALEXANDROVSK TO MIN-BULÁK SPRINGS (*via* BUGETLI).
 Authority—KOSTENKO, ROUTE 109, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Stages.		DISTANCES.			REMARKS.	
			Inter-mediate.		Total.		
			Versta.	Versta.	Miles.		
	PETRO-ALEXANDROVSK	...	...	...	...	From the Petro-Alexandrovsk fort for a distance of 6 miles 5 furlongs the road is fit for infantry and cavalry, but the canals which intersect the road render it somewhat difficult for artillery and carts. At 7 miles 2½ furlongs the road cuts through sand-hills. Beyond this, up to 13 miles 2 furlongs, <i>i.e.</i> , to the heights of Kára-Gir-Tau, the road rises slightly, in parts sandy, in parts firm. From Kára-Gir-Tau to the salt marsh (2 miles 2½ furlongs) there are sand hillocks rising to 28 feet in height.
1	SOK-KUL WELL	...	...	25	...	At the camping ground there is one well about 56 feet deep; the water is salt and of a sulphurous taste. There is sufficient water for 500 men and 50 horses. Forage can be found to the north-west of the well, about 700 yards from it. Fuel about ¼ mile from the well. From Sok-Kuli the road, after rising up a slope of 30° and crossing a salt marsh, ascends a mountain for 4 miles 5 furlongs; it runs in sand (to a depth of 2½ inches) with frequent passes. From 4 miles 5 furlongs to the Kára-Tau mountains, passes are met with up to 70 feet in height; here the sands are still deeper. After descending from the Kára-Tau (the descent for 700 yards is at an angle of 20°), the road passes through a small pass, descends to salt soil, and beyond, as far as the Sari-Bulák well, runs over level saltish soil.
2	SARI-BULÁK	...	...	23	...	At 2 miles from Sari-Bulák there is a spring at Muzárkam in which the water is fresh and good. It is sufficient for 1,000 men and 200 horses. In the event of scarcity of water the horses can drink at the two wells of Sari-Bulák, where the water, although salt, is not injurious. There is plenty of forage and fuel about ¼ mile from the spring. From the Sari-Bulák well, after crossing line sand for 1 mile, the road rises at an incline, which, although insignificant, is covered with deep sand-hills for 1 mile 2½ furlongs. After this the sand becomes less, and firm ground is crossed. Soon, however, difficult sand-hills again commence, continuing to 9 miles 7½ furlongs, after which the road descends through small sands to the Bugetli wells.
3	BUGETLI WELL	...	...	17	...	At Bugetli there are four wells with brackish water, quite unfit for men to drink. Horses also drink it unwillingly. There is forage and fuel. From Bugetli to the salt marsh the road runs through sands, but not difficult ones. From the salt marsh it is up a slight incline on hard ground for about 1 mile 2½ furlongs. Beyond for 2 miles it rises on a hill, through sand, 2½ inches deep, with frequent small passes. When within 1 mile of the well at the camping ground, the road runs over hard, undulating ground.
	Carried over	...			65	43½	

ROUTE No. 11—*contd.*FROM PETRO-ALEXANDROVSK TO MIN-BULAK SPRINGS (*via* BUGETLI)—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
			Versts.	Versts.		Miles.
	Brought forward ...		65	43½	
4	KHATANTAI-KAZGAN ...	34	...	...	<p>There are two wells at Atantai, of which one is blocked up by sand, and there is very little water in the other. Forage for 100 horses may be found ½ <i>verst</i> (½ mile) to the north-west of the well. There is plenty of fuel.</p> <p>From the Atantai well the road for a distance of 12 <i>versts</i> runs over undulating, sandy ground. After this the soil becomes firmer, and shallower sand is met with. On this part of the route movement is not difficult even for artillery.</p>
5	BUZAUBAI WELL ...	33	...	...	<p>Near the Bazgu-Bai wells are the three wells of Musret with saltish water, but fit for use. The water is sufficient for 600 men and 200 horses. There is no forage or fuel near. At Bazgu-Bai there are eight wells, of which five are blocked up. In the remainder there is sufficient water, and it is fit for use. At a <i>verst</i> (½ mile) from the wells both forage and fuel are to be found.</p> <p>From Bazgu-Bai for 5 <i>versts</i> (3 miles 2½ furlongs) the road is not difficult, even for artillery, but beyond, up to 10 <i>versts</i> (6 miles 5 furlongs), it runs through crumbling, but not deep, sands. After this up to the Kárn-Kalpák wells the ground is level and tolerably firm.</p> <p>The Kárn-Kalpák-Kazgán well lies somewhat to one side of the road.</p>
6	KARAKALPAK-KAZGAN WELL ...	16	...	...	<p>At the camping ground are two wells, one of which is blocked up; the depth is about 81 feet; the water is saltish and tainted. There is sufficient water for 500 men and 100 horses.</p> <p>Forage and fuel at about 1 <i>verst</i> (½ mile) from the wells in plenty.</p>
7	BISEKTI SPRINGS ...	22	...	...	<p>From the Kara-Kalpak-Kazgan wells the road runs over undulating, sandy ground, which does not particularly impede movement.</p> <p>There are two springs at Besekli; in one the water is good, in the other saltish. There is sufficient water for 1,000 men and 200 horses. Fuel and forage can be found to the south-east of the springs.</p> <p>From Besekli to Min-Bulak the road, although traversing mountains, may be said to be suitable even for artillery, as the ascent is by terraces of no great steepness or height, and the descents are gentle. Sand is met with in places.</p>
8	MIN-BULAK SPRINGS (a thousand springs).	20	...	...	<p>At the Min-Bulak springs trees grow. The water is good, and there is fuel, but scarcely any forage. There is enough water for 600 men and 150 horses.</p>
			180	126½	

Route No. 12.

FROM PETRO-ALEXANDROVSK TO CHARJUI (BY RIGHT BANK OF AMU DARIA.)

Authority—KOSTENKO, ROUTE 110, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.		Total.	
		Versta.	Versta.	Miles.	
	PETRO-ALEXANDROVSK				Road follows the Amu Daria the whole way. There is an alternative route on the other bank, which is the one more usually followed.
1	AK-KAMISH	23			
2	BAZIRIAN-TUGAI	10			
3	MESHKLI	21'			
4	ICHEK-YAB	15			
5	UCH-UCHAK	20'	...	...	Road east from here across the desert joins Kazalinsk-Bokhara road (No. 6) at about stage 22.
6	MANYI TUGAI*	11½			
7	DIX-SUAT	18			
8	KIZIL-RABAT (ruins)	19			
9	KUKBETLI (ruins)	21	...	...	Road south-east to Bokhara.
10	SHORTANKLI* (opposite the ruins of Daya-Khatin-Kala in the Fenkin pass).	32			
11	KEEK TUGAI*	17			
12	KEEK TUGAI*	10			
13	SARI-DAGH-TUGAI	16			
14	JIDBILI	16			
15	NARKIZ-KALA (ruins)	20			
16	ILCHIK	22½	...	...	Station of Amu Daria flotilla.
17	USTIK (FORT OSTI)	25	...	...	Ferry to left bank of Amu. Station of Amu Daria flotilla.
18	KIRBAJ	14	...	...	Road north-east from Kara-Kul and Bokhara joins (No. 10).
19	KHANDAK	6	...	...
10	FARAB	17	...	...	Railway station. Cross river to Charjui on left bank. Distance about 5 miles by rail.
20	CHARJUI	7	...	...	The route on left bank of the river is much more used than the above. Little more is known about this one than the fact that it exists, and that the river can be followed by this bank.
			360	240	

NOTE.—The stages and distances given above are taken from the Russian Route map. Kostenko gives 17 stages. The stages marked* are the additional ones.

Route No. 13.

FROM PETRO-ALEXANDROVSK TO BOKHARA.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
			Vershs.	Vershs.		Miles.
19	PETRO-ALEXANDROVSK FARAB (<i>stage 19, Route 12</i>).	353	...	...	Route 12, stages 1 to 19.
23	BOKHARA	97½	450	296½	Route 23, stages 1 to 4 or by railway.
			450½	300½	

* This would be the best route to follow but instead of going on to Farab it is possible to strike direct across the desert from Kukertli (See Route 17 stages 7 to 13) or from Kheraj (stages 19 to 24 of Route 16).

Route No. 14.

FROM THE WELL OF AYAK *via* ARISTAN-BEL-KUDUK AND THE PASSAGE OF THE
AMU AT SHEIKH-ARIK TO KHIVA.

Authority—KOSTENKO, ROUTE 108, AND RUSSIAN ROUTE MAP, 1893.

[The Turkistan detachment marched by this route to Khiva in 1873.]

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	AYAK-KUDUK WELL.				Stage 21, Route 15.
1	ARISTAN-BEL-KUDUK WELL.	33½			Good wheel-road. At the camping ground are ten wells; fresh water; fuel—wormwood and dung.
2	MANAM-JAM WELL ...	22			From Aristan-Bel-Kuduk the road for about 1½ miles runs in a defile. It was fairly well made by the detachment of Sappers in 1873 during the Khivan expedition. Beyond, the road is very level, hard, and smooth. At the camping ground are six wells; water fit for use; fuel—wormwood and dung.
3	KARAK-ATA WELL ...	21½	77	51	Road good; plenty of water of good quality. Road from Kazalinsk to Bokhara crosses here.
*4	CHUK-KUDUK WELL...	26½			Five wells; water brackish, but fit for use.
5	SULTAN-BIBI WELL ...	✓ 37			At the camping ground there are ten wells, 16 to 19 feet deep, with fresh water.
6	UCH-KUDUK WELL ...	✓ 13½			Twenty wells, 21 feet deep; water fresh.
7	JINGILDI WELL ...	✓ 20			One spring and forty wells with tainted water.
8	KHAL-ATA WELL ...	✓ 16			Twenty-seven wells with saltish water.
9	AK-TASH WELL ...	✓ 22			
10	ADAM-KIRILGAN WELL	✓ 13½			At 8 miles from Khal-Ata sand-hillocks commence; the road is very difficult. At the camping ground are about fifty wells; water fit for use; a little fuel, dung; scarcely any forage.
11	ALTI-KUDUK ...	26			The road is very difficult and runs through sand-hillocks, scantily grown over with brushwood, saxaul, and poor grass. At about 13 miles 2 furlongs from the Adam-Kirilgan well, and 6 miles to the north of the road, are the Alti-Kuduk wells (actually five and not six wells), with good water. The expeditionary detachment stopped at these wells. Alti-Kuduk is a "stage" according to the Russian Route Map, 1893.
12	UCH-UCHAK† ...	40			
13	ICHKE-YAR ...	20			Kostenko gives the following route from Adam-Kizilgan— Lake Sardaba-Kul ... 54 versts. Ichke-Yar ... 20 Lake Sardaba-Kul is not marked in the Russian route-map.
	Carried over ...		319½	213	

* From Chuk-Kuduk runs a direct road to Jingildi, distance 69 versts.

† See Stage 5, Route No. 12.

ROUTE No. 14—*contd.*

FROM THE WELL OF AYAK *via* ARISTAN BEL-KUDUK AND THE PASSAGE
OF THE AMÚ AT SHEIKH-ARIK* TO KHIVA—*contd.*

Number of stages.	Name of stages.	DISTANCES.			REMARKS.
		Intermediate.		Total.	
		Versts.	Versts.	Miles.	
	Brought forward ...	...	319½	211½	
13	ICHKE-YÁB (<i>goat ravine</i>).	...			From Adam-Kirilgan 57 miles according to route—map.
14	RUINS OF MĚSHĚKLI (fortified post).	15			} From Sardaba-Kul according to Kostenko the road leads along the right bank of the Amu; it is partly sandy, partly firm; sometimes it runs by hillocks. At the camping grounds bushes serve for fuel and reeds for forage. The Oxus at this ferry is about 1,280 yards wide. The passage in summer, at least when the river is high, is an easier one than that described under Shura-Khana (see Route 10), the stream being confined to a single channel. General Kaufmann took five days' crossing it in 1873. The road hence to Khiva is fit for carts, and runs through continuous cultivation by Hazar-Asp, Bagat, and Yangi-Arik.
15	BAZIBIÁN-TUGAI ...	21			
16	AK-KAMISH ...	19			
17	TYUNYUKLYU FERRY* AT SHEIKH ARIK.	11½			
18	HAZAR-ÁSP ...	17½			Khivan town; Station of Amu Daria flotilla.
19	BAGAT ...	23			Village.
20	YANGI-ÁRIK ...	20			
21	KHIVA ...	19			For general description, see Gazetteer.
			466½	310½	

* On the Russian Route Map of 1893 this ferry is called Tyunyuklyu.

Route No. 15.

FROM KHIVA TO JIZAK.

Authority—KOSTENKO, 1880, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Verss.	Verss.	Miles.	
	KHIVA.				General direction east.
2	PETRO-ALEXANDROVSK	60½	...	...	For stages 1 to 2, see Route No. 10.
10	MIN-BULAK SPRINGS (thousand springs).	190	...	...	For stages 2 to 10, see Route 11.
11	BASKARA WELL ...	19½	...	...	At the commencement of the march movement is rendered difficult by lofty sand-hills. The Min-Bulak springs are situated amongst these sand-hills, which are thickly grown over with brushwood "jangil," which furnishes good fuel. There is very little forage. The wells of Baskara are situated in a depression, the descent into which is very steep. The water in the wells is good.
12	YANI KAZGAN* ...	30			
13	TUZ-KUDUK WELL ..	12	...	...	There are no traces of a road, but the country is even and practicable. At 7 miles is the ravine of Ak-Sai with excessively steep banks. In the wells at the camping ground there is water in sufficient quantity, and, moreover, of good quality. There is forage and fuel in the neighbourhood.
14	KOK PITAS* ...	23	...	...	The road is even, and sometimes intersected by the beds of streams, which in the spring flow down from the Altin-Tau mountains, extending parallel to the road. The water in the Tuz-Kuduk well is so salt, that neither men nor horses can drink it. There is no fuel nearer than 1 mile from Tuz-Kuduk. Near here roads from Kazalinsk (north) and to Bokhara (south) cross.
15	YANI KAZGAN* ...	38			
16	DISH-BULAK WELL ...	9	...	...	The road is over even ground. At 13 miles are the wells of Anti-Achi with brackish water. At the camping ground there are five wells; none of them are deep, and the water in them is not good. There is little fuel about, but sufficient "jusau."
17	ADIM-SAI* ...	23			
18	TAMDI (this point is determined astronomically.)	13	...	...	For the first 13 miles the road is very sandy, rendering movement very difficult; beyond that it is over even ground. At the camping ground are many springs with good water. Fuel and forage are to be had in the neighbourhood.
19	KIDERI WELL ...	37	...	...	For the first 7 miles the road lies in a defile through the Tamdi-Tau mountains, and the last 17 miles the road is level. At the Kideri well the water is of good quality and in sufficient quantity. In the neighbourhood there is forage and fuel in abundance.
20	RŪ WELL ...	14	468	...	The road is extremely sandy. There is no water on the march. At Biru there is ample water.
	Carried over ...		468	312	

ROUTE No. 15—*contd.*FROM KHIVA TO JIZAK—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Vershs.	Vershs.	Miles.	
	Brought over ...	...	468	312	
21	AYAR-KUDUK WELL ...	27	...	...	Up to the wells of Yani-Kazgan (9 miles) the road runs over level country; beyond it becomes sandy. There is little water in the Yani-Kazgan wells. At the camping ground are two wells with good water, sufficient for a large detachment. There is sufficient forage and fuel in the neighbourhood.
22	MASCHI WELL ...	15	...	...	The road passes through an undulating, hard locality, cut up by low eminences bearing the name of Jaman-Tau. There is no water on the march. At the camping ground are six wells; the water of three of them can be drunk by men; of the other three by cattle only. "Jusan" and <i>assafetida</i> grow round the wells in abundance.
23	BAIMAN-TAPTI WELL ..	20½	...	...	The road at first is firm and smooth, but afterwards runs through a sandy tract. There is no water along the road. The well at the camping ground will satisfy a detachment of 400 men. There is forage for cattle at 2 miles from the well.
24	KOSH-BAIGI WELL ...	28½	...	...	For the first 2 miles sand-hills are met with, which render movement difficult. Afterwards the road runs over a completely level and practicable country. The Kosh-Baigi well will water a detachment of 400 men, with the usual amount of horses and camels. Close by are three wells (<i>sullu</i>) with water fit for cattle. "Jusan" grows in the neighbourhood.
25	BALTA-CHAUDIR WELL	20½	...	...	At 12 miles are the Chakmak wells with good water. For the first 18 miles the road is easy and fairly good, but beyond it is over sand, which renders the movement of baggage difficult. At the camping ground are two very deep wells. The water is fit for use, and sufficient for 200 men and 100 horses for twenty-four hours. There is "jusan" brushwood, "kuyan-poyuk." Foxes abound.
26	TEKIR-KABUK ...	29	...	...	There is no road in its strict sense, but the direction of the Kurgan-Tube hill visible in the distance is kept. The first 9 miles of the road is sandy. The sands are not deep, and are suitable for passage. At the camping ground there is water in sufficient quantity. There is "jusan" brushwood (forage for horses) and fuel.
27	SAP (VILLAGE) ...	24	...	...	The road passes through stony and sometimes very steep hills. Mountain streams and canals cross it in places. Wheel traffic is almost impossible. At 6½ miles there are hamlets on both sides of the road. At 12 miles is a large ravine and the river of Katti Sai; at 15 miles the hamlet of San is seen. There is sufficient water at the camping ground. Forage (corn, &c.) can be obtained from the inhabitants of the village of Sintab.
			641½	427½	

* An alternative route to here would be by No. 14.

ROUTE No. 15—*contd.*FROM KHIVA TO JIZAK—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	Brought over ...	...	641½	427½	
28	FARISH (VILLAGE) ...	24	...	...	The road runs over the spurs of the Nurata mountains, moderately level but rugged, and unfit for wheel traffic. At 3 miles on the right the hamlet of Merzerum is visible in the hills. At the camping ground there is sufficient water; for fuel and food for camels "jusan" bushes must be used.
29	USHMA (VILLAGE) ...	17	...	...	Road is of the same character as on former march. Hamlets are seen on both sides of the road. At half way is an excellent spring. There is ample water at the camping ground at Uchma.
30	OSMAN-SAI* ...	23½	...	...
	NUREK (village on the Gierchik canal).	...	...	...	The road is over mountain spurs, and is rugged. At 5 miles on the river Iliyánehi. In the mountains near the road is the hamlet of Dorastan, and a little further on (at about 8 miles) the hamlet of Yani. The road here crosses the river Iliyánehi; at 10 miles the river Sádik-Ab-Sakal is crossed, and at 14 miles a nameless stream; at 18 miles cross the river Kurvan-Niaz. At the camping ground there is sufficient water for a considerable detachment. Nurek has a good bazar and trades extensively in salt. This village is not shewn as a stage in the Route Map of 1893.
31	CHIRCHIK* ...	17½	...	...
32	CHANGARLI* ...	28½	...	...	The road is hard, level, and stony. There is a complete absence of forage even for camels along the road. There is sufficient water at the camping ground on the Kill.
33	JIZAK ...	16½	...	...	The road to Jizak is level, smooth, and firm; occasionally intersected by canals. The country is open.
			786½	511	Jizak town of about 4,000 inhabitants on post road from Samarkand to Tashkend. See stage 8, Route 18. Post road from Samarkand to Ferghana via Khojend. Route 20 also branches off here to the east.

NOTE.—The stages and distances in this route are taken from the Russian Route Map. Those marked* are in addition to Kostenko's.

Route No. 16.
FROM KHIVA TO BOKHARA (1ST ROUTE.)

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Stage.		Total.	
		Vershs.	Vershs.	Miles.	
	KHIVA.				
2	PETRO-ALEXANDROVSK	60½	...	...	Stages 1 to 2, Route 10.
10	KHERRAF ...	329½	300	357½	Stages 1 to 17, Route 12.
20	AYU-BAI WELB ...	15	...	...
21	GUJBILI ...	14			
23	KARA-KUL ...	14	...	...	Station on the Trans-Caspian Railway.
24	BOKHARA ...	56½	...	...	Stages 1 and 2 of Route 23.
		...	489½	320½	

Route No. 17.

FROM KHIVA TO BOKHARA (2ND ROUTE.)

Authority—RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versg.	Versg.	Miles.	
	KHIVA.				
3	HAZAR ASP ...	62	43	6	Stages 21 to 18 of Route 14.
4	PITNIAK ...	23	...	...	} Road through Khivan Oasis. Pitniak is a station of the Amu Daria flotilla.
5	YANGI-JA ...	43	...	...
6	KOB-BULAK ...	28	...	...
7	DARGAN-ATA AND KUKERTLI	54	...	...	Left bank of Oxus reached at about two-thirds of the distance. Cross to right bank, Kukertli.
8	ISH-MADAN WELL ...	32	...	...	From here the road runs direct across the desert.
9	SOB-BULAK WELL ...	47½	...	...
10	AK-BABAT WELL ...	28½	...	...
11	VANAKHCHIN WELL ...	23	...	...
12	JANDOR ...	19½	...	...
13	BOKHARA ...	25	...	...	At Jandor (Khunin?) the main road from Yakatul to Hish Duvan crosses.
			383½	255½	

NOTE.—In vol. I, page 220, Schuyler says: "From Khiva to Bokhara the usual route is to ascend the Amu Daria in boats as far as Ustik, and then loading on camels to proceed to Bokhara through Karakul, some 350 miles, or a journey of about 17 days. The current of the Amu is so strong that the return journey is much shorter."

In Vol. II, page 119, he says: "I could have proceeded (from Bokhara) to the little fort of Ustik on the Amu Daria, and could then have descended that river in a boat almost to the very walls of Khiva, a journey at the utmost of about four or five days from Bokhara, but the coming back would have been a very different matter."

Vambéry says: "From Khiva to Bokhara we had the option between three routes: (a) by Hazar Asp and Pitniak, crossing the Oxus at Kukertli; (b) by Khanki and Shurakhana on its right bank, with two days of desert from the Oxus to Karakul; and (c) up the river by water, and then disembarking at Ilchak, proceeding through the desert to Karakul."

Route No. 18.

FROM TASHKEND TO SAMARKAND (POSTAL ROAD).

Authority—VENUKOFF, KOSTENKO, SCHUYLER, CAPTAIN A. C. YATE,
CURZON, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.		Total.	
		Versts.	Versts.	Miles.	
	TASHKEND.				Postal road with horses at each post station. The journey is made in a "tarantass" wooden vehicle without springs. Telegraph line along road. General direction south-west. Elevation 1,400 feet. Chief town of Syr Daria province and of the whole Turkistan military district. Seat of Government and residence of the Governor-General and head-quarters of troops. Consists of the Russian and native towns with a population of about 100,000—see Gazetteers for full description.
1	NIJAZBASH (KABA KULDDR)	20	...	...	The road for the first stage is through gardens and cultivation along the elevated right bank of the Chirebik river; afterwards desert steppe till within 7 miles of Chinaz, when gardens are again reached.
2	OLD TASHKEND	21	...	...
3	CHINAZ	22	03	41½	1,000 feet. Cross Syr Daria by a ferry 1½ miles below the town. The stream is between 2th and ¾ of a mile broad (Curzon and Schuyler), and is crossed in a large iron barge attached to a chain and worked by the stream. On to this ferry boat the tarantass is driven bodily (Curzon). The ferry is commanded by the fort of New Chinaz on the right bank of the river at the angle formed by its junction with the Chirebik. The Russian town (New Chinaz) is 3 miles from the old or native town.
4	MALIK	23	...	...	After leaving the ferry across the Syr the road passes through a swampy tract, where traffic is much impeded by mud in wet weather. Beyond this the road as far as Jizak is over the Golodnaya steppe parched and barren waste though at one or two places are cisterns and wells of brackish water.
5	MIRZA RABAT	33½	...	...	There is a "sardaba," or masonry cistern here, containing a well which has been cleared out.
6	AGACHTI	31	...	...
7	UCH TUMB	22	...	...
8	JIZAK	15	187½	124	1,200 feet. Extensive but straggling native town of about 3,000 inhabitants situated in a valley in the Aktagh hills. Unhealthy and noted for guinea worm. The water is principally obtained from ponds. Forage and firewood dear. Roads from here north-west to Kuzalinsk and to Petro-Alexandrovsk (No. 15) and east to Ferghana by Khojend (postal road) No. 20.
	Carried over ... ..	...	187½	125½	

ROUTE No. 18—*contd.*FROM TASHKEND TO SAMARKAND—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
		Vershs.	Vershs.	Miles.	
	Brought forward	...	187½	125½	
9	YANI KURGAN ...	25	...	...	At 2 miles pass the Russian cantonment of Kluchevoý deserted in 1874 in favour of Ura Tapa. At about 2 miles further the road enters the Jolan Ut Pass by the rocky defile called "the Gates of Tamerlane." The pass is through a succession of low hills.
10	SABAILIK ...	17	...	...	Cultivation commences, and continues up to Samarkand. (Yate says there is only cultivation from 15 miles from Samarkand.)
11	KAMENNI Most (Stone Bridge).	15	...	...	A Russian fort. Apparently the road here crosses a wooden bridge over a little stream between high banks.
12	JAMDAI ...	19½	...	...	Cross the main stream of the Zarafshan by Jords a few miles from Samarkand. After this road traverses a succession of gardens and orchards. Thence pass by ruins of Kala-i-Afrasiab, and, skirting the hill of Chupan Ata, enter the city from north-east.
13	SAMARKAND ...	19½	284½	189½	Samarkand is the chief town of the province of the same name, and is a very large and important town. It is the terminus of the Trans-Caspian Railway, and the point of concentration of all the merchandize of Russian Central Asia. The town lies about 5 miles from the left bank of the Zarafshan on the south western slopes of the Chupan A's hills. Its elevation is 2,150 feet. The Railway station is 3 miles from the town. The Russians have a fort commanding the native city. There are no steep gradients throughout this route, and in spring it is in fairly good order. In summer it becomes heavy through dust, and in autumn through mud. There are waiting rooms at each post station, but these are not comfortable, and very little is procurable at them in the way of provisions.
			284½	189½	

Route No. 19.

FROM TASHKEND TO KHOJEND (POSTAL ROAD).

Authority—KOSTENKO, ROUTE 3, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.		Total.	
		Versts.	Versts.	Miles.	
	TASHKEND ...				General direction south.
1	CHIRCHIK (CHIRCHIK-SKAIA).	10	...	...	Cross Chirchik river. Country irrigated and cultivated. Road crosses numerous streams and ariks. The post station is on the south of the main stream, which is now apparently successfully bridged. This was formerly a difficult point of passage.
2	TOI-TUBE ...	10½	...	...	Kara Su, at the crossing of the stream of same name, about 2 miles from Toi-tube, is given by Kostenko as this stage, but according to latest information it is evidently now Toi-Tube. A cart road runs north-east to Yangi Bazar in the valley of the Chirchik, and one south-west into, and then up the Angren valley.
3	BIKRENT ...	10½	...	...	At a little more than half way cross the Angren, a tributary of the Syr. Country about here fertile and cultivated. For next three stages road passes through hilly country and an elevated steppe. Roads numerous between this and the Syr.
4	URALSKAYA ...	10½	...	...	From Murat-Ali about half way cart roads strike off to the Syr on the west and a short distance up the Angren valley to the east. There is also a parallel cart road from here to the remainder of the post road.
5	JAN-BULAK ...	26½			
6	MURZA-RADAT ...	25½			
7	KHOJEND ...	24½	...	...	Large town on left bank of Syr Daria, across which is a wooden bridge. From its situation at the junction of the main roads from Tashkend and Bokhara and Kashgar the town of Khojend enjoys a great commercial importance, and there are numerous silk and cotton factories. On two sides are extensive gardens. The circumference of the town is about 8 miles; on three sides there is a double wall, and on the river side a single wall. Population about 30,000, nearly all Tajiks.
			138½*	92½	* 139½ versts according to the 1894 Hand book of the Samarkand Province.

Route No. 20.

FROM JIZAK TO KHOJEND.

Authority—KOSTENKO, ROUTES 3 AND 6, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.		Total.	
		Versts.	Versts.	Miles.	
	JIZAK				General direction—east. Good post road throughout, accompanied by telegraph. Stage 8 of Route 18.
1	BADAT (NAN-SANGIN)	20½	...	...	"Badat" according to Russian Staff Map.
2	ZAMIN ...	31½	...	...	Fortified post. Small town watered by a tributary of the Zarafshan river. Roads south to Ura Tapa and Varzimnor, Nos. 61 and 62.
3	SAVAT ...	23½	...	...	Village.
4	URA-TAPA (URA-TUBE)	32½	109½	72½	Elevation 2,700 feet. Town (of 12,000 inhabitants) with Russian garrison and large bazar, situated in a fertile hill tract. A stream passes the town over which are several bridges. Chief trade, pottery-ware and horses. In the district is also a glass factory. Good vines grow without artificial irrigation. A road joins north from Chiuzuz, and Nos. 61 and 62 lead south to the upper Zarafshan valley.
5	KHOSH-TAISKAYA (NAUGANDI) ...	22	...	...	Russian Map—"Khosh-Tailskaya."
6	GOR-NAU (NAU) ...	20½	...	...	Small town in a well cultivated valley.
7	KHOJEND ...	26½	...	...	See stage 7 of Route 19. Entrance to Fergana valley. Post road runs on east to Kokand and Margelan.
			178	118½	

Route No. 21.

FROM SAMARKAND TO BOKHARA, (1ST ROUTE. BY LEFT BANK OF ZARAFSHAN.)

Authority—KOSTENKO AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
		Versets.	Versets.	Miles.	
	SAMARKAND ...	...	...	...	Wheel road parallel to the Railway. Follows the Zarafshan river. Formerly the post road between Samarkand and Bokhara.
1	DAUL ...	21½	...	...	Elevation 2,150 feet. Large city; terminus of Trans-Caspian Railway and capital of the Samarkand Province and district. Chief post and Telegraph offices. The Railway Station is three miles from the town,—see stage 13 of Route 18.
2	CHIMBAI ...	23	...	...	The first 13 miles from Samarkand is through gardens.
3	KATTI-KURGAN * ...	21½	66	...	Pass village of Kamaran, after which road enters a defile along clay hills on one of which is a walled enclosure known as fort Zarwat; at one mile further on, pass village Ashik-Ata on edge of high clay steppe; 9 miles on, pass village of Kara-Su, then for 8 miles the road is along high bank of Zarafshan.
	SHIRIN-KHATUN† ...	...	...	...	Formerly an important town of Bokhara, and after its capture occupied by a Russian garrison as a frontier post towards Bokhara. It is surrounded by mud walls of some strength. The citadel is a quadrangle of sun-dried bricks built upon a plateau having a command of 60 feet over the town. The town is situated in the midst of gardens in a depression on the left bank of the Nurapai Canal which, flowing round its northern wall, supplies it with water and irrigates the district in its vicinity. There are also tanks attached to the mosques, but the water is bad owing to the refuse of the town. Roads from here diverge—north through Paishamba to Nurata and south to Karshi,—(No. 30-A).
4	ZIA-EDDIN ...	42	...	...	Country open, slightly undulating, good for travelling. The hamlet of Zira Bulak (now a Railway station) is passed at 8 miles from the place of crossing the Nurapai Canal by a wooden bridge in Shirin-Khatun.
	Carried over ...	...	108	72	Bokharan territory commences. The road runs through the beautiful, cultivated Zarafshan valley up to Tash-Kuyruk, (2 miles 5 furlongs beyond Zia-Eddin) whence to Kernine is through open country with gardens and fields on the right, and on the left, waste land bounded by a low ridge of hills. From Kernine there are gardens for about 8 miles, and then the road crosses the waterless steppe of Malik straight to the village of Kham-Rabat. From Kham-Rabat right up to Bokhara the road runs through a well cultivated district. From Kernine Route No. 30 strikes south to Karshi.

* For other information about Katti-Kurgan see also Route 30-A.

† Not shewn on Map.

ROUTE No. 21—*contd.*

FROM SAMARKAND TO BOKHARA (1ST ROUTE).

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
		Versts.	Versts.	Miles.	
	Brought forward ...	...	108	72	
5	KERMINÉ ...	35			
6	MALIK ...	16			
7	BUSTAN ...	27	...	...	Road north-west to Hish-Duvan, 17 versts.
9	KUYUK MAZAR ...	25	...	...	From here another road* diverges to Bokhara by the village of Gurbun, 15½ miles.
10	BOKHARA ...	20	...	...	From the village of Bogu-eddin to the city, (9 versts) the road passes through a broad avenue. Irrigation cuts bridged.
					The route on the whole is good and fit for passage of artillery and trains, but is dusty in summer and muddy in winter.
					The native town of Bokhara is 8 miles from the Railway station and Russian town. They are now connected by an excellent carriage road.
			232½	155½	

* Not shown on Map of 1903.

Route No. 22.

FROM BOKHARA TO SAMARKAND, 2ND ROUTE, (BY RIGHT BANK OF ZARAFSHAN).

Authority—RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
			Vershs.	Vershs.		Miles.
	BOKHARA.				<p>This route, according to the Route map, is fit for wheeled traffic up to Paishambe, from which point carts apparently cross the Zarafshan river to Katta-Kurgan, and then follow the 1st Route (No. 21) up to Samarkand. There is another route by Yani-Kurgan and Dagbit for this part (Stages 8 to 12 of this), but it is not fit for carts according to the Route map. Kostenko makes it pass through Metan and Chulek, but that road joins on to the post road between Samarkand and Jizak, a long way from the former.</p> <p>The road passes through the Zarafshan valley, excellently cultivated and thickly populated. Brooks and canals intersect it. Between Gulkend and Yani-Kurgan (stages 7, 8, and 9), the road runs through an uninhabited steppe district for a short distance according to Kostenko, after which to Samarkand the character is as at first.</p> <p>On the heights of Chichagata, about $1\frac{1}{2}$ miles to the south, is the residence of the Beg at Fort Khatircha.</p> <p>A road south crosses river to Katta-Kurgan, and joins Route 21.</p>
1	SAR-I-PUL ...	22	...	...
2	HISH-DUVAN ...	22			
3	BADA-DUGI ...	25			
4	TASH-KURGAN ...	22			
5	KALKAN-ATA ...	$8\frac{1}{2}$			
6	GORDIAN ...	$29\frac{1}{2}$			
7	GULKENT ...	21	...	...
8	PAISHAMBE ...	20	...	...
9	YANI-KURGAN ...	$38\frac{1}{2}$			
10	LAISH ...	10			
11	DAGBIT ...	22			
12	SAMARKAND ...	$15\frac{1}{2}$			
	TOTAL ...		256	$170\frac{1}{2}$	

Route No. 23.

FROM BOKHARA TO CHARJUI.

Authority—KOSTENKO, ROUTE 128, RUSSIAN ROUTE MAP, 1893,
AND COLONEL LE MESURIER.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
		Versts.	Versts.	Miles.	
	BOKHARA.				Road and railroad. Follows the Zarafshan river as far as the small lake of Kara-Kul, in which the latter terminates. (The water in the river is apt to give guinea worm.— <i>(Le Mesurier)</i> . Up to Kara-Kul the road runs through a continuously populated oasis.
	SIABH-I-ISLAM				Village, not shewn on Route Map.
1	YAKA-TUT ...	32	...	...	Cross Zarafshan. Kara-Kul Railway station and town are on right bank of Zarafshan. In dry seasons the water fails to reach the town.
2	KARA-KUL ...	24½	...	...
3	KHOJA-DUVANA ...	20½	..	...	Distance according to rail. The route up to Iliyat (about one-third of the distance) is fairly cultivated; trees, canals, and houses all the way, and a fair traffic in camels and donkeys carrying cotton, &c.— <i>(Le Mesurier)</i> .
4	BITIK ...	20½			
5	FARAB (passage of Amu Daria.)	7	...	...	Distance from Khwaja-Daulat, according to <i>Le Mesurier</i> , 17 or 18 miles. By rail it is 14. Road difficult, the whole march being through the sands of Sundukli. About half way is a salt plain nearly a mile wide, with hard, crisp surface, in many places glistening white. In the moving sands which follow the track is often obliterated.— <i>(Le Mesurier)</i> .
6	CHARJUI ...	8	...	...	Distance of Charjui from Bokhara according to Curzon is 70 miles. <i>Kostenko</i> gives the length of this route as 101, which is evidently too much.
			112½	75½	

Route No. 24.

FROM CHARJUI TO KERKI (BY RIGHT BANK OF AMU DARIA).

Authority—RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.	Total.		
		Verss.	Verss.	Miles.	
	CHARJUI.				According to a Russian map published in St. Petersburg to accompany M. Rodzevitch's sketch of the Trans-Caspian Railway prepared by him for the Central Asian Exhibition held in Moscow, 1891, this road is shown as fit for carts from the second stage (Kuchi) to the end.
1	FARAB ..	8	...	...	On left bank cross to Farab on right.
2	KUCHI ...	23			
3	BAKI-JAN ...	18	...	...	This stage can also be reached and perhaps more conveniently, by following road on left bank to Sakar (11½ verss.), and thence leaving the main road and following another for 23½ verss., which strikes the river opposite Baki-jan, where it can be crossed.
4	ARAZIM ..	11	...	...	Station of Amu Daria flotilla.
5	BA-TASH ...	21			
6	BURDALIE ...	27½	...	...	Bokharan town and station of Amu Dar flotilla, (see stage 6 Route 25). Roads north from Bokhara No. 25, and east from Kars No. 32.
7	MAKAN ..	24½			
8	AZEET-BASHIE ..	21½			
9	KHOJA-JAMBAZ ..	24½			
10	KIRK ULI ...	22			
11	THE RIVER OPPOSITE TO KERKI.	19½	...	...	Ferry to Kerki. Wheel road from Karshi (No. 3) joins, and No. 26 goes on south-east to Kelif. Kerki is a most important advanced Russian military station and fort on the left bank of the Oxus. There are three large ferry boats which are towed by swimming horses.
			221½	147½	

Route No. 25.

FROM BOKHARA TO ANDKHOI *via* KERKI.*Authority*—RUSSIAN ROUTE MAP, 1893, AND ROUTES IN ASIA, No. 14.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.		Total.	
		Versts.	Versts.	Miles.	
	BOKHARA				General direction south.
1	AK-MAZAR ...	28	...	...	Cross railway at Sarai, 9 versts south of the native city, and about 8 miles west of Bokhara Railway station, and the Russian town of Bokhara.
2	KUSHK-AB ...	40	...	...	This stage in "Routes in Asia" is given as Khush Rabat, but the well of that name lies a few miles to the north-east on another track not shown on the route map, and apparently disused. The road up to here is over a steppe, which in spring is covered with luxuriant grass, and forms the pasture land of the famous Bokharan or Kara-Kul sheep. Onwards from here it is through sand.
3	BULAK ...	19	...	...	A road west to Narazim on the Amu Daria is shown here. Nothing known about it.
4	NAKHT ...	18	...	...	A road west to Narazim shewn on map of 1893, distance 47 versts.
5	KULUK ...	7			
6	BURDALIK ...	35	147	97½	Formerly a place of some importance. Russian maps show a fort here. It is also a station of the Amu Daria flotilla. The town is being encroached on by the river on the south, and by the moving sands of the desert on the north. Road east to Karshi (Route No. 32).
11	KERKI ...	147	262	173½	Stages 6 to 11 of Route No. 24. Cross to right bank of Amu Daria.
12	KIZIL-YAK ...	23	...	...	Road branches south-east along river to Kelif.
13	ZSID (wells)	16½	...	...	Water bad. The whole country is one dry barren plain, only occasionally producing a sort of thistle, which is the favourite fodder of camels.
14	KHALDAR (well)	16½	...	...
15	IMAM-NAZAR ...	16½	...	...	At about 6 miles pass Dagchi wells. Afghan frontier.
16	ANDKHOI ...	36½	...	...	Afghan town in a ruinous condition. Capital of a small district. Wells in the town brackish. The water in the Ab-i-Andkhohi river is also bad.
			370½	247	From Andkhohi a road runs south by Daulat-Abad to Maimana and Bala Murgab.

NOTE.—The road from ANDKHOI to SHIBARGAN runs south-east over generally open and level country. Troops could be marched, except during the months of February, March, and April, and in wet weather, when it would be almost impossible. Even in January and May there might be much difficulty. The stages and distances are :—

	Miles.
1. Ziarat-i-Shah Mardan ...	5
2. Khwaja Do Koh ...	23
3. Shibargan ...	11½
TOTAL ...	30½

Route No. 26.

FROM BOKHARA TO MAZAR-I-SHARIF ALONG THE OXUS *via* KERKI AND KELIF
(1ST ROUTE).

Authority—KOSTENKO, RUSSIAN ROUTE MAP 1893, AND AFGHAN BOUNDARY
COMMISSION RECORDS.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
6	BOKHARA. BURDALIK ...	147	...	...	For stages 1 to 6, see stages 1 to 6 of Route No. 25.
11	KERKI ...	115	...	173½	See stages 6 to 11 of Route No. 24. From Burdalik the road is fit for arabas. At Kerki there are three large ferry boats, which are towed by horses.
12	KHATAB ...	21			
13	MUKBI ...	20	...	...	Ferry. Not now working.
14	AK-KUM ...	23			
15	KHOJA-SALAR (KWAJA-SALEH). ...	19½	...	...	Ferry over the Amu. Disused; transferred to Kelif.
16	MINGAJIK ...	17			
17	KELIF ...	13	...	247½	A very important place of crossing of the Amu Daria river, the passage being effected in flat-bottomed boats towed by swimming horses. They carry at a trip 30 horses or 15 laden camels, or 100 infantry each. The stream is about 330 to 470 yards wide, according to the season, and flows between two hillocks. The passage is made in from 10 to 20 minutes. In spite of the narrowness of the channel, the current is not extremely rapid. There are not many ferry boats available at present (about six according to latest information), but many <i>kayaks</i> could be collected if necessary. The passage is commanded by the south bank. For full particulars of the Kelif ferry, see Afghan Boundary Commission Routes, Turkistan Series, Route No. L
22	MAZAR-I-SHARIF ...	63	...	302½	Route 39 or Route 40. These are two main routes, but there are other auxiliary roads, and it must be remembered that the country is open, and various combinations are possible. The distance given is that of the shortest estimate we have, <i>viz.</i> , that of the Intelligence party of the Afghan Boundary Commission (<i>vide</i> Route 40, last stage, and Note).
			458½	305½	

Route No. 27.

FROM BOKHARA TO MAZAR-I-SHABIF *via* KARSHI, GUZAR, KUGI-TANG AND KELIF
(2ND ROUTE.)

Authority—KOSTENKO AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	BOKHARA.				
6	KARSHI ...	153½	...	...	Stages 1 to 8 of Route No. 28.
8	GUZAR ...	44½	198½	131½	
9	TAKA-SHUR (WELL).	37½	...	...
	..				<p>This is the direct route from Guzar to Kelif, but there is also another by Kirkinchak and Iastao-Tuda Route No. 31, which is much better, though a little longer. First 7 miles in the Guzar plain past wheat fields, smooth and suitable for travelling; then a difficult descent is made from the Kizil-Ur limestone mountains into the bed of a saltish stream, which is then followed. The road often crosses from one bank to the other by the stony slopes of the channel, splitting up into several paths. The whole road along the channel is very difficult, especially in the defile of the San-Bron stream, which has its source at a spring to one side of the road. At 10 miles from Guzar the brackish wells of Chirbuchu are met with on the road. Here the road leaves the stream and rises over the Taa mountains, which it leaves by another difficult descent into the Janulak valley (at 6 miles from Taka-Shur); the exit from this is by the difficult Patala Sai defile, which winds through the rugged mountain mass of the Adam Tash. Then cross a dry ravine and reach Taka-Shur well.</p> <p>The whole of this long march is difficult, destitute of fresh water, and requires a good deal of making. At Taka-Shur are a few "auls" of Uzbeks of the Kung-rad tribe.</p> <p>The water in the wells is bad, although fit for drinking in case of necessity. Tenga-Khoram is not more than 4½ miles from Taka-Shur.</p>
10	BATKAK-JARIK* ...	12	...	...	<p>The first portion of the march winds through hills covered with burnt up grassy vegetation, and partly through the dry bed of a stream. The Kara-Chash range is seen to the left of the road for some miles after leaving Taka-Shur. The road then enters a difficult limestone defile, and makes its way by a narrow path amongst fallen masses of rock. At 5 miles there is a well on the near side of the bed of the Tagai Temir, and 1½ miles further on are the four brackish wells of Batkak (for sheep). The road from here runs east, following the hollow of the Gul-Bulak, in which flows a slightly salt stream of the same name. The road here is difficult and stony, running over the <i>débris</i> of rocks. The path is often obstructed by huge masses of rock.</p> <p>On this march many places are met with where the road requires regular making, especially on the Tagai Temir defile, and at the end along the Gul-Bulak stream.</p> <p>At Batkak-Jarik is an "aul" situated in an extensive field, and three wells. Here also flows a small spring of the same name.</p>
	Carried over ...	...	236	157½	

* Not shown as a stage on map of 1893.

ROUTE No. 27—*contd.*FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, KUGI-TANG, AND KELIF (2ND ROUTE)—*contd.*

Number of Stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Verss.	Verss.		Miles.
	Brought forward ...	...	236	156½	
12	ABDULLA-KHAN (KAR- CHAK). ¹	31			<p>Up to 6 miles there are wheat fields. Road is through a rather narrow valley, and then a very difficult ascent up the steep and precipitous Ak-Tan height. Part of this, however, can be avoided by following the Tula-Sui water-course. The descent is by zig-zags on a path strewn with sharp stones overhanging a precipice. At 8 miles the mountains are passed, and the road runs in the even grassy valley of Tulesh at the foot of red sandstone hills. At 9 miles a natural cistern is met with, with muddy rain water, which dries up towards the end of summer. The cistern is edged round with stones. A mile further on is the brackish Tulesh well, which has given its name to the whole valley. This stage is difficult owing to the waterless district through which it passes and the steepness of the ascents and descents. The road over the Ak-Tan would require regular making.</p> <p>At Karchak is a wintering hut and the ruins of a rabat (sara) of Abdullah Khan. The water of the Karchak-Daria is here perceptibly salt, but where the road crosses it 2 miles ¾ furlongs further on towards Kugitang, it is fresh and good.</p> <p>Three roads run from the Karchak wintering hut—</p> <p>1st to Karshi, 60 miles. There is good water on this road at 16 miles, but the remaining 52 run past salt wells over mountains and steppe,</p> <p>2nd to Tenga-Khoram.²</p> <p>3rd to Guzar.² This is the greatest road for traffic, but is difficult. It is practically a parallel road from Guzar up to here.</p>
13	KUGI-TANG ...	20½	287½	190½	<p>The road ascends by a broad easy valley from the Karchak-Daria to the lofty Karchak-Bel pass, which occurs at 2 miles. The descent from the pass is difficult owing to its steepness. At 4 miles, road crosses another road leading from Karshi <i>via</i> the village of Khwaja-Ipil (¼ miles higher up the Kugitang defile) to Derband and Baisun. This road leads out at the Shur-Ab spring at the entrance to the Derband defile, and, according to the natives, is very difficult. From here the road is good and even, but very winding, as it lies through a defile. This defile bears the name of Beglar-Kuduk from the well at its exit ¼ miles from Kugi-tang. The water in the well is brackish and only used for watering sheep. From this point the road runs eastwards past red sandstone rocks along the bank of a ravine running into the Katta-Jar defile. At a mile before reaching Kugi-tang the road crosses the dry ravine of Katta-Jar.</p> <p>In Kugitan the road crosses the Kugi-tan-Daria by a ford. The Kugi-tan-Daria is a swift mountain stream which by means of its canals gives life to the whole valley from Kugi-tang to Kalluk. Kugi-tang is a large and densely-populated village. There is a bazar twice a week, on Wednesdays and Saturdays. All the neighbouring nomads bring their produce here. It is the only bazar between the Amu Daria and Guzar. There are lead mines in the high mountains near. Large supplies could be collected here for Kelif according to Kostenko, as the resources of the Shirabad valley are insufficient. Roads from Kugi-tang diverge:—</p>
	Carried over ...	...	287½	191½	

¹ Karchak is shewn at Abdullah-Khan rabat on map of 1893.² These roads are not shewn on map of 1893.

ROUTE No. 27—concl'd.

FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, KUGI-TANG, AND KELIF (2ND ROUTE)—concl'd.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versets.	Versets.	Miles.	
14	Brought forward ...	...	287½	191½	<p>1. South-east to Shirabad fit for pack animals, and might be made fit for wheels, Route 35.¹</p> <p>2. To Tenga Khoram, Route 34.</p> <p>Road at first through fields to the village of Kara Agach, situated at the commencement of the ascent to the high stony At-Gaz pass in a narrow winding ravine. This ascent is particularly difficult, steep, and stony, but may be avoided by riding in the water channel leading from the very summit. Here the road is quite even, though more winding, and consequently longer. At-Gaz is the pass over the Kugi-tang Tau mountains. The descent towards Khwaja-Kara is not difficult. The road follows a valley watered by the Ak-Arik, bordered by the Kugi-tan-Tau on the left, and by a long range of hills on the right, bearing different names at different points, viz., Khwaja-Shulluk, Aujai, and its further spurs, Gaba.</p> <p>On the branches of the Ak-Arik lie the arable fields of the villages of Altin-Tubé and Tash-Kishlak. Both these villages lie closer to the range opposite to the Kugi-tang Tau. At 2 miles 5¼ furlongs from Khwaja-Kara is the village of Tapur on the Kairma canal brought from the Ak-Arik.</p> <p>Instead of stopping at Khwaja-Kara which a difficult road leads, a detachment may halt in the Ak-Arik Valley. Road on this march requires putting in order.</p>
	BAZAAR-TUBE ...	16	...	...
	KHWAJA KARA (KHWAJA KANA). ²	...	...	...
15	KALLUK (KHWAJA-KISHLAK). ²	...	...	...	<p>Road follows generally the same valley watered by the Ak-Arik, but rises over the spurs of the Kugi-tan-Tau on to a limestone hill called Ak-Jar. This, however, may be circumvented by keeping to the valley. Kalluk is a large and comparatively rich village in a swampy salt-soil locality. At the village itself the road crosses a deep canal running out of the Ak-Arik, which itself is led in from the Kugi-tang Tau stream. The road on this march does not require putting in order; the difficult places may be passed round.</p>
	OGUZ-DULAK ...	37	...	...
16	KELIF ...	17½	359	237½	<p>Road runs south-east from the village of Kalluk, following the direction of the foot of the Kugi-tang Tau range, till it meets a road running to the fields of a village under the Khwaja-Kainar hills. From thence it lies in a broad valley bordered on the left by the Khwaja-Sengil mountains, and on the right by the low Kizil-Khum range; it then enters the hills, and follows the bed of the Kat Sai in an even wide stream, and beyond that crosses the low Khwaja-Sengil range. From here the road is south, on an even salt-soil steppe (the general character of the whole tract along the Amu Daria), intersected by low ranges of hills running in a south-easterly direction. The salt track is inundated in places by the overflow of canals running from Oguz-Arik to Kelif. At 6 miles 5 furlongs from Kelif the direct road is left by a road leading to the Kempir-Dahan defile, and further by the Karez-Atlik Valley and Guz-Sai to Shirabad.</p> <p>For description of Kelif, see stage 17 of Route 26.</p>
19	MAZAR-I-SHARIF ...	63	441	294	<p>Route 30 or 40. Distance here that of latter as estimated by Intelligence party Afghan Boundary Commission.</p>

⋮ } Not shewn on map of 1893.

Route No. 28.

FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, SHIRABAD,
AND THE CHUSHKA-GUZAR FERRY (3RD ROUTE.)

Authority—KOSTENKO, ROUTE 127; ROUTES IN ASIA, 11 AND 25. RUSSIAN
ROUTE MAP, 1893, AND THE JOURNEY OF THE RUSSIAN EMBASSY
TO KABUL, 1878-79.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Verss.	Verss.		Miles.
	BOKHARA.				Caravan route. General direction S. E. This is a main road, and, if not already so, might soon be made suitable for the passage of wheeled traffic. There is a detailed plan of this route (from Guzar onwards) in the Journey of the Russian Embassy, 1878-79.
1	LAKE KUNJA KUL ...	17½	...	...	At about 7 miles south of the city cross railway about 4 miles west of the Bokharan Railway station and Russian town. The country is cultivated nearly up to the lake, which is a small salt one.
2	KARAU BAZAR (KARAWAR).	47½	...	...	The road is over a salt track; then stony sand without any vegetation. Karaul is a large, half-ruined serai with small bazar and a cistern and well of brackish water. It is nevertheless spoken of in Routes in Asia as the great central halting place for the whole Karshi steppe. The sardabas from here to Khwaja-Mubarak were built by Abdullah Khan, and are now falling into a state of decay.
3	SARDABA-KAKIR ...	16½	...	...	Road over steppe. At Kakir is a cistern of water, a large serai for caravans, and a house for the Amir in the event of his wishing to cross the steppe.
4	KHOJA-MUBARAK (VILLAGE).	23½	...	...	At about 5 miles come to a quicksand, swamp or lake, according to the time of year. This is the Mahi-kul (fish lake), and it is formed by the overflow of the Kashka Daria (flowing north west), which brings a quantity of fish which perish and putrify when the water dries up. Consequently in spring and even summer caravans make a long detour to avoid this place. There are many cisterns and serais on the road. There is not always water in the former, and in summer it is generally bad when there is. Khoja-Mubarak is a simple halting-place for caravans, and consists of a few tea-houses and victuallers' shops. Water is supplied from a canal brought from the Kashka-Daria. There is water in a cistern 3 miles 2½ furlongs before arriving at Mubarak.
5	KASAN (KASBAN VILLAGE).	32½	...	...	The road is over a bare waterless steppe, the only thing growing being clumps of the Isirik grass (used by the Bokharans for curing all diseases). From Maimana there commence little inhabited oases which look like dense green patches on the grayish yellow plain. Until Maimana (to west of the road about two-thirds of the distance) the desert reigns supreme. Kasan is a large commercial village, situated on the edge of the Karshi oasis. Wheel road north to Kermine, No. 30.
6	KARSHI ...	24	163½	109	The road from Kasan is through the continuously inhabited district of the Karshi oasis. The last 5 miles, from Ishan-Shaida it runs parallel with the river. Tilled fields stretch away on both sides. Karshi is a large Bokharan town, ranking in size and commercial importance next to the capital. It is watered by the Kashka river in spring and winter, and by wells and tanks in summer.
	Carried over ...	...	163½	109½	

ROUTE No. 28—*contd.*FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, SHIRABAD, AND
THE CHUSHKA-GUZAR FERRY (3RD ROUTE)—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.		Total.	
		Versts.	Versts.	Miles.	
	Brought forward ...	...	163½	109½	<p>The Kashka Daria is crossed by a brick bridge, the wooden roadway of which is said to be yearly carried away by floods in spring. The river flows north of the town, and is soon expended in cultivation and sand.</p> <p>Karshi is a large grain mart, and is rapidly growing in importance in every way. A very full and interesting description of the town and oasis is given in the Turkestan Gazetteer.</p> <p>At Karshi roads join—</p> <p>(i) North from Kermine. A wheel road. (ii) North-east from Katta-Kurgan and Samarkand [several]. (iii) East from Chirakchi. South-east from Guzar and Derband. (iv) South from Kerki. (v) West from Burdalik on the Amu Daria.</p> <p>There is also a road direct south to Kelif over the mountains, but the only information at all about it is contained in Routes in Asia, Section III. It is apparently very little used.</p>
	TAKHTA-KUPRIUK (VIL- LAGH).*	...	—	—	The road lies through a populated district. The village of Takhta-Kupriuk lies on the Bish-Arik canal, which is bridged. From Takhta-Kupriuk the country is flat, slightly undulating, over steppe.
7	YANGIKEND ...	26½	—	—	The village of Yangi-Kend is a very poor one: it is situated on the river Guzar Daria. There is little water, so the inhabitants use well water. From here to Guzar the road is even and good. Villages are seen on each side. At the town is a ford over the Guzar-Daria. About half way pass the two kishlaks of Poyan-tapa surrounded by gardens.
8	GUZAR ...	18½	208½	138½	<p>The town is described by Kostenko as a large one with a strong citadel and one of the most important in the Bokharan Khanate. It forms the commercial centre to which the nomads drive their flocks in enormous quantities for the great weekly bazaars on Thursday; 3,000 head are driven in every week. The nomads also bring in wood, salt, and lead.</p> <p>Guzar lies at the entrance to the easily traversed Guzar defile, which commences at 5 miles 2½ furlongs from the town. One can camp at Guzar on the canal led from the Guzar Daria. The Guzar Daria is a muddy, reddish brown stream with a swift current, and is formed from two torrents, the Katta-Uru Daria and Kichin-Uru Daria. It is fordable.</p> <p>Roads from Guzar diverge :—</p> <p>(i) North to Chim Kurgan, Jam, and Samarkand, No. 55. (ii) South to Kugi-taug and Kelif, Nos. 27 and 34. (iii) East to Kalta-Minar and Sharshauz.†</p>
	Carried over ...	...	203½	139	

* Not shown as a stage on Map of 1893.
Or Shahr-i-Subz.

ROUTE No. 28—*contd.*FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, SHIRABAD, AND
THE CHUSHKA-GUZAR FERRY (3RD ROUTE)—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	Brought forward ...	...	208½	130	
9	KOSHLUSH ...	19½	...	...	From Guzar the road lies along the right bank of the Guzar Duria stream in a broad valley, and is perfectly practicable for <i>arabas</i> . Koshlush is a large village on the right bank of that stream. From Koshlush for the first 10 miles, as far as the village of Tengha-Khoram* the road lies in a mountain valley about two-thirds of a mile in width, and near the village crosses the swift, but not deep, Kichuk-uri stream. From here the road leads by the valley of the Kansai stream for 12 miles to the inconsiderable, but stony, Hafiz-Jan defile, through which a stream flows; it then lies in the valley of the Hafiz-Jan Duria as far as the village of Chashmah-i-Hafiz Jan, crossing the stream six times. The road is fit for wheels throughout.
10	TENGA KHORAM ...	20	...	...	* For full description of Tengha-Khoram, see Route 34, stage 2. Chashmah-i-Hafiz Jan is an inconsiderable village lying at the source of the stream of the same name. From here the road lies through a mountain valley, over firm sandy soil, and is quite practicable for <i>arabas</i> .
11	AK SARAI AND THE IRON GATE.	35½	...	...	Ak-Sarai is an inn on the banks of the stream. From Ak-Sarai the road leads through the defiles of the Iron Gate and the Shur-Ab. For the first 3 miles 2½ furlongs the road passes over firm sandy soil, and presents no obstacles whatever to <i>araba</i> traffic. Near the Charchak pass, however, a descent commences into the defile called the Iron Gate, Buzgola Khana (<i>Russian</i> Jeleznia Vorota), which is quite impassable for <i>arabas</i> without previous preparation of the road. At first the road leads for 70 yards along a deep crevice by an artificial cornice, 4 feet wide, and beyond by a steep descent obstructed with round stones. For the free movement of <i>arabas</i> here it would be necessary to widen the cornice to 5 feet, and then clear the road of the round pebbles for a distance of at least two-thirds of a mile. The further descent of the Iron Gate is tolerably gentle, and, although obstructed with pebbles in places, it is nevertheless practicable for <i>arabas</i> , especially in the dry sandy Chikcha hollow extending on the left, parallel to the road. The defile of the Iron Gate itself is 2 miles long and from 14 to 23 yards in width, and with its even and firm, sandy soil presents no impediment whatever to wheel traffic. The road beyond, for a distance of 3 miles 2½ furlongs, as far as the Shur-Ab defile, is also practicable, but there it again requires making. This latter defile, through which flows the small Shur-Ab stream, extends for 1½ miles, and is obstructed with large fragments of hill limestone. On issuing from the defile the road rises steeply out of the Shur-Ab hollow, and then extends for 4 miles 5 furlongs over a fairly
	Carried over ...	...	203½	105½	

ROUTE NO. 28—*contd.*FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, SHIRABAD, AND
THE CHUSHKA-GUZAR FERRY (3RD ROUTE)—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.		Total.	
		Versts.	FMSs.	Miles.	
	Brought forward ...	...	203½	196½	even tract, and finally again rises steeply up a strong slope for a distance of ½rd mile. For the free movement of <i>arabas</i> from the entrance to the Shur-Ab defile to this slope, it is absolutely necessary (1) to clear the road in the defile of large stones; (2) to construct a more gentle ascent out of the Shur-Ab defile; and then (3) to widen the road at the ascent of the strong slope.
12	SHUR-AB (VILLAGE) AND DEBBAKD.	28	...	...	For the last 9 miles to the village of Shur-Ab the road lies in a mountain valley about ½rd mile in width, and the soil, being firm clayey sand, presents no obstacles to <i>araba</i> movement. Road (No. 57) from Shahr-i-Sabz joins at Ak-Sarai from north-east. Shur-Ab is a rather important village lying on one of the affluents of the river Shirabad. From Shur-Ab the road running over firm sand soil gradually descends by a hill valley about ⅓rds of a mile in width. At 8 miles from Shur-Ab it crosses a small stream flowing in a deep, but not wide, hollow. The banks of this ravine are united by a narrow wooden bridge, which would require regular rebuilding to permit of the passage of <i>arabas</i> . Beyond the road lies in the valley of the Shirabad Daria stream, and up to Lailiakon offers no impediment to the movement of <i>arabas</i> . Lailiakon is a moderate-sized village scattered along the banks of the Shirabad Daria. The water here is somewhat saltish to the taste, but fit for use.
13	LAILIAKON (VILLAGE)	46½	...	...	From Lailiakon the road, as before, descends by the gentle valley of the Shirabad Daria, and is practicable for wheel traffic. At 4 miles 5 furlongs from Shirabad the road twice crosses the stream, which, however, presents no difficulties at the points of crossing; for the free passage of <i>arabas</i> , however, it would be necessary to clear the descents of the stream of large stones.
14	SHIRABAD, TOWN OF ...	19½	386	255½	The town of Shirabad, with several neighbouring villages, lies at the very foot of the mountains. The Shirabad Daria flows through the town with clear but saltish water. The taste of the water is here spoiled by the hill salt, which is found in abundance in the neighbourhood. The climate of Shirabad is injurious to health, and the whole population suffer from slow fevers the whole year round. It is, however, one of the most populous towns in the southern portion of the Bokharan Kharate. Its gardens extend for about a mile on the road to the hills (south-west), and almost as far in a southern direction. The streets of the town are very narrow, so that they serve exclusively for traffic on horseback and with pack animals. There is not a single <i>araba</i> in the town, as is also the case in the other towns of the southern portion of the Khanate of Bokhara. The road to Kelif runs in a south-western direction from Shirabad towards the hills. This is the shortest means of communication between them (Route 37), but the most convenient route is by Buz-Rabat and along the Amu past the Kara-Kamar ferry. Route 38
	Carried over ...	...	386	254	

ROUTE No. 28—concl'd.

FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, SHIRABAD, AND
THE CHUSHKA-GUZAR FERRY (3RD ROUTE)—concl'd.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Intermediate.		Total.	
		Yerss.	Yerss.	Miles.	
	Brought forward ...	...	380	254	
15	BOZ-RABAT ...	31½	...	...	After leaving the cultivation around Shirabad, which extends only for a few miles in this direction, the road is south-west over an open steppe of fertile soil, but barren owing to the want of water. To the east the steppe is bounded by the Shirabad mountains 6,000 to 7,000 feet. Near the village of Boz-Rabat are the ruins of a fort, town walls, and houses. The water from the Shirabad Daria is said only to reach this village about once in three years. A road branches south-west from here to the Kara Kamar and Kelif ferries. (Route No. 3s).
16	CHUSHKA-GUZAR * ...	13½	430½	287½	From Boz-Rabat the road is over a sandy steppe utterly devoid of vegetation until a few saxaul bushes are met with among the sand hills near the river. The sand in places is very deep and the going heavy. The Amu is here fringed with a belt of verdure on both sides. Chushka-Guzar is marked on the Bokharau side by a small hamlet of Esari Turkoman huts. On the Afghan bank is the village and custom-house and mound of Shor-Tapa. The mound is a very conspicuous object, and it is not surprising that the ferry has sometimes been known as that of Shor-Tapa from it. It is ½ mile broad with mud banks. There ought to be eight boats, carrying 20 horses, with their riders, or 15 laden camels each. The passage takes nearly an hour. At about 3½ to 4 miles from the Afghan landing place is the village and bazar of Karajah, the usual halting place for travellers crossing the ferry. The road to it is at first through marshy ground, and then wheat and maize cultivation, and over the Karajah canal. The Chushka-Guzar ferry will be found described more in detail in the Afghan Boundary Commission Routes, Turkistan Series, page 65. All the latest Russian maps show this ferry as on the main road.
17	KARSHIYAK ...	Milest†	25½	...	Road over desert. Pass Altin-Tapa, 15 miles from the Karajah village. Kas kiyak is watered by an arik brought from the Balkh river. The village is situated in thick cultivation and rich corn fields. It has about 200 houses, and abounds in fruit gardens. The inhabitants are Uzbegs. Yavorski gives the distance of Karshiyak from Chushka-Guzar as 33½ miles.
18	DEH-WALI AND MAIDAN (VILLAGES).	9½	...	...	Route at first through villages, and then of generally desert character. The villages passed are Daulatabad (3½ miles from Karshiyak) and Ak-Dan. Halt can be made at Daulatabad. From here to Mazar is through cultivation and "juis" past the fort of Langar-Khana. Distance according to Yavorski 18½ miles.
19	MAZAR-I-SHARIF ...	20	...	...	Description of the routes from the river to Mazar i-Sharif is also given in Afghan Boundary Commission Routes, Turkistan Series, page 79, and Afghan Boundary Commission Records, page 274. The distances given in this Route are those estimated by the Afghan Boundary Commission. Yavorski makes the total from Chushka-Guzar to Mazar as 60 in one place, but according to the stages followed by the Mission even more. There is another (parallel) road by Balkh.
				342½	

* Note.—Captain Picot's report on the road between Shirabad and Chushka-Guzar is to the effect that it is said to be difficult owing to scarcity of fodder and water, and to pass over rough country; but it is much traversed by camel carriage.

† From Chushka-Guzar distances given in miles only.

Route No. 29.

FROM BOKHARA TO MAZAR-I-SHARIF *via* KARSHI, GUZAR, SHIRABAD, AND THE PATTA-HISSAR FERRY (4TH ROUTE).

Authority—KOSTENKO AND AFGHAN BOUNDARY COMMISSION RECORDS, AND MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	BOKHARA.					
6	KARSHI ...	109				} See stages 1 to 14 of Route No. 28.
8	GUZAR ...	25	1			
14	SHIRABAD ...	117	5	255	6	
15	SHUTURVAR ...	12	2	...	...	From Shirabad to Angar the road runs over an even steppe, and is fit for wheels. At 4 miles 5 furlongs from the village of Angar the road crosses the inconsiderable Kara Su stream with water saltish to the taste. Angar is a moderate-sized village on a canal with tainted and saltish water.
16	AK-TUBE ...	18	7	...	...	From Angar the road leads over a plain for a distance of 20 miles 4½ furlongs to the ruins of the town of Khairabad, and beyond by the bank of the Amu Daria to the moderate-sized village of Patta-Hissar, near which there is a crossing. The whole extent of the road is practicable for <i>arabas</i> .
17	PATTA-HISSAR (ferry over the Amu-Daria).	16	2	...	...	The passage of the Amu at Patta-Hissar is made at the junction of a branch with the main stream. The width of the river at this point is about 1,000 yards; depth from 10 to 50 feet, and the swiftness of the current is to 6 miles an hour. The banks are sloping; the right is covered with sand and the left with high reeds. The means of passage are two <i>kayaks</i> belonging to the Afghans and two on the Bokharan shore capable of carrying a company at a time; the time of passage from one bank to the other is 20 minutes. The river here is well adapted for bridging. Patta-Hissar is a very important crossing owing to its proximity in a direct line to Mazar-i-Sharif and to the auxiliary crossing of Chushka-Guzar. See also Afghan Boundary Commission Routes, Turkistan Series, page 74.
18	SIHGIRD (VILLAGE)...	19	7	...	...	From the Afghan shore the road for the first 6 miles lies over a tract overgrown with reeds and "saxaul;" after this the next 9 miles 2½ furlongs is over gentle sand hills; and finally the last 4 miles 5 furlongs through the remains of a ruined city. Sihgird is an unimportant village, and lies at the south-east extremity of the extensive ruins. Near the village flows a canal with clean and fresh water. The road for the whole distance is practicable for <i>arabas</i> .
19	MAZAR-I-SHARIF ...	17	1	...	...	From Sihgird to the town of Mazar-i-Sharif the road runs over steppe in a southerly direction, and is fit for wheels. Mazar-i-Sharif is one of the chief towns of Northern Afghanistan, and has about 30,000 inhabitants. Five miles 2½ furlongs to the west on the road to Balkh is Taktapul, the residence of the chief commandant of the district. For road from Patta-Hissar to Mazar as given in the Afghan Boundary Records, see Route 41.
				341	1	

Route No. 30.

FROM KERMINÉ (ON THE TRANS-CASPIAN RAILWAY) TO KARSHI.

Authority—RUSSIAN ROUTE MAP, 1893, AND GAZETTEER OF WESTERN TURKISTAN.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.	Total.		
		Versts.	Versts.	Miles.	
	KERMINÉ (KABMINA.)				<p>General direction south. A good cart road well supplied with water. Runs for the first stage over the spurs of the Zia-Eddin hills rising to the eastward, and from thence over the Bokharan steppe. Characteristics probably similar to those described in Route 43. Very little detailed information available.</p> <p>Branch road to Maimana south-west.</p> <p>Distance, according to the Gazetteer of Western Turkistan, 75 miles; but this probably refers to the road as following the branch through Kasan, as it is stated in the Gazetteer that the road runs through that place.</p> <p>For Karshi, see stage 6, Route 28.</p>
1	KARNAP ...	36			
2	TUTLI ...	16			
3	ABDULLA-KHAN (RUINS),	22½			
4	KARADAIB ...	30½	...	...
5	PULATI ...	12½			
6	KARSHI ...	22	139½	93	
			139½	93½	

Route No. 30-A.

FROM KATTI-KURGAN (ON THE RAILWAY) TO KARSHI.

Authority—RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Vershs.	Vershs.	Miles.	
	KATTI-KURGAN.				General direction south; then south-west. Road good and fit for all arms throughout. Characteristics same as those of Route 43.
1	ABDULLAN-DAGMA ...	19½			Stage 3, Route 21. An important Russian garrison on the Railway, and a convenient point for concentrating troops and supplies simultaneously with Samarkand for an advance towards Karshi and Kelif. Forms also a parallel advance to those from Samarkand and Kermine or Bokhara. According to the Gazetteer, the cattle of the district number about 37,000 sheep, 12,500 goats, and 11,000 horned cattle.
2	ULUS ...	15½	...	...	Road to Jam south, a little east, 11 miles.
3	MECHETLI ...	31	...	...	From Ulus to Mechetli is through hills. There is a hill path from Katta-Kurgan running direct south, and joining the main road here.
4	ISKANDER (ZIARAT) ...	12	...	...	Frontier of Bokhara.
5	SHIR-KAZI ...	19			
6	UZUN-KUDUK ...	23			
7	KARSHI ...				
			138½	92½	

Route No. 31.

FROM KARSHI TO KELIF (DIRECT DESERT ROUTE).

Authority—ROUTES IN ASIA, SECTION III, No. 11, AND RUSSIAN ROUTE MAP, 1893.

Number of stages,	Names of stages.	DISTANCES.		REMARKS.
		Interme- diate.	Total.	
		Versts.	Miles.	
	KARSHI ... ..	...	...	Direction south-east across the desert.
1	YANGI NISHAN	33½	...	Village, gardens, and cultivation. Water in abundance. Oasis ends here and desert begins.
2	KIRKINCHAK (KARKIJAK)	23	...	Twenty-nine wells, slightly brackish; wells 36 feet deep. Some forage for camels: none for horses.
3	KIZ-KUDUK	23	...	The maiden's well. One good well and 20 brackish. No forage procurable. Road through an undulating sandy desert, destitute of trees or wood, covered with a dry kind of grass growing on a hard and gravelly soil. The wells are about 16 feet deep.
4	CHILBUB	9	...	Fifteen wells, brackish water. Road through desert with a few jowasa shrubs.
5	ISFAN TUDA	25½	...	At Shor Kuduk fifteen wells and a spring, all brackish. According to Mohan Lall, the plain here is hard and fit for passage of wheeled vehicles.
6	SARDADA YURAK	22½	...	Ruined cistern, Sandy desert.
7	MINGAJIK	20½	...	At Turab-Kul two brackish wells. A little forage procurable.
8	KELIF	13	---	
		175½	117½	

Route No. 32.

FROM KARSHI TO BURDALIK ON THE AMU DARIA.

Authority—RUSSIAN ROUTE MAP, 1893, AND GAZETTEER OF WESTERN TURKISTAN.

Number of stages.	Names of stages.	DISTANCES.		REMARKS.
		Interme- diate.	Total.	
		Versts.	Miles.	
	KARSHI.			General direction south-west by west over steppe and sand. Described in Gazetteer as a good road, but no information beyond this is available about it. It is probably a fairly frequented caravan route.
1	YANGI-BAGLI	26		Stage 6, Route 28.
2	KHATCHA (WELL)	26		
3	KABAUL-KUDOK (WELL)	13½		
4	AL-KIZAK (WELL)	26½		
6	BURDALIK	27½		
		121½	81	85 miles according to Gazetteer.

Route No. 33.

FROM KARSHI TO KERKI.

Authority—ROUTES IN ASIA, SECTION III, No. 32, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Vershs.	Vershs.	Miles.	
	KARSHI.				A wheel road south-west by south over steppe and desert, but not very formidable. It is constantly used by nomads who feed their flocks on the steppes.
1	YANGI-NISHAN	33½	...	...
2	SANGIBULYAK	51½	...	...	A cistern.
3	KERKI	45	...	...	On the Amu Daria.
			130		
			130	86½	

Route No. 34.

FROM GUZAR TO KUGI-TANG *via* TENGA KHORAM AND THE AK-BASH PASS.*Authority*—KOSTENKO, ROUTE 140 AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	GUZAR.					
1	KOSHLUSH ...	13	...	...	...	} The road from Guzar <i>via</i> Koshlush to the point of Tenga-Khoram has already been described (<i>via</i> Route 28 stages 9 and 10).
2	TENGA-KHORAM ...	13	2	...	...
						<p>The point of Tenga-Khoram consists of four open spaces amongst mountains. The first open space commences at half way between Koshlush and Tenga-Khoram at a very perceptible projection of the Kara-Chash range. This space, about $1\frac{1}{4}$ miles wide, is twice intersected by the Kichik-Uru Daria. Beyond the projection a low range of hills separates it from the second open space of the same width covered with cultivation. The Kichik-Uru Daria here flows along the western edge of the opening. This space narrows to the north, and extends as a narrow defile for another $\frac{1}{2}$ mile. On issuing from the defile, a third smaller space opens out bordered on the left (west) side by precipitous rocks. The Kichik-Uru Daria intersects it twice. Here there is also cultivation, but to a less extent. The space is closed on the north by a low range over which the road runs, and issues on to the fourth open space, 2 miles in length, which consequently may be more correctly called a valley. The Kichik-Uru Daria traverses it from west to east. The valley is full of cultivation, and this is really the point of Tenga-Khoram, although this name belongs to all the four openings without distinction. Having crossed the Kichik-Uru Daria, the road leads by a moderate ascent on to the Altin-Tube hill, and issues on to the even gravelly valley of Uzun-Sai, quite suitable for the movement of a detachment. The Kichik-Uru Daria also flows in this valley to the left of the road at a distance of 2 to $2\frac{1}{2}$ miles, its course being very winding. The Uzun-Sai valley extends for a distance of 6 miles, and is closed on the north and north-west by low, gently sloping, high ground, the foreland of the higher Khoja-Mahmud range. At the foot of this sloping high ground, at about $\frac{1}{2}$ mile from the road to the east, are the Jitim-Kuduk wells with an "aul" (nomad encampment) at them. There are other "aule" in the Uigur hills bordering the valley on the west.</p> <p>On the east the Uzun-Sai valley is bounded by the high Kasha-Al-Tau range. After crossing a sloping ridge at the Jitim-Kuduk wells, the road for $\frac{1}{2}$ mile runs through an even grassy track, and rises to the defile of Kurug-Dahan (i.e., the dry passage). Here the road winds along the bottom of the Khoja-Mahmud stream, with little water in it in summer. The more direct road rises on to the rather steep and stony slopes of the hills forming the defile. The bottom of the stream is unencumbered with stones, and the route by it, although winding, is suitable for traffic. Slight work is required at the road in only a few places (altogether not more than about 300 yards). At the point where the Khoja-Mahmud stream turns to the west, the Kurug-Dahan defile ends, and a good road again commences over an undulating locality covered with grass. At 9 miles $2\frac{1}{2}$ furlongs the road</p>
	Carried over ...	...	...	26	2	

ROUTE No. 34—contd.

FROM GUZAR TO KUGI-TANG *via* TENGA KHORAM AND AK-BASH—contd.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought forward ...	...	...	26	2	reaches the chief ridge of the Khoja-Máhmud range, and turns to the west along the hilly forland of this range, which is covered with thorn bushes and hill vegetation. This place serves as an excellent pasture ground for the sheep and goats of the nearest <i>auls</i> .
						<p>The most difficult part of the march is the ascent to the Ak-Bash heights. It is also necessary to remark that this is the most difficult place on the whole route from Jum to the Amu Daria. The road is but a steep, narrow, and winding path at first on the grassy slopes of the Ak-Bash (to the source of the Khat-Bulák spring), and then winds over stones and through savin trees. In many places the road overhangs a precipice, and is so narrow that it is hardly sufficient for a horse's feet. The thick twisting bare roots of the savin trees, or the trees felled by wood-cutters, often cross the path. The neighbouring nomads take wood from here on donkeys. Notwithstanding the difficulties of the road, it can be put in order. A great and difficult work, comprising widening the path to an <i>araba</i> road, would have to be carried out for a distance of 2 miles, but the limestone soil of the range would easily yield to tools.</p> <p>A steep and winding ascent leads out on to a broad even space, the summit of Ak-Básh grown over with ancient savin trees. This mountain spot would appear enchanting, even though not met with after a march over bare, stony hills. It is like a park planted with fir. The pure mountain air fed with the resinous smell of the fir completes the charm.</p> <p>Halt for the night can be made here. Water may be procured from two springs lying below on the southern slope about 300 yards from the summit of the Ak-Básh. There is grazing everywhere.</p>
3	AK-BASH ...	13	2	...	...	The southern slope of Ak-Básh is much more gentle than the northern, and gradually sinks in gently sloping hills covered with grassy vegetation and high fir trees. In different places pens for sheep are constructed (these enclosures are made of dry fir branches). The road is good, but in some places steep descents should be worked at. At $\frac{1}{2}$ mile from the descent are two plentiful springs of water—Khán-Sai Bulák. At 4 miles from the summit the stony descent into the Karchak Daria valley commences. This mountain stream, giving life to the whole valley of the Karchak-Sai, was quite unknown up to the present time. The Karchak Daria has its source in the Katta-Bai mountains about 6 miles from the issue of the road on to the Karchak valley. This descent leads to the small village of Munchuk-Tube in the Karchak Daria valley. This valley, about 300 yards in width, is hemmed in by the Karchak-Tau hills of moderate height, covered with occasional savin bushes. High-growing fir trees have been already cut down everywhere owing to propinquity of inhabited places, and in these places there is thick undergrowth. The crooked trees and those worthless for building have also been preserved. The Karchak Daria stream does not dry up in summer. Both its banks are covered with an uninterrupted belt of fields—wheat, barley, clover, and occasionally melon and cucumber beds. Trees are hardly met with in the valley except here and there solitary willow trees.
	Carried over ...	...	...	30	4	
				39	4	

ROUTE No. 34—*concl'd.*FROM GUZAR TO KUGI-TANG *via* TENGA KHORAM AND AK-BASH—*concl'd.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought forward ...	...	...	39	4	<p>The branch of the stream itself is grown over with thin bushes of the narrow-leaved willow (water-willow) and tamarisk. The population of the valley is partly settled. Tents are met with much oftener than huts.</p> <p>At 5 miles from Munchak-Kishlák, <i>i.e.</i>, from the point at which the road issues into the Karchak-Daria valley, is the village of Jabagil. From this village the valley is narrowed by the Ak-Tau mountains, and the road crosses to the left bank of the stream. Beyond this, distant 5 miles 2½ furlongs, is the village of Karim-Bai, and 2 miles 6½ furlongs from it Janghazi. 3 miles 2½ furlongs from the latter village is the village of Buz at the Boz-Tube hill. Here the Karchak-Daria turns westward, and the road leaves the valley of this stream. One may encamp for the night at Boz-Kishlák; halt for rest at any point on the bank of the Karchak Daria, as, for instance, at Jabagil. On this march the road only requires repairing in a few places at the descent from Ak-Básh, and on the stony descent into the Karchak Daria valley.</p>
4	BOZ-KISHLÁK ...	20	0	...	...	<p>At Boz-Kishlák the road leaves the valley of the Karchak Daria, and rises steeply on to the stony mountain of Gul-Tube; the descent from this mountain leads to the course of the salt stream of Shur-Bulák. The road crosses this stream and runs over a slightly undulating open space suitable for travelling. At 2¼ miles from the ascent the road crosses a ravine with steep sides; 2 miles further on, after an insignificant bend to the east in order to go round a steep hill, a stony track commences, requiring repairs to road in places. The road runs, now in the bed of a dried-up salt stream, and now on its stony banks. In places stony ravines alternate with undulating gentle hills. The road runs thus for 2 to 2½ miles. At 4 miles to Kugi-tang the outline of the lofty, gloomy mass of the Kugi-tang-Tau mountains is seen in front. The road enters a defile of red sandstone, very winding, which comes out in the Kugi-tang valley at the village of Kugi-tang itself. Halt for rest can be made at the turn of the road in the defile, where there are some moderately well-to-do "auls" at wells. Encampment for the night at the village of Kugi-tang on a broad, even, open space near a small lake formed by springs. The water in the lake is very good. The camping ground is sufficiently distant from rice and clover fields, melon beds, or other similar irrigated spots.</p>
5	KUGI-TANG ...	11	2	...	...	<p>For description of Kugi-tang, see stage 13 of Route 27.</p>
				70	6	

Route No. 35.*

FROM KUGI-TANG TO SHIRABAD.

Authority—KOSTENKO. ROUTE 141.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KUGI-TANG ...	...	...	...	...	<p>Kugi-tang is connected with Shirabad by a suitable direct road fit for pack animals. At first the road runs in the Kugi-tang valley, well cultivated and inhabited. At 4 miles from Kugi-tang the valley narrows, or, more correctly, is barred by a detached mountain mass. This defile bears the name of Mirza-Bedil. Beyond this the defile again opens out to a width of 116 yards. The road runs throughout along the left edge of the valley and defile, past inhabited and cultivated spots spread along the banks of the Kugi-tang Daria, which waters the valley.</p> <p>Beyond the defile of Mirza-Bedil, however, cultivated spots are more seldom met with, as the valley assumes an undulating character, and low, even, open spaces, suitable for cultivation, are not often to be found.</p> <p>At every step in advance the defile assumes a wilder character. At 6 miles from Kugi-tang the difficult ascent to the Ak-Daval hill commences. This hill abounds in springs, which form the source of the Kugi-tang Daria. The ground is nearly everywhere moist. In order that the spring water should not flow away uselessly, in many places pipes made of logs are laid down, by which the water is conducted into the course of the Kugi-tang Daria. On the right Ak-Daval is bounded by the deep ravine of Kirk-Kiz. The ascent to Ak-Daval leads out on an extensive elevated open space, on which is established the hill village of Khoja-Ipil inhabited by Uzbaks of the Kanjigali tribe. At 3 miles from the village up the same defile is the old, now almost deserted, village of Iske-Khoja-Ipil. The place where the village formerly was is now only noticeable by clumps of trees and traces of earthen walls. The open space enlivened by the tents of nomad Uzbeks and their enormous herds, chiefly of sheep and goats. Both these open spaces, upon which are situated the village and <i>aul</i> (nomad encampment) of Khoja-Ipil, are watered by a stream which may be reckoned as the head of the Kugi-tang Daria. The opening is also the upper part of the whole Kugi-tang valley. At 2 miles from Iske-Khoja-Ipil commences the ascent of a gently sloping grassy hill abounding in springs. This ascent leads to the valley of Khoja-Aksar. The country here has an undulating character, and the road runs amongst low, gently sloping hills. After one more ascent solitary firs commence to appear about the road. The descent from this last height runs along the hollow of the Bish-Kutan-Sai.</p> <p>At 13 miles 2 furlongs from Kugi-tang at the end of the Bish-Kutan-Sai hollow, the road reaches the main mass of the vast Kugi-tang Tau range, here intersected by the Tengra-Daval defile, through which flows the swift fresh stream of Tengra-Daval-Bulak. The defile is very stony, but quite practicable for traffic with pack animals. The road crosses incessantly from one side of the defile to the other, now rising up its stoney slopes, now descending to the bed of the stream. Small patches of cultivation are scattered about the</p>

* Not on Russian Route map.

ROUTE No. 35—concl'd.

FROM KUGI-TANG TO SHIRABAD—concl'd.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
1	KHATAK	20	0	...	...	<p>defile in different places suitable for crops, and the tents of nomad Uzbaks are also seen. Here and there trees (willow) are planted along the banks of the stream, which, fed by side springs, is now transformed into a moderate-sized swift mountain river. The slopes of the defile are covered in some places with wild vines, bearing small uncatable grapes of an unpleasant rough taste.</p> <p>At 6 miles 5 furlongs from the commencement of the Tenga Daval defile a more important Uzbek settlement is met with, the village of Khatak, with fields of clover, wheat, barley, melon, and cucumber, and small gardens full of willow (<i>arak</i>) and dwarf elm.</p> <p>From the village of Khatak the road leaves the defile of the Khatak-Su (a continuation of the Tenga-Daval defile), and rises to the nearest height, still, however, following the direction of the defile for another 2 or 3 miles. Here the road turns off to the village of Pash-Khurd. The gentle earthy hills on which the roads runs are covered with fields; here they sow wheat depending on rain without irrigation. Gardens and the buildings of villages (Uzbeks of the Katagan tribe) situated in the defile itself are seen in some places from here at 2½ miles from Khatak. The defile of the Khatak-Su turns to the north-east, gradually receding from the road, which keeps its former south-easterly direction. The fields of the Katagans here cease, although the road runs over an even foreland suitable for cultivation. Cultivation is only seen again at Lailakan, 5 or 6 miles from Khatak, and here there are even fields of "jugara," which, as is known, requires abundant irrigation. A "karez," or underground canal, which gives life to the point of Lailakan, runs from no great distance in the hills.</p> <p>Beyond the road runs through a mountainous tract, but not difficult for movement, now descending into ravines with salt water, now rising to the heights at the side. The deepest and most serious ravine or "sai" is that of Alamli-Sai with a salt stream flowing in it. At about 3 miles from it patches of cultivation are met with on a small open space watered by a plenteous spring. Here also may be seen fields of sesamum, which requires considerable heat to bring it to maturity.</p> <p>From these patches of cultivation a gradual ascent to the Khoja-Utkun-Tau mountain (a continuation of the Pash-Khurd range) commences. The road in the Khoja-Utkun hills is more difficult, but only owing to the steepness of the ascents in some places. On the actual descent from the Khoja-Utkun range on an even, well-irrigated, open space, nestles the village of Khoja-Utkun.</p>
2	NAN-DAHAN GORGE ...	16	4	...	...	<p>From the village of Khoja-Utkun the road lies in an undulating tract not difficult for movement for a distance of 4 miles 6 furlongs up to a high ridge, the dark mass of which is seen in front. This range is the Shirabad mountains. The road reaches the spot where the Shirabad-Daria breaks through these mountains by the narrow Nan-Dahan gorge. Here the road joins the direct Guzar-Shirabad road (No. 28.)</p>
3	SHIRABAD, TOWN OF	6	6	...	...
	Total ...			43	1	

Route No. 36.

FROM SHIRABAD TO AK-KURGAN (AT THE PASSAGE OF THE RIVER SURKHAN)
AND DERBAND.

Authority—KOSTENKO, ROUTE 142, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Vershs.	Vershs.	Miles.	
	SHIRABAD ...	...	...	...	<p>Shirabad is situated on both banks of the Shirabad Daria, where this river issues on to a plain from a narrow valley, which is contracted in two places by rocky masses (the defiles of Nan-Dahan and Gum-Dahan) to such a degree that the river occupies the whole gorge with its stream. The gardens of Shirabad commence in the valley, and the town itself is built on an undulating plain under hills. The gardens and fields extend for a distance of $1\frac{1}{2}$ miles. The road from Shirabad into the Surkhan valley runs to the passage over the river along the edge of the Shirabad hills, gradually inclining to the south-east. At first, up to about 4 or 5 miles from Shirabad, the distance between the road and the hills is not more than $\frac{1}{2}$ miles; but the more the road edges off to the south-east, the more indistinct becomes the contour of the mountains, the general direction of which is from west to east.</p> <p>Along the road to the Surkhan few villages are met with. At $2\frac{3}{4}$ miles from Shirabad, and 2 miles to the right of the road, is the village of Khoja Isa, and almost opposite to it, on the left side of the road, the village of Sufta is visible on a solitary hill of the same name.</p> <p>Further on, more villages are met with along the route, but only nomad <i>auls</i>. These <i>auls</i> are, however, numerous, and cultivated lands are almost uninterrupted, thanks to the abundant supply of water brought in here by the Ravatak canal. This deep canal is run out of the Shirabad Daria at the Nan-Dahan gorge, and runs above the river over the rocks; it crosses the river by an aqueduct in the Gum-Dahan gorge, and after a long distance issues on to the Shirabad plain.</p> <p>At 8 miles from Shirabad the road crosses a low ridge of heights, the Guliambal-Tepe (<i>i.e.</i> "the carpet covered height"), and $2\frac{3}{4}$ miles beyond is a deserted village of the same name. There are, however, plenty of inhabitants about, as the large fields of <i>zugara</i> and <i>kibitkas</i> (tents) scattered about the steppe show. The only sign of settled habitation here is the small mound of some "Isman," with fields of clover and branching dwarf elms.</p> <p>At $1\frac{1}{2}$ miles from the mound the road reaches the Ravatak canal, and runs along its course for 2 miles to some large plots of wheat, melons, and cotton. Here the Ravatak canal ends, being distributed over the fields.</p> <p>The road is good throughout and requires no repairing. Halt for rest may be made by a detachment at the village of Guliambal.</p> <p>From the <i>aul</i> of Ravatak no more inhabitants are met with along the bank of the Surkhan for a distance of 13 miles 2 furlongs. The country here is a dry, lifeless steppe, covered with thorn, and the greater part of the march is sandy.</p>
	Carried over ...	...	16	10 $\frac{3}{4}$	

ROUTE No. 36—*contd.*FROM SHIRABAD TO AK-KURGAN (AT THE PASSAGE OF THE RIVER SURKHAN)
AND DERBAND—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	Brought over ...	...	16	10½	<p>At 1½ miles from the <i>aul</i> the road crosses a dry canal, which in case of necessity could easily be renewed, and about a mile further reaches a gently sloping range of sand heights grown over with the vegetation characteristic of sandy localities. This range is called at Katta Kum (great sands), and the lower hills extending to the south and south-east are called the Jetti Kum. Finally, a very high sand range, which is seen in the distance to the south, and which runs to the Amu Darin, is called Khanjar. Sand-hills run up to the very bank of the Amu.</p> <p>At 5 miles from the <i>aul</i> of Ravatak the road, which up to this has been running over a salt steppe along the slopes of a sand range, turns east, and crosses this range.</p> <p>The highest part of the range from whence the Surkhan is seen in the distance is called Tash Rabat Tube.</p> <p>Here there really was at some time or other a <i>rabat</i> (sarat), of which now only indistinct traces are left. The road runs over difficult sand hills for a distance of 3 miles 2½ furlongs, and afterwards for the remaining 4 miles 5 furlongs over steppe, which is also sandy and difficult for movement.</p> <p>The village of Ak-Kurgan is situated at the crossing over the Surkhan. On the opposite bank is situated the large village of Kokaiti-Payin, (i.e., low Kokaiti).</p> <p>The road, although difficult for movement on account of the sandy tract, does not require working at. The most suitable place to halt at for rest is at the descent from the Katta Kum range on to the sandy steppe. There is, however, no water here, and it must be procured in skins from the Surkhan.</p>
2	AK-KURGAN AND KOKAITI.	33	49	32½	<p>The passage of the Surkhan between Ak-Kurgan and Kokaiti can be made at any season at fall water in boats (kayaks), and at low water by fording.</p> <p>The valley of the Surkhan in its lower parts is striking from its uninhabited and sterile nature. It is a continuous steppe covered with thorn. Traces of canals, however, and tradition kept up amongst the people prove that at some time this valley teemed with life. A vast canal led through it from Dch-i-Nau to the lower parts of the river, where it irrigated the fields belonging to the once celebrated Termez. All the canals here are now abandoned, and life is only seen on the low inundated spots formed by the Surkhan.</p> <p>The road from the Ak Kurgan passage runs for the greater part elevated above the level of the river, over a dry and dusty steppe, occasionally descending to the low grounds, when the river approaches the road. At 1½ miles from Ak Kurgan the ruins of the old fort of Chaldivar are seen on one side of the road. Another 1½ miles on the road crosses an old abandoned canal, and descends to the low ground of the Surkhan, overgrown with high reeds and bushes of <i>jid</i>.</p>
	Carried over ...	...	49	32½	

ROUTE No. 36—*contd.*FROM SHIRABAD TO AK-KURGAN (AT THE PASSAGE OF THE RIVER SURKHAN)
AND DERBAND—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versets.	Versets.		Miles.
3	Brought forward ...	...	40	32 $\frac{3}{4}$	<p>Bushes of black fig preserved here and there show that there were once rich gardens here. At 3 miles 2$\frac{1}{2}$ furlongs from Ak Kurgan the road reaches a bend in the Surkhan, which is here at low water about 70 yards broad. At 5 miles 2$\frac{1}{2}$ furlongs the road again approaches close to the precipitous bank of the low fore-shore of the river. $\frac{3}{4}$ mile beyond is the Arpa Payin hillock, and near it, on the bank of the Surkhan, the village of the same name. At 7 miles from Ak Kurgan is situated, also on the Surkhan, the village of Kaptagai, and on the opposite bank the large village of Kokaiti. 2 miles further on is the village of Karvan Tushti, with the remains of an old rampart. The road is throughout even and good. Along the Surkhan in its lower parts live the Uzbek tribe, Chupak, partly settled in the villages on the river, and for the greater part living in khibitkas, which are scattered about in different places over the steppe and on the low ground. The Uzbeks of the Surkhan raise large flocks, taking advantage of the good pasture in the wet low grounds (<i>tugai</i>) of the Surkhan.</p> <p>At the villages of Karvan-Tushti the river Surkhan and the road, which throughout runs along the right bank of the stream, approach the Adil-Tau mountains, bordering the broad Surkhan valley on the west. These mountains from the side of the valley do not appear of majestic proportion. They have the appearance of sloping greyish yellow hills, but the further one advances into the depth of the mountain mass, the more perceptible do their proportions become.</p> <p>At 3 miles 2$\frac{1}{2}$ furlongs from Karvan-Tushti the mountains almost reach to the bank of the Surkhan. About a mile to the right, at the point where the river makes a sharp turn to the east, are the ruins of Mirza Sayid-Bai on the bank. $\frac{1}{4}$ mile still further on the river is seen the village of Kaptagai. Here the Adil-Tau mountains again approach the bank of the river, and the locality through which the road passes becomes undulating. At 5 miles 2 furlongs from Karvan-Tushti the Bandi-Khan ravine intersects the road with an ancient bridge of good burnt brick constructed over it. The traces of brick kilns, in which the bricks for constructing the bridge were made, are still to be seen at the present time not far from the bridge. The Bandi Khan ravine is only full of water in spring; in summer it is quite dry. It forms a continuation of the defile of the same name in the Adil-Tau mountains. The road direct to Baisun by the mountains runs in this defile along the bed of the saltish stream Gubchak-Bulak.</p>
	ARPA PAYIN ...	11	...	...
	BANDI-KHAN DEFILE	22	6 $\frac{1}{2}$	54 $\frac{1}{2}$	
4	Carried over ...	...	82	54 $\frac{1}{2}$	<p>5 miles 2 furlongs to the north of the bridge over the Bandi-Khan the small Uzbek village of Kum-Kurgan is situated on the Surkhan. In the lower parts of the valley of this river only poor Uzbek villagers, and but few of them, have found a refuge.</p> <p>The mountain mass which fills up the whole expanse between Baisun and the valley of the Surkhan is cut through by the Bandi-Khan defile. This mountain mass does not present considerable heights, and the road cannot be reckoned a difficult one. In many places extensive open spaces are met with, with</p>

ROUTE No. 36—*concl'd.*FROM SHIRABAD TO AK-KURGAN (AT THE PASSAGE OF THE RIVER SURKHAN)
AND DERBAND—*concl'd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Vershs.	Vershs.	Miles.	
	Brought forward ...	...	82	54½	
5	KAFINUUN ...	19½	...	...	<p><i>auls</i> scattered about them. The Kul-Kamish, a small stony hollow with a stream in it, enables some cultivation to be carried out at this spot. The <i>aul</i> is higher up in the hills, and on the stream in the hollow there are only some corn-fields and a few mud huts (<i>kara-uis</i>).</p> <p>At 5 miles 2 furlongs from Kul-Kamish is the wealthy village of Kafinuun. The road to this village leads through a not very wide mountain valley which winds out to the north towards Baisun. The village of Kafinuun itself is situated amongst bare and sterile hills, but all the depressions and glades between these hills are most carefully cultivated. Not far from Kafinuun to the north on the same road is the village of Tungai-Kurgan. Here the locality assumes an uneven, undulating character. In front and to the right is seen the outline of mountains of a reddish colour, rocky and gloomy looking. The descents from these mountains are noticeable for their steepness. These mountains are a continuation of the Buri-Takht range, which borders the Baisun valley on the south and south-east.</p> <p>The Baisun mountain valley on the road from Kobadian to Baisun is less cultivated and populated than is its western portion. Here the locality has an undulating character not always permitting of cereal cultivation. Baisun is a large Uzbek town; the inhabitants have long been celebrated for their opulence, whence the very name of the town, Bai-Shin, i. e., the rich settlement. The neighbouring hill Uzbegs of the Kungrad tribe possess enormous herds which are pastured in summer on the high mountain valleys. The Kungrads get rid of their superfluous cattle at Guzar.</p>
6	BAISUN ...	13	...	...	The road from Baisun to Derband is very difficult, and crosses three passes—the Sakirtma, the Bai Kiderni-Uri, and the Yalgiz-Bagh. The ascent to the last of these passes is especially difficult, and from it a magnificent view opens out over the whole Baisun valley. At the descent from the Yalgiz-Bagh pass lies the Tajik village of the same name.
7	DERBAND ...	19	...	...	Derband is also a purely Tajik town, and lies in the Shirabad-Daria valley. The huts of this town are scattered about in defiles. At Derband the road leading to Kobadian joins the Guzar-Shirabad road.
			133½	80½	

Route No. 37.*

FROM SHIRABAD TO THE KELIF FERRY (1ST ROUTE).

Authority—KOSTENKO, ROUTE 137.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	SHIRABAD ... ..	...	...	...	...	Route 28, stage 14.
1	GAZ-KISHLAK (village)	17	9	...	...	<p>The road runs in a south-western direction towards the hills, and at first lies in a hilly country very suitable for movement with hard, gravelly soil. At 2 miles the village of Nauvakh is met with on the road, or, more accurately, a group of small hamlets extending for a distance of $\frac{3}{4}$ mile and bearing one common name. The road throughout passes by fields watered by the Nauvakh Arik. To the right, unproductive greyish-yellow hills border the road, covered with burnt-up vegetation. The locality from the village of Nauvakh is called Khoja-Kuyn, from the name of the central village which is at 4 miles 5 furlongs from Shirabad. At a ruined tank to the left of the road it is reckoned 5 miles $2\frac{1}{2}$ furlongs from Shirabad. The road here runs over a salt steppe to the termination of the reddish range of Khoja-Kuya-Tau mountains, behind which rises the higher grey range of the Baeh-Khurd. At 8 miles the road enters the mountains and runs in a broad, easy defile, which requires no working up. The ascent is inconsiderable and not difficult; the soil is firm and gravelly. This ascent terminates in a level, elevated open space, after which the defile assumes a wild character and extends in a narrow channel between precipitous limestone rocks, encumbering the passage, which is in addition obstructed with masses of detached rock.</p> <p>This defile bears the name of Gaz-Sai. The banks of the Gaz-Bulak stream are grown over with groups of trees (willows), between which in places are to be seen wretched huts and small patches of cultivation. From the open space above mentioned one can see that the Gaz-Bulak stream is fringed with tree vegetation down its course. The village of Gaz with its reddish clay huts clings to the very crest of the ascent, so that at Gaz-Kishlak the defile issues on to a level broad valley 21 miles to 23 miles, which extends uninterruptedly from here almost up to Kelif. To the north, this valley (according to the inhabitants) leads out to Derband and Baisun. From Shirabad to Gaz-Kishlak is 17 miles. The mountains forming the Gaz-Sai defile are called at the village on the left side Uch-Kora, and on the right Chungul.</p>
	Carried over ...	...	...	17	0	On the march above described the road only requires repairing in the Gaz-Sai defile for a distance of 4 miles. Halt for rest can be made at the commencement of the Gaz-Sai defile on the Gaz-Bulak stream.
		...	...	17	0	

* Not on Russian Route map.

ROUTE No. 37—*contd.*FROM SHIRABAD TO KELIF FERRY (1st ROUTE)—*contd.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interm- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought forward ...	...	...	17	0	<p>The broad valley into which the Gas-Sai defile leads out bears the name of Karezatlik, because an underground canal (<i>karez</i>) is conducted along it for a distance of 11 miles 2½ furlongs—a remarkable work made in older times. The inhabitants of the valley keep it up most carefully, as this canal alone enables the moderate population scattered over the valley south of Gaz-Kishlak to live. Higher up (more to the north of this village) the valley abounds in streams of water, and consequently is more populous. The width of the <i>karez</i>, which is marked on the steppes by a number of wells, is from 3½ to 16 feet. The road from Gaz-Kishlak, bending round the Uch-Kora hill, runs the whole time along the <i>karez</i>. The route is very even and suitable for travelling.</p> <p>On the right the valley is bordered by the Kugi-tan-Tau range. At 2 miles 2½ furlongs from Gaz-Kishlak is the village of Yakub-Bai. Wheat-fields extend uninterruptedly from Gaz-Kishlak to Yakub-Bai. Where the Uch-Kora range, bordering the valley on the left recedes from the road, forming a wide, open space, the entrance of the Katta-Kamish-Sai defile the village of Ziunon is seen 2 miles off the road.</p> <p>The Katta-Kamish-Sai defile is formed by the Uch-Kora and Katta-Kamish ranges. On this latter range, beyond the village of Ziunon, are seen the villages of Ak-Tash-Karezi and Chahur-Bagh-Karezi, 8 miles 6 furlongs from Gaz-Kishlak. About 2 miles further along the road the village of Kempir-Bulak is met with. This latter village is fed with the water of the <i>karez</i>, which here comes to the surface of the ground, and is distributed over fields of wheat, barley, millet, and cotton.</p>
2	KEMPIR-BULAK (VIL- LAGE).	11	2	28	2	<p>On this march no improvement whatever is required on the road. Halt for rest can be made at any point of the march on the <i>karez</i>, which has fresh, clear, spring water.</p> <p>The road on from here also runs in the broad valley, and is suitable for travelling. At 2 miles by the hills is the village of Alri. The road gradually draws near to the Kugi-tan-Tau mountains, the contour of which stands out more sharp and distinct with every mile.</p> <p>Where the valley is apparently closed by the gloomy cupola-shaped mass of the Karraga (a branch of the Kugi-tan-Tau mountains), the road enters the defile of Kempir-Dahan. From the village of Kempir-Bulak to the entrance to the defile is 3 miles. At the entrance a small stream runs, flowing from a spring near the village of Kempir-Bulak. It waters the moderate-sized ploughed land of the village.</p>
	Carried over ...	...	...	23	2	

ROUTE No. 37—concl'd.

FROM SHIRABAD TO KELIF FERRY (1ST ROUTE)—concl'd.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought forward ...	...	...	28	2	<p>The rocky range of Jumalak-Tau from the right side of the Kempir-Dahan defile and lower hills border the left side, forming a continuation of the Ak-Tash mountains. The Kempir-Dahan defile extends for 4 miles, and is quite fit for the passage of artillery and wheeled train. The soil is firm and gravelly. There are no ravines or landslips at all.</p> <p>From the issue from the Kempir-Dahan defile to Kelif is reckoned 2½ to 3 <i>lash</i>, or 13 miles 2 furlongs to 16 miles. The latter distance is nearer the truth. The defile leads out on a level, gravelly steppe, which extends from here to the Amu-Daria, and on the west is bounded by the Kugi-tang Tau range.</p> <p>At 2 miles 5½ furlongs from the issue of the road from the defile on to the steppe the village of Oguz-Bulak is met with on the stream of the same name, which flows out of the Kugi-tang Tau mountains at Khoja-Kaiuar, 10 miles 5 furlongs from Oguz-Bulak village. The Oguz-Bulak stream flows from here in branches; one irrigates the fields of Oguz-Bulak village and runs on uninterruptedly to Kelif; the second stream flows in a ravine, and loses itself on the steppe; the third runs to the village of Kalluk (in the Kugi-tang Tau mountains), and waters its fields. At the village of Oguz-Bulak the road unites with the Guzar Kelif road, running from this point to the village of Kalluk. From Kempir-Bulak to Oguz-Bulak is 10 miles.</p> <p>From the village of Oguz-Bulak the road runs over the same smooth steppe to the Amu-Daria; the small range of crenelated hills, Kizil-Khoraz, runs parallel to the road on the right, and on the left another low range, now rising above, now losing itself in the steppe—the Kulan-Achkan.</p> <p>In front, 10 miles from Oguz-Bulak, another low range, the Kara-Ura, is seen. The road runs the whole time along the Oguz-Bulak canal, grown over with high tamarisk bushes. The steppe presents a green appearance from the thorn bushes and shrubs of other steppe vegetation, which do not require irrigating moisture.</p> <p>From 8 miles to the bank of the Amu Daria an enormous salt tract commences, extending a most uninterruptedly to Kelif; crumbling sand only commences at ½ mile from the bank of the Amu Daria, apparently once inundated by the water of the river. The salt tract is also covered with green thorns, the same as the whole steppe, and the shern of the white crystals of salt covering the surface of the soil only appears through the vegetation. The salt tract extends for a great distance in all directions as far as the eye can see. On the shore of the Amu Daria the salt tract ends at 2 miles from the Kara-Ura range.</p>
	8 Kelif ...	22	0	...	...	See stage 17, Route 26.
				50	2	

Route No. 38.

FROM KELIF TO SHIRABAD *via* THE KARA-KAMAR PASSAGE OF THE OXUS
(2ND ROUTE).*Authority*—KOSTENKO, ROUTE 138, AND RUSSIAN ROUTE MAP OF 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.		Total.	
		Versts.	Versts.	Miles.	
	KELIF (FERR) ...	... ..	... ..	... ..	<p>The road from Kelif to the nearest passage of the Shirabad bekship, that of Kara-Kamar, runs due west through the town or village of Kelif (100 houses). From Kelif an uninterrupted succession of fields, vegetable gardens, and small gardens extends for 2 miles $5\frac{1}{2}$ furlongs along the bank of the Amu Daria. The inhabitants sow melons, cucumbers, water-melons, millet, and clover. They do not sow wheat, barley, or rice, but obtain it from the Afghan shore in exchange for salt brought from the Kugitang mountains. The inhabitants of Kelif go to Kuzitang for salt, paying for its export 20 <i>kopecks</i> ($7\frac{1}{2}i.$) per camel, 10 <i>pecks</i> ($3\frac{1}{2}l.$) per horse, and 5 <i>kopecks</i> ($1\frac{1}{2}d.$) per donkey, and sell this salt at Akcha.</p> <p>At $1\frac{1}{2}$ miles from Kelif the road passes by the small Bish-Barmak ridge, and then enters a valley formed by the ranges Karaicha on the left and Kalan-Achkan on the right, approaching the latter range. From Kelif to the entrance to the mountains is about 6 miles. The road here runs through the range of hills because the bank of the Amu Daria at the point where the Kalan-Achkan range approaches the river makes a sharp bend to the south, so that the road along the bank of the Amu is longer than that direct through the hills. The Kalan-Achkan range—of limestone and not high—has a very steep slope to the west towards Kelif, and, on the other hand, descends gently to the east. The ascent to the crest of the Kalan-Achkan is excessively hard. The path rises steeply up on a cornice overhanging a precipice. The surface of the saddleback is covered with huge masses of rock, worn smooth by time, so that the passage over them is not difficult. The descent, as stated above, is gentle, and leads to the plain of the Amu Daria, flat, with salt-soil and grown over with moderately high bushes of tamarisk and sappy stoppe vegetation (unfit for horse's food, for, if reduced to extremity, they even prefer camel-thorn).</p> <p>Near the Kalan-Achkan hills, on the bank of the Amu, is the Turkoman village of Danagi, inhabited by a few families of Turkomans of that tribe. The plain in which the road lies is bounded on the north by the Aktash mountain ridge, running south-west and north-east; behind it is visible the still higher range of the Shirabad mountains, terminating at their eastern end in the high Kizil-Kugitang mountain.</p> <p>Still further gloom the summits of Kugi-tang Tau. At 10 miles from Kelif, the road bifurcates: one branch runs to the Kara-Kamar passage and the other leads through the villages of Duz-Rabat and Talashkan to Shirabad.</p> <p>Opposite the Kara-Kamar crossing, at 2 miles from the bank, an isolated, not high, sandy ridge rises, which bears the name of Kara-Kamar (the black belt). In this range, on the eastern side, there are three caverns covered inside with coarsely executed carved figures</p>

Route No. 38—*concl'd.*FROM KELIF TO SHIRABAD *via* THE KARA-KAMAR PASSAGE OF THE OXUS
(2ND ROUTE)—*concl'd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Vershs.	Vershs.		Miles.
1	KARA-KAMAR (passage of the Amu-Daria).	20	...	...	of men, horses, dogs, hands, and heads. The figures are scratched out of crumbling sandstone. Shepherds drive their flocks into these caverns for the night.
2	BOZ-RABAT (village)...	30½	...	...	At the passage of Kara-Kamar there is only one Bokharan boat (<i>kayak</i>), and on the other bank one Afghan <i>kayak</i> . The character of the Amu-Daria in this locality, <i>i. e.</i> , from the Kara-Kamar crossing to the Kalan-Achkan hills, is the same as on the average of its course. The river divides into channels forming low wet islands, overgrown with reeds and shoals. The bank is covered with tamarisk bushes and high grass. Along the bank are scattered in different places the kikitkas of the Turkomans, and at the crossing, itself are small patches of cultivation belonging to the Turkoman ferrymen. The road requires making only at the pass over the Kalan-Achkan hills; but, if artillery and transport are sent by the bank of the Amu-Daria, even this can be dispensed with, as the Kalan-Achkan pass is practicable for infantry and cavalry. Halt can be made on the bank of the Amu-Daria in any spot you please.
3	SHIRABAD ...	31½	...	...
			82	54½	Thus of the two roads from Shirabad to Kelif, the road running from Shirabad by Talashkan, Boz-Rabat, the Kalan-Achkan range, and Kelif appears the most convenient.
			82	54½	These distances are taken from the Russian Route map of 1893.

Route No. 39.

FROM KELIF TO MAZAR-I-SHARIF *via* AKCHA AND BALKH (1ST ROUTE).*Authority*—RECORDS OF THE AFGHAN BOUNDARY COMMISSION, 1884 TO 1887.

(For full details see Afghan Boundary Commission Routes, Turkistan Series, Route X.)

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KELIF ... ..	...	...	...	...	Main road. General direction south to Chillik and Akcha; then east to Mazar.
1	CHILLIK (BABAT KATAR KHANA).	18	0	...	...	A good well-beaten road across desert. The drift sand hillocks and saxaul bushes extend to the 11th mile, and would be for the most part heavy for guns. Then the ground becomes harder and more open till the edge of the cultivation is reached at Chillik. No water on the road. At 1 mile a road branches to the south-east by Yarik-Sardaba to Mazar. See stage Route 40. At 7 miles a road branches by Faruk to Balkh and Mazar.
2	AKCHA	12½	0	...	...	Road across Akcha cultivation. Cross a swamp at 6th mile. For description of Akcha see Afghan Boundary Commission Records Vol. III. page 105, and Vol. II. page 172, or Afghan Boundary Commission Routes, Turkistan* series, Route X. Roads from here to Shibargan and two parallel, to Mazar.
3	NIMLIK (CHAHAL-BACH)	17	0	...	...	Also called Mimlik, Memlek, and Minglik.
4	BALKH	27½	0	...	...	Afghan Boundary Commission Records No. II, page 177. To west gate of city 25¼ miles.
5	MAZAR-I-SHARIF ...	14	0	89	0	The last three stages are described in detail in pages 172 to 181 of Vol. II, Records of the Afghan Boundary Commission. The road is good and fit for the passage of all arms throughout. Mazar-i-Sharif and its fort Takht-i-Pul are fully described in the Afghan Boundary Commission Records, Vol. II, pages 179 and 180.
				89	0	

* NOTE.—From Akcha the road to Shibargan is difficult for guns and troops generally, in parts especially in wet weather. For full description see Afghan Boundary Commission Routes, Turkistan Series, No. 3. The stages and distances are:—

1. Chikohi	...	...	... 16 miles.
2. Shibargan	...	...	... 14 "
			... 30 "
			... 30 "

Route No. 40.

FROM KELIF TO MAZAR-I-SHARIF *via* KHANABAD (2ND ROUTE).
 Authority.—AFGHAN BOUNDARY COMMISSION RECORDS 1884-87.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KELIF ...	...	...	...	...	This is the direct route.
1	YABIK-SARDABA ...	22	0	...	...	At 2nd mile leave Kelif-Akcha main road at the old village of Dagharsabi. At 4th mile a road branches east to Islam und Chushka-Guzar. Up to 9th mile the road is over hard soil, and the going is good. Sand in patches then intervenes, but it is not heavy till Sandukli at 11th mile. From thence to 17½ miles the road is through drift sand, but the track is a broad, well-beaten one. Hence to Sardaba hard, open <i>pat.</i> Water at Sardaba in a covered brick reservoir available all the year round.
2	KHANABAD (OR KASANI) ...	10	0	...	...	Road goes on over the <i>pat.</i> At 6th mile the ruins of old Khanabad are reached. At Khanabad the main road forks. The right branch runs past Khanabad and Intcha to Adina-Masjid direct to Balkh, now, however, disused, as Mazar has taken the place of Balkh as capital of Afghan—Turkestan. A halt can also be made in the Deowali plain beyond Khanabad.
3	KARSHIYAK (TELIYAK) ...	10	0	...	...	This distance is approximate. Karshiyak and Teliyak are contiguous villages. Travellers usually halt at Karshiyak. Supplies procurable. Large quantities can be collected by previous arrangement, and even a hostile force would be able to find subsistence here and in the neighbourhood for a day or two. Karshiyak is on the main road from the Chushka-Guzar ferry, and, in order to halt there <i>en route</i> from Kelif, it would be necessary to march 3 miles north from where the Kelif road comes in, as this happens at 3 miles south of Karshiyak. The large and important village of Daulatabad, on the other hand, is almost abreast of the point of junction (about 1 to 1½ miles distant), and consequently it would appear best to camp there for at any rate a small detachment. For further description of Karshiyak, Teliyak, Daulatabad and the road, see Afghan Boundary Commission Records, Volume II, page 274. At 9½ miles road to Balkh branches to right at village Bagshor.
4	MAIDAN ...	13	6	...	...	13 to 13½ according to Afghan Boundary Commission Records, but only estimated. Stage 18, Route No. 28.
5	MAZAR-I-SHARIF ...	26	6	...	...	20 estimated according to Afghan Boundary Commission Records. The total distance (estimated), according to the Afghan Boundary Commission Records, is 65 miles, and his would probably be nearer the mark than 87½, as the distance by Akcha is only 89.*
				87	4	

* As it is better to under-estimate rather than over-estimate distances on Russian routes towards India, the distance of this route for purposes of calculation has been taken as 55 miles according to the opinions of the latest authorities who were practically on the spot.

Route No. 41.

FROM PATTÀ-HISSAR FERRY TO MAZAR-I-SHARIF.

Authority.—RECORDS OF THE AFGHAN BOUNDARY COMMISSION, 1884-87.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	PATTÀ-HISSAR (VIL- LAGE AND FERRY).	...	...	...	...	<p>The name Patta-Hissar belongs to the Bokharan shore where it applies to the small district and not to any particular point. On the Afghan bank there are no inhabitants except the men employed on the ferry, who live in half-a-dozen <i>kibitkas</i> about a mile from the landing place. There is a small guard and an official for the tolls. The ferry is little used now except by pilgrims and for minor local traffic. No caravans pass this way.</p> <p>The Amu Daria is in several branches above Patta-Hissar, but at the ferry it is in one channel of 1,000 yards in width. Depth varies from 10 to 50 feet. There are two boats on the Bokharan and two on the Afghan shore. They are here usually worked with sweeps, unless there is a strong wind, when horses are used as at Kelif. The current is about 4 to 4½ miles an hour.</p>
1	SIAGIRD	19	7	...	...	<p>Road over strip of firm ground bordering the river for first 2 miles; then 9 miles of heavy drift sand. From 10th mile the road is good, fit for all arms, over hard open plain. No water till 4th mile from Siagird. Soil about Siagird and on to Padah Khana said to be of great fertility. Siagird small village of about 150 Uzbek families. Water plentiful.</p>
2	MAZAR-I-SHARIF	17	1	...	...	<p>Road almost due south over open plain of light sandy soil, covered at first with low scrub and small clay hammocks tufted with bushes, and then with camel-thorn. Soil is said to be of great fertility if properly watered.</p> <p>Water for first 4½ miles.</p>
				37	0	

Route No. 42.

FROM PATTA-HISSAR FERRY TO TASHKURGAN.

Authority.—AFGHAN BOUNDARY COMMISSION ROUTES, TURKISTAN
SERIES, No. 19.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	PATTA-HISSAR ...	...	...	...	...
1	KARKIN KUDUK (2 <i>farsaks</i> .)	12	0	...	...	Some sand on the road, but not so much as on the Shahgird route. Two wells at halt and a small settlement of Ishan Turkomans. Water abundant and good.
2	YAK ZAK-KUDUK (1 <i>farsak</i> .)	4	0	...	...	Two wells of tolerable water; road good.
3	NIMAN OF TASHKURGAN (1 <i>farsak</i> .)	4	0	...	...	Road good.
4	TASHKURGAN GATE ...	6	0	...	...	Road good.
				26	0	

N.B.—The above distances must be considerably under-estimated. The distance in a straight line is fully 49 miles.

Route No. 43.

FROM SAMARKAND TO KARSHI *via* JAM (1ST ROUTE).

Authorities—KOSTENKO, ROUTES 123, 124, AND 135; ROUTES IN ASIA, No. 35 AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versta.	Versta.	Miles.	
	SAMARKAND ... ..	...	...	...	General direction west; then south-west and south. Fit for wheeled traffic throughout.
1	TAR-ARIK	23	...	...	Road runs over an undulating steppe covered with grass. Up to Tar-Arik it is parallel to the railway. At about 20 miles the end of the Samarkand oasis is reached. 28°
	SARI-GUL	26	...	...	From Sari-Gul another cart road branches to Karshi (see Route No. 44). 40°
	JAM	12	...	...	Elevation 2,047 feet. Jam is situated on a small stream at the entrance to a small pass known as the Jam defile. This presents no difficulties. Jam lies immediately at the extremity of the Zarafshan mountains, and is the first place where a force marching from Samarkand, Tashkend, or Ferghana can turn these and the Hissar mountains by a road practicable for all arms. Roads from here diverge— North to Katta Kurgan. South to Fort Chirakchi and Sharshauk.
4	ABAB-BAND	16½	...	...	Road east to Chirakchi.
5	BELIAMIKH	23½	...	...	Road north from Katta-Kurgan. (No. 30-A.) 45°
6	UZUN-KUDUK	24½	...	...	Road over grassy steppe from Jam.
7	KARSHI	18½	161½	100½	The characters of all the roads between the line Kerminie-Samarkand and Karshi (Routes 30, 30-A., and 44) are pretty much the same, viz., over grassy steppes and low hills with scattered villages and cultivation. 43° 153°
			161½	101	

* Vide Hand book of Samarkand Province for 1894, pp. 233-34.

Route No. 44.

FROM SAMARKAND TO KARSHI *via* SARI-GUL (2ND ROUTE).*Authority.*—RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Vershs.	Vershs.	Miles.	
	SAMARKAND ...				
1	SADAGAN ...	25	General direction south-west. This road lies between Route 43 and stages 1 to 8 of Route 45 and runs parallel to them at a distance of only a few miles. Here joins Route 43.
2	SARI-GUL ...	25½			
3	AIB TAM ...	30			
4	KAZAK-SAI ...	20½			
5	UZUN-KODUK ...	18½			
6	KARSHI ...	18½			
			146½	97½	

Route No. 45.

FROM SAMARKAND TO KARSHI *via* SHARSHAUZ* (3RD ROUTE).

Authority—ROUTES IN ASIA, SECTION III, No. 35; KOSTENKO, ROUTES 125 AND 126; YAVORSKI, AND RUSSIAN ROUTE MAP, 1893.

Number of stage.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
			Versts.	Versts.		Miles.
	SAMARKAND	...	...	...	General direction south, a carriage road as far as "Kitab." (Russki Invalid No. 129 of 1891). The road from Samarkand at first runs through continuous gardens. At Ankor-Arik the gardens cease and steppe commences, bare and lifeless, only covered with thorny bush in places. At 10½ miles from Samarkand the road crosses a deep ravine with steep banks. From here to Kara-Tube it is also 10½ miles. Within 5 miles 2½ furlongs of Kara-Tube the road enters the foot of the mountains, and therefore becomes more difficult.
1	KARA-TUBE (VILLAGE)	32	...	...	The village of Kara-Tube lies in a hollow amongst high mountains. It was formerly a frontier fortress. The road runs in the defile of Katta-Sai, in which flows a turbulent little mountain stream of the same name. It crosses from one side to the other. The ascent to the pass is at first barely perceptible, but then becomes steeper.
2	TAKHTA-KARACHA PASS (6,300 FEET; BOKHARA FRONTIER.)	21½	...	...	The Takhta-Karacha pass consists of small open spaces obstructed by huge granite boulders. Savin grows a little below the pass. The southern slope of the range is much steeper.
	KAINAR (VILLAGE)	...	...	...	To the village of Kainar a path leads by a cornice above a deep precipice; the path is excessively sinuous, and obstructed with round stones which roll down from the precipitous slopes. The village of Kainar lies at the exit from the Takhta-Karacha defile. From here the road becomes fit for wheels and runs through an inhabited district.
	URUS-KISHLAK (VILLAGE)	...	...	...	Urus-Kishlak is a poor little village inundated by water.
3	KITAB (TOWN)	19½	...	...	The two towns of Kitab and Sharshauz were not long ago surrounded by one wall about 53 miles long, and which included in addition several villages with gardens, fields, and vegetable gardens belonging to them. These entirely occupied the whole space within the wall. The wall is now destroyed in many places. Both Shar and Kitab are profusely supplied with water from the Kashka Darya, and are surrounded by gardens of mulberry and other trees. Shar contains a palace of the Amir of Bokhara, which, with other buildings, is enclosed by a wall, and forms the citadel of the city. The city is described as a well built town of about 20,000 inhabitants, and has a large bazar, where a weekly market is held for the sale of horses and country produce. The Amir visits Shar at least twice in the year. Kitab is situated on undulating ground and the climate is better than that of Shar, though the population is less (15,000). The crops of grain and fruit are very large in the begship of Sharshauz. Supplies plentiful.
4	SHARSHAUZ (1,800 FEET.)	10	...	...
	CARRIED OVER	...	83	55½	

* Also called Shan-i-Sabz.

ROUTE No. 45—concl'd.

FROM SAMARKAND TO KARSHI *via* SHARSHAUZ (3RD ROUTE)—concl'd.

Number of stages.	Names of stages.	DISTANCES.			
		Interme- diate.	Total.		
			Versts.	Versts.	Miles.
	BROUGHT FORWARD	...	83	56½	
5	CHIRAKCHI ...	20	<p>The road throughout runs along the Kashka Daria through the continuously inhabited Kashka Daria oasis. From Sharshauz to the settlement of Chirakchi it is through a succession of fields. In the season large quantities of rice are raised about this neighbourhood.</p> <p>The state of the irrigation is such, that the entire country round can be thoroughly inundated and made impassable. Consequently from this side Sharshauz is quite unapproachable for cavalry or artillery. In every direction among the fields are villages and small farm-houses, all of which have a very well-to-do appearance (Yavorski). Beyond Chirakchi cultivation becomes thinner till the village of Karategin is reached, when the green slopes of the Karshi oasis are entered on.</p>
6	KARA-DAGH (VILLAGE)	18½	...	...
7	CHIM-KUBGAN ...	17	...	...
8	KHANABAD (TOWN OF)	25	...	...
9	KARSHI ...	13½	...	...
			*176½	117½	* 186 versts according to the Samarkand Hand book for 1894.

Note.—According to latest information, the Russians have made this road fit for wheeled traffic throughout

Route No. 46.

FROM SAMARKAND TO ANDKHOI *via* JAM, KARSHI, AND KERKI.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versts.	Versts.	Miles.	
	SAMARKAND.				
3	JAM ...	63	...	...	} Route No. 43. Routes 44 and 45 are alternatives.
7	KARSHI ...	88½	151½	100½	
10	KERKI ...	130	281½	186½	Karshi to Kerki, Route No. 33. Cross Amu Daria at Kerki.
15	ANDKHOI ...	108½	...	...	Kerki to Andkhoi, Route No. 25, stages 11 to 16.
			390	260	

Route No. 47.

FROM SAMARKAND TO MAZAR-I-SHARIF *via* JAM, KARSHI, AND KELIF (1ST ROUTE).

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	SAMARKAND.					
3	JAM ...	41	6	...	...	} Route No. 43 or by Route No. 44 (distance 98 miles) or Route 45, 117 miles.
7	KARSHI ...	59	6	10	4	
17	KELIF ...	135	2	235	6	Stages 6 to 14 of Route No. 27. There are two alternative routes from Karshi to Kelif besides the one given here. One by the desert direct, No. 31 (distance approximately 116 miles), which, as far as ground goes, appears to present no obstacles to wheeled traffic, but is little known, and difficulties in regard to water might have to be encountered; and the other by stages 6 to 14 of Route No. 28 to Shirabad and Route No. 30, which is longer and somewhat circuitous, but would be fit for carts the whole way, while supplies and water are more plentiful. The route given here is fit only for cavalry, infantry, and pack animals. It would have the advantage of leaving Route No. 28, the main one to Shirabad, free for artillery and trains.
21	MAZAR-I-SHARIF ...	55	6	...	...	Route No. 40 (estimated by Afghan Boundary Commission or by Route No. 30 (89 miles).
				291	4	

Route No. 48.

FROM SAMARKAND TO MAZAR-I-SHARIF *via* JAM, KARSHI, GUZAR, SHIRABAD,
AND THE CHUSHKA-GUZAR FERRY (2ND ROUTE).

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	SAMARKAND.					
3	JAM ...	41	6	This is the probable train route from Samarkand to Shirabad, from whence roads fit for wheeled traffic lead to the three ferries of Kelif, Chushka-Guzar, and Patta-Hissar. The road is still rather difficult in places, but could very soon be made quite practicable for guns, trains, and the passage of troops of all arms.
7	KARSHI ...	58	6	100	4	
9	GUZAR ...	29	5			} Samarkand to Karshi by Route No. 43 or Route No. 44 (97½ miles). There is also an alternative wheel road from the railway at Katta-Kurgan, No. 30-A., (92 miles). } Route No. 28, stages 6 to 19.
15	SHIRABAD ...	117	5	247	6	
17	CHUSHKA-GUZAR ...	30	1			
20	MAZAR-I-SHARIF ...	53	2	333	1	
				333	1	

Route No. 49.

FROM SAMARKAND TO MAZAR-I-SHARIF *via* SHAHSHAUZ,* SHIRABAD, AND THE PATA-HISSAR FERRY (3RD ROUTE).

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	SAMARKAND.					<p>This is the shortest and most direct route from Samarkand to Mazar-i-Sharif. It is fit for wheeled traffic to Shahshauz, and also from Ak Sarai to Shirabad, and probably thence to the river and on to Mazar, but the remaining portion, <i>viz.</i>, between Shahshauz and Ak Sarai, is only fit for pack animals and infantry.</p> <p>Stages 1 to 4 of Route No. 45.</p> <p>Stages 1 to 5 of Route No. 57. Here the main GUZAR-Shirabad route (No. 28) is joined.</p> <p>Stages 13 to 14 of Route No. 28.</p> <p>Stages 14 to 17 of Route No. 29.</p> <p>Route No. 41.</p>
4	SHAHSHAUZ ...	55	...	...	...
8	DREBAND ...	93	3	...	...
11	SHIRABAD ...	44	...	...	...
19	PATA-HISSAR FERRY...	46	7	...	...
16	MAZAR-I-SHARIF ...	36	0	...	...
				275	2	

Note.—By the Chushka-Guzar ferry the total distance would be 269 miles.

* A so called Shahr i-Sabz.

Route No. 50.

FROM SAMARKAND TO THE ZARAFSHAN GLACIER (UP THE ZARAFSHAN VALLEY.)

Authority.—RUSSIAN SIBERIAN ROUTE MAP CORRECTED TO 1891; KOSTENKO, ROUTE 84*, AND INFORMATION FROM CAPTAIN PICOT, I.S.C.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Kostenko.		Total by Route Map of 1891.		
		Miles.	Furlongs.	Versts.	Miles.	
	SAMARKAND.					
1	GULBA ...	19	2	29		General direction east along the Zarafshan river. Post road through a succession of villages, corn-fields, and gardens. Country well watered and treed (poplar, willow, mulberry, &c.) Canals from the river give crops of wheat, barley, and lucerne, and nearer the river the rice for which the country is celebrated. Elevation 3,393 feet. Small town (about 400 houses) with a bazar on left bank of Zarafshan near the point where the river debouches into the plains. The inhabitants are mostly weavers and agriculturists, the latter of whom grow wheat, barley, and rice. Grain is plentiful. The valley of the Zarafshan is here about 2 miles wide, but above the town, where the stream assumes the character of a mountain torrent, it becomes narrower and is shut in by hills. The route runs throughout up the river Zarafshan, crossing by bridges from one bank to the other. The road often passes over dangerous cornices hanging over precipices or is on balconies; sometimes it turns away to a short distance from the river, crossing by passes the low ridges of the main ranges of Turkestan and Zarafshan. It is necessary to pass over the bridges single file. The Russian detachment in 1870 moved by this road. The places for encamping and halting are suitable. In the villages on the way only clover is procurable for horses (for about 2 <i>sofnies</i>) and fuel. Barley must be carried with you. It is also impossible to count on provisions, as the inhabitants themselves purchase them at the neighbouring large inhabited points (Ura-Tapa, Khojend, Samarkand). Grazing is met with in sufficient quantities only from Paldorak to the glacier. Varzimino is a small hill fort on right bank of Zarafshan at the point where the Zarafshan is joined by the Fan; it is connected by roads with Ura Taba and Zamin to north and Karategin and Darwaz to south.
2	PANJKEND (FORTIFIED POST).	21	2	32		
	TOTAL ...	40	4	19	40½	
3	DASHT-I-KAZI (VILLAGE)	26	6	40	26½	
4	*URMITAN " ...	10	4½	13	8½	
	*MADAM " ...	5	2½			
	*KUM " ...	3	2½			
	*ZIROVAT " ...	3	2½			
5	VARZIMINOR " ...	5	2½	24	15½	
	SINKISTAN " ...	3	7½			
	ZAZUN " ...	...	5½			
	TAMIN " ...	1	2½			
	FATIMA " ...	2	5½			
	GUZARI-BAD " ...	...	5½			
	*BAZ " ...	2	5½			
	PAKHUT " ...	3	2½			
	SHAVATRI-POYIN " ...	3	7½			
6	*SHAVADAKIA " ...	1	2½	31	22½	
	Carried over ...	115	6	172	114½	

[Compiled by Aminoff and measured by instrument during the Iskandar-Kul expedition in 1870. The Iskandar-Kul detachment was encamped at the villages marked.]

ROUTE No. 50—*contd.*FROM SAMARKAND TO THE ZARAFSHAN GLACIER (UP THE ZARAFSHAN VALLEY).—
contd.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Kostenko.		Route Map of 1891.		
		Miles.	Furlongs.	Versts.	Miles.	
	Brought forward ...	115	5	172	114½	
	VISHAB (VILLAGE) ...	2	5½	...	...
	SNAMTICH " ...	4	5½	...	...
7	OBURDON " ...	3	2½	18	12	Road north to Ura-Tapa.
	PASTIGAU " ...	6	5	...	...
8	LIANGAR " ...	6	2½	37½	25	
	RIVAMUT (VILLAGE)	1	2½	...	...
	KHIDZIN-OFTABRU "	2	5½	...	...
	MAZIS " "	1	7½	...	...
	LANGUR-UZ " "	5	2½	...	...
	VARDAGIT " "	2	5½	...	...
	MADBUSHKAT " "	2	5½	...	...
	TABUSHIN " "	4	5	...	...
	DIMINOFF " "	7	7½	...	...
	PAKSHIF " "	...	5½	...	...
9	PALDOBAK " "	3	7½	...	22½	Total to Paldorak according to Route Map, 173 miles; total according to Kostenko, 171 miles 7½ furlongs. Route map of 1891 gives no distances beyond this point.
	ROG " "	3	2½	...	...	Route map of 93 gives the following stages: Samarkand, 19½ verst. Jambai 30 Chui-Tube 27 Shingak 23½ Jori 26½ Kshpautdak 10 Chashine 45 Varziminor 18½ Veshab 24 Oburdon 32½ Rogif 26½
	KHIDZIFF " "	1	2½	...	...
	LYANGLIFF " "	3	0	...	...
	WADIF ...	3	0	...	...
	DIKAUZ ...	2	5½	...	...
	DIKHISAR ...	1	2½	...	...
10	TOMB (ZIARAT) ...	1	7½	...	...
	GLACIER ...	11	7½	...	...	Ruins of Mulla-Muhammad and Glacier 24½
						Total ... 373½ or 247½ miles.
		202	3½	261½	174½	

ROUTE No. 50—*contd.*

Note.—(a).—From the village of Dasht-i-Kazi to Urmilan by the left bank of the Zarafshan.

[According to Aminoff.]

Alternative to stages 3 and 4 of last route.

Number of stages.	Stages.	DISTANCES.				REMARKS.
		Intermedi- ate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	DASHT-I-KAZI (village)	At 1 verst (5½ furlongs) from Dasht-i-Kazi cross the Zarafshan by a ford, only pass-able at low water. Beyond the road is better than that on the right bank of the Zarafshan which has been just described.
	YABON " ...	4	5			
	URMITAN " ...	5	7½			
				10	4½	

Note (b).—From Urmilan to Varziminor by the right bank of the river Zarafshan.

[According to Aminoff.]

Alternative to stages 4 and 5 of Route 60.

	URMITAN (village)	The road is difficult and dangerous. From Khishkat the road crosses to the left bank by a bridge, and unites with the road by which the Iskandar-Kul detachment marched (Route 60). Except the villages, no places are met with along the road fit either for bivouacs or camping grounds.
	URMITAN-VISHKENT " ...	3	7½			
	DABDAB " ...	5	7½	...	...
	ISKANDAR " ...	2	0			
	KHISHKAT " ...	2	5½			
	VARZIMINOR " ...	3	2½			
				17	7½	

Note (c).—From the village of Pakhut to Veshab by the left bank of the Zarafshan.

[According to Aminoff.]

Alternative to parts of stages 5 to 7 of Route 60.

	PAKHUT (village)	This road separates from that on the bank of the river Zarafshan at 2 versts (1 mile 2¼ furlongs) above the village of Pakhut, and crosses to the left bank of the Zarafshan by a poor wooden bridge into the village of Falmaut; but at 2 versts (1 mile 2¼ furlongs) above Veshab it crosses again to the right bank of the Zarafshan. The road is generally difficult, and from the meridian of Shavadaki to Veshab it is impracticable for mounted men.
	FALMAUT " ...	2	0			
	ODI-MADEL " ...	6	5			
	VESHAB " ...	3	7½			
				12	4½	

ROUTE NO. 50—*concl'd.*

Note (d).—From the village of Oburdon to Pastignu by the right bank of the Zarafshan.

[According to Aminoff.]

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	OBURDON (VILLAGE)	Stage 7, Route 50.
	KOMMODAN ...	3	2½	This road is difficult and hardly practicable for mounted men. Consequently the road on the left bank of the river, <i>i.e.</i> , the route followed by the Iskandar-Kul detachment, is preferable (Route 50).
	PADARSHIN ...	...	2½		
	BIRKAN ...	...	2½		
	PASTIAN ...	2	5			
				0	5	

Note (e).—From the village of Khidziff-Oftabru to Izis.

[According to Aminoff.]

	KHIDZIFF-OFTABRU (VIL- LAGE).	...	...	...	...	See stage 8, Route 50.
	KHIDZIFF-SOYABU (VIL- LAGE).	0	5½	...	...	Horse road for pack animals. Cross the Zarafshan by two bridges.
	IZIS ...	2	5½			
				3	2½	

Note (f).—From the village of Tabushin to Paldorak by the right bank of the Zarafshan.

[According to Aminoff.]

Alternative to latter part of stage 8, Route 50.

	TABUSHIN (VILLAGE)	...	...	...	...	Horse road. Cross the Zarafshan once by a ford near Paldorak.
	SABAK ..	3	7½			
	PALDORAK ..	0	2½			
				13	2	

N.B.—The villages of Mujiff, Podask, Valgon, and Khairabad have no direct intercommunication along the river. Communication is carried on by the main road on the right bank of the Zarafshan, over which there are wooden bridges for crossing.

Route No. 51.

FROM SAMARKAND TO MAGIAN *via* FARAB AND URGUT.*Authority.*—GAZETTEER AND KOSTENKO, VOL. I, PAGE 126, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versts.	Versts.	Miles.	
1	SAMARKAND.	32			
2	KARA-TODR. URGUT (FORTIFIED POST)	20½	...	...	<p>Urgut is 20 miles south-east of Samarkand in Kohistan. The road is fit for wheeled traffic, though in parts narrow and steep. About half way is a village called Naiman.</p> <p>The town is fortified, of some strength, and occupied by a considerable Russian garrison. It is situated in a long and narrow defile penetrating from the steppe almost to the main range of the Zarafshan hills. The hills around are cultivated wherever possible, and the pasture on the remainder affords grazing ground to vast flocks of sheep.</p> <p>There is a road north-east from Urgut to Chim-Kurgan, where it joins the post road from Samarkand to Panjkend.</p>
3	AGHAI-JUMA PASS (7,110 feet).	21½	...	...	<p>Passing near the village of Hish-Dawan, the road leads towards the village of Hus (3,560 feet), beyond which it rises and falls with difficult ascents and descents, and by zigzags over naked rocks. Before reaching the pass it descends somewhat to a mountain stream. In winter there is no communication by the pass.</p>
4	FARAB ...	13	...	...	<p>The descent from the pass is difficult. According to Kostenko, the road is through the village of Masa Bazar, but the route map shows this village about 5 miles to the south of Farab. Somewhat to the east of this road there is another from Panjkend to Farab very difficult for horses.</p>
4	MAGIAN ...	19			
			105½	70½	

Route No. 52.

FROM SAMARKAND TO HISSAR.

Number of stages.	Names of Stages.	DISTANCES.			REMARKS.
		Interme- diate.		Total.	
		Versts.	Versts.	Miles.	
	SAMARKAND ...				
4	SHARSHAUZ ...	83	...	...	Stages 1 to 4 of Route 46.
12	SARI-JUI ...	164½	...	...	Route 58.
13	HISSAR ...	79½	...	...	Stages 8 to 10 of Route 70.
			327½	219½	

Note.—An alternative route would be by Pandjkend (stages 1 and 2 of Route 50), Fan and Route 60, and by Route 63, stages 1 to 6, *vid* the Mura Pass to Hissar. Total distance 180 miles.

Route No. 53.

FROM SAMARKAND TO FAIZABAD (IN BADAQSHAN) *via* KULAB.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	SAMARKAND ...	...	...	...	...
2	PANJKEND ...	40	4	...	...	Stages 1 and 2 of Route 50.
7	FAN ...	77	2	...	...	Route 60.
12	HISSAR ...	80	4	...	...	Stages 1 to 6 of Route 63.
23	KULAB ...	140	...	...	...	Stages 10 to 21 of Route 70.
29	FAIZABAD (IN BADAQ- SHAN).	128	5	...	...	Route 81.
				466	7	

Route No. 54.

FROM SAMARKAND TO KABADIAN.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	SAMARKAND ...					
4	SHARSHAUZ ...	55	...	...	...	Stages 1 to 4 of Route 45.
9	DESHAND ...	93	3	...	...	Route 57.
10	BAISUN ...	12	5	...	...	Stage 1 of Route 70.
17	KABADIAN ...	99	3½	...	...	Route 72 Note.
				260	3½	

Route No. 55.

FROM JAM TO GUZAR *via* CHIRAKCHI.

Authority—KOSTENKO, ROUTE 135, AND RUSSIAN ROUTE MAP, 1893.

Number of Stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.		Total.	
		Vershs.	Vershs.	Miles.	
	JAM ... ..	... ..	... ..	... ..	<p>From Jam, which lies at the foot of the mountains, the road at once enters them, and at 63 furlongs from Jam turns to the left at a granite pillar. Although this road is counted fit for <i>arabas</i>, it is very difficult. The deep ruts, increased by the rain water, make travelling difficult. The road runs the whole time along a stream, sometimes approaching close to its steep and broken bank.</p> <p>At almost half way is the mountain village of Arab-Band. A few miles further on is an extensive hollow with spring water. The village of Kara-Kiya (Bish-Chashma) is situated in a small valley watered by the Kara-Kiya-Bulak stream.</p> <p>Along the banks of this are scattered small patches of lucerne grass, flax, and barley.</p> <p>The right bank is more gently sloping than the left, which descends in terraces. On its sloping, open spaces are situated 10 to 15 earth huts (Kara-Ui) of the Uzbaks of the Kipchaki-Sarai tribe.</p> <p>In the summer the village is empty, as all the inhabitants go to the mountains. Halt can be made for rest at the village of Arab-Band almost half way, or at the ascent to the pass at the small hollow with spring water.</p>
	KARA-KIYA (VILLAGE)	... ..	... ..	... ..	<p>The village of Kara-Kiya is situated 1½ miles to one side of the road.</p> <p>The route from Kara-Kiya through mountains, and beyond them over steppe, presents no difficulties whatever. At the issue of the road from the mountains the Uchun canal flows conducted from the Kara-Kiya Bulak stream.</p> <p>From Kara-Kiya right up to the Kashka-Daria no settled, inhabited points are met with. The mountain steppe, covered with short growing burnt-up grass, is only enlivened by the khibitkas of nomad Uzbaks and by their herds. There are plenty of wells on the steppe, but they are deep, not less than 50 to 60 paces, which is evident from the paths beaten out by the men in drawing up the buckets or skins. There is abundance of water in the wells.</p>
	Carried over ... ..	... ..	... ..	... ..

ROUTE No. 55—*contd.*FROM JAM TO GUZAR *via* CHIRAKCHI—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Vershs.	Vershs.		Miles.
1	TARA-JILDI ...	33	...	...	<p>At 900 yards from the Uchun canal a road branches off leading to the village of Kara-Tube, $1\frac{1}{2}$ miles from Chirakchi on the Kashka Daria, and somewhat before this the road leading to Sharshauz and Kitab is seen. Both these roads pass wells.</p> <p>At 5 miles $2\frac{1}{2}$ furlongs from the issue from the mountains the Chirakchi road rises to a high ridge (Kir) with a gentle opposite slope. At 5 miles $2\frac{1}{2}$ furlongs still further on the road crosses the dried up bed of the Chuyun Daria, after which the range of heights of the Chuyun Kirier at once commences.</p> <p>On its south side is the Chuyun well 300 yards from the road. At 3 miles $2\frac{1}{2}$ furlongs further on are the three wells of Kok-Tash with good water, where one can camp. Halt can also be made at the Chuyun wells.</p> <p>The road on this march nowhere requires repair.</p>
	KOK-TASH WELL ...	...	...	...	<p>The character of the country on this march is the same as on the former one, <i>viz.</i>, even and slightly undulating steppe, covered with dried up grass. At 5 miles $2\frac{1}{2}$ furlongs from the Kok-Tash well are fine wells and watering place of Ikezak, with small plots of wheat cultivation. At 2 miles $2\frac{1}{2}$ furlongs further on is the village of Kal-Tube on two canals led in from the Kashka Daria. At $1\frac{1}{2}$ miles further beyond the Kashka Daria is the town of Chirakchi. The whole extent between Kal-Tube and Chirakchi is taken up with fields, chiefly rice and wheat. The passage of the Kashka Daria is by a ford at the town itself. Usually the Kashka Daria has very little water in it, but in the year 1878 the water was very high. One can encamp for the night in a level and dry field on the Ab-i-Partau canal on the west side of Chirakchi. Halt for rest can be made at the Ikezak wells, 6 miles 5 furlongs from Chirakchi.</p>
2	CHIRAKCHI (TOWN OF)	23	...	...	<p>The road on this march requires no repair. It runs the whole time over an even, dry steppe through fields, and is several times intersected by canals bearing the general name Kairma. The chief canal bearing this name, and from which all the secondary ones are led, is seen on the right of the road between steep banks. At 4 miles, at a single hut a road leading to the village of Kairma branches off to the right. From the Igri-Kul Sai ravine it is 6 miles $2\frac{1}{2}$</p>
	Carried over ...	...	56	37 $\frac{1}{2}$	

ROUTE No. 55—concl'd.

FROM JAM TO GUZAR *via* CHIRAKCHI—concl'd.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versis.	Versis.		Miles.
	Brought forward ...	...	60	37½	furlongs on to Kara Bagh. The <i>araba</i> road suddenly makes a sharp bend in order to avoid this same Igre-Kul-Sai ravine, and runs meandering through sown fields.
3	KARA-BAGH (VILLAGES) ...	18½	...	...	A camp for the night may be chosen on the Guzar road behind the village of Kara-Bagh on fallow wheat-fields. Halt for rest at the Kairma canal, 5 miles 2¼ furlongs from Kara-Bagh at the bifurcation of roads. The road on this march also runs over the same even steppe enlivened by wheat-fields near the villages. A whole group of villages called Kara-Bagh are situated near each other on the canals leading from the Yakka-Bagh-Daria or Kizil-Su. From the central village to the outside one is 2 miles. At 2 miles 5¼ furlongs further the road runs through a belt of gardens and fields disposed in a long band along the steppe on the Kamai canal (issuing from the Langar-Bulak near Yur-Tube, and running almost to Chim-Kurgan). This group of settlements bears the general name of Kamai, after the canal watering them.
4	CHIM-KURGAN ...	17	...	...	At 7 miles 2¼ furlongs from Kara-Bagh another high road crosses, running from Karshi <i>via</i> Chim-Kurgan to Yur-Tube. Between this road and a small series of heights on the left, Uzbek villages (<i>auls</i>) have established themselves at brackish wells. This point is called Uch-Tube. The norads bring water for drinking from cisterns constructed further on near the mountains. From Kara-Bagh to these <i>auls</i> is 8 miles 5 furlongs. At 15 miles 2 furlongs the road once again crosses a range of heights with very easy slopes, and is not difficult for movement. From this range commences an uninterrupted series of wheat-fields belonging to Guzar and the neighbouring villages. At 7 miles 2¼ furlongs from Guzar the road crosses the Abarde canal, and at 1 mile 5¼ furlongs further passes the village of Abarde. From this to Guzar is 5 miles 5 furlongs.
5	GUZAR (TOWN OR) ...	20½	62	41	One can camp at Guzar itself on the canal led from the Guzar Daria on the reaped corn-fields. Halt for rest can only be made on the steppe without water, which in case of necessity can be obtained in skins from the Kamai canal. The road requires no repairs.
			118	78½	

Route No. 56.

FROM SHARSHAUZ* TO GUZAR.

Authority—KOSTENKO, ROUTE 134, YAVORSKI, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
3	SHARSHAUZ. CHIM-KURGAN ...	55½	...	...	} Stages 4 and 7 of Route 45. Kostenko gives the following route from Sharshauz :— Chinkurgon 16 versts. Yar-Tube (Yar-Tapa) 24 " Guzar 24 " Total 64 versts or 42½ miles. Yar-Tube is a large village with a mixed population. It was at one time the southernmost defensive post held by the Amir of Bokhara against Sharshauz. The "tapa" or fortified mound is now in a state of semi-ruin. The high walls which have in many places tumbled down cover an area of from 990 to 1,100 square yards. The ditch is dry. The settlement and the fields in its neighbourhood are supplied with water from a mountain stream called Baugar-Bulak. From Yar-Tube the road runs over even and slightly undulating country covered with stones, and inter- sected by canals. For Guzar, see stage 9 Route 28.
4	GUZAR	26½	...	...
			82	54½	

* Or Shahr-i-Sabz.

Route No. 57.

FROM SHARSHAUZ TO DERBAND *via* KALTA-MINAR.*Authority*—KOSTENKO, ROUTE 133, MAYEFF, AND YAVORSKI, AND ROUTE MAP OF 1893.

Number of stages.	Names of Stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
1	SHARSHAUZ. CHIM-KURGAN (VIL- LAGE)	10	4	...	...	From Sharshauz the road runs through uninterrupted cultivation amongst rice-fields, which can be easily inundated, of which fact the people of Sharshauz used to take advantage in their wars with the Amir Nasrullah. From Chim-Kurgan the road passes villages partly in fields sown with wheat (rice is not sown here), and partly in uncultivated ground used for pasturing camels. Between the <i>kishlaks</i> of Komadan and Yar-Tapa the wheat-fields again begin. Yar-Tapa is a large village on the mountain stream Langar-Bulak. The citadel is almost entirely ruined and is no longer kept up.
2	YAR TAPA*	10	0	...	...	At 4 miles beyond Yar-Tapa the road enters the mountains, and runs between gently sloping hills in a broad even valley. At the beginning of the Yar-Tapa defile the road to Yakka-Bagh turns off. At 10 miles from Yar-Tapa the road traverses the stony defile of Darwaza-i-Kam. Yakka-Bagh is about 5 miles from Chim-Kurgan according to Mayeff, but it is more than twice that distance according to Yavorski's plan. The village of Kalta-Minar is situated on the mountain stream Katta-Uru Daria. This is the residence of an "Amak-Dar." Distance to Kalta-Minar, 29 versts.
3	KALTA-MINAR (VIL- LAGE).	19	...	...	...	From Kalta-Minar the road leads over undulating elevated open ground with moderate slopes. A difficult ascent is met with on issuing from the village of Kalta-Minar in rising on to the Tash-Tube range. The spring of Shakar-Bulak is half way between Kalta-Minar and Kara-Khoyal. At 2½ miles further on the spring of Unar-Bulak is met with. Here the road leading from the village of Koshlush to the Guzar road branches off. Distance 30 versts.
4	KARA-KHOVAL	19	7	...	...	On leaving the village of Kara-Khoyal, the road rises by a steep and narrow path on to the Azis range. After this, at the village of Kotur-Bulak, the road runs in a rocky defile, stony and difficult for travelling. Beyond the country becomes more even, and at the villages of Kusta-Bulak and Ak-Rabat is perfectly suitable even for vehicles.
	AK-SABAI (AK RABAT) ..	...	...	...	...	At Ak-Rabat the Kalta-Minar road joins the Guzar one. Route No. 28, stage 12.
5	DERBAND (TOWN OF) ..	28	...	93	3	The map of 1893 shows a direct road to Derband, 42½ versts.
				93	3	

* According to Route Map of 1893 the road to Yar-Tapa runs *via* Yakka-Bagh and Kairagach, distance 46½ versts or 3¾ miles.

Route No. 58.

FROM SHARSHAUZ TO SARI-JUI *via* TASH-KURGAN.*Authority*—KOSTENKO, ROUTE 132, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	SHARSHAUZ (TOWN OF)				The road from Sharshauz to Yakka-Bagh runs through the continuously cultivated lands of the Sharshauz valley. It is even and good. The gardens of Yakka-Bagh commence at 2 miles 5½ furlongs from the tumulus. Yakka-Bagh is situated on the bank of the Yakka-Bagh Daria. The climate of Yakka-Bagh is very injurious, and fevers are obstinate.
1	YAKKA-BAGH (TOWN OF.)	10½	...	...	From Yakka-Bagh to Tash-Kurgan the road at first lies in the Yakka-Bagh valley along the river, which is a swift mountain stream.
2	TIRYAK	24	...	...	From the village of Pahar the road rises steeply by zig-zags in the rocky slopes of the Mas-Kara-Khoya range, covered with savin and similar brushwood vegetation. Near the summit the road becomes less steep, and is easily practicable to the very summit, which forms a rocky rugged ridge. Having passed this ridge, the road commences to descend into the Tash-Kurgan valley, still lying on the northern slope of the Hissar range.
3	TASH-BALTA	18	...	...	The descent at first is convenient, but then becomes very steep and difficult.
4	TASH-KURGAN (VILLAGE).	17	75½	50	The road presents a narrow path covered with hill rubbish, and winds incessantly round the projections of rocks at the very edge of a precipice. The descent leads direct to the gardens and fields of Tash-Kurgan, a large hill village. Tash-Kurgan uses water from mountain springs. The Tash-Kurgan Daria stream (the source of the Yakka-Bagh Daria) runs below the village in a deep gorge, and is joined here by another stream, Shud-Arad, full of water. The passage of the Tash-Kurgan Daria is by a bridge of primeval construction, and the Shud-Arad is crossed by a ford. After crossing the Tash-Kurgan Daria, the road rises on the red sandstone slopes of the Tash-Kurgan mountains bordering the Tash-Kurgan valley. These mountains form an undulating, hilly highland, and are everywhere covered with cultivation. There is wood (archa) everywhere in abundance. Gradually getting higher, the road at last rises to the main ridge of the Hissar range at the Lagari-Murda pass. Two roads traverse this pass: the first is the shorter, but very difficult; the other considerably better, though but little used. In order to attain the shorter route, the road turns to the right, and by an even easy slope rises to the very summit of the pass, which forms a gravelly, even, cupola-formed open space. Here there are two pyramidal heaps formed of stone marking the summit of the pass. The difficulties then begin with the descent from the pass and the Jigits only make use of this road on hurried marches. They travel the greater part on foot, leading their horses. Excessively
	Carried over ... ..	...	75½	50½	

ROUTE No. 58—*contd.*FROM SHARSHAUZ TO SARI-JUI *via* TASH-KURGAN—*contd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versts.	Versts.		Miles.
	Brought forward ...	...	76½	50½	steep and dangerous owing to numerous landslips, the descent leads down to the bed of the small saltish stream, the Sarimsag-Bulag (or Sur-Su). Here the road rises on to an even, gravelly, open space, and runs along it to red sandstone hills grown over with archa, and forming the slope of a deep channel called the Sarimsagli, in which flows the mountain stream of the same name. This channel leads to the narrow Bakhcha gorge, which has been pierced through the rocky overhanging masses by water. The width of the Bakhcha gorge is from 5 to 10 paces. The rocks almost meet over the head of the traveller, owing to which continuous semi-darkness reigns in the whole gorge. Along the edge of the gorge a stream trickles, which fills up the whole of it in the spring season, when the snow melts; communication then ceases here. This gorge, however, does not extend for more than 50 to 70 yards. The second route leading from the Lagari-Murda pass runs to the left of the first just described, and also comes out in the gorge mentioned above. The descent is by terraces which have short but very steep slopes, and it runs round the deep channel by a narrow cornice. From there the road runs by the Surfa range, crosses once more a shallow valley covered with good grass, and by a series of gradual ascents and descents comes out finally in the Sarimsagli channel. The gorge above mentioned may also be avoided by going more to the west by a convenient and good river channel leading out on the Bakhcha Sai valley, into which the road through the Bakhcha gorge also leads. From the Bakhcha gorge the road lies through the narrow defile of the Bakhcha Sai, forming the upper part of the Sangardak defile. Here the road runs, now on cornices overhanging the mountain stream, flowing swiftly over enormous stones (Sangardak Daria), now on the bank of the stream itself, crossing incessantly from side to side. The road is very stony and dangerous, and often ascends by steep paths to the heights on the bank in order to avoid the bed of the river which is too stony and difficult for passage.
5	SARIMSAGLI ...	26			
	BAKHEHA (VILLAGE) ...	...	...	...	The village of Bakhcha is situated in a small hollow formed by the heights on the bank receding from the bed of the stream. Like all hill villages situated in defiles, it occupies small space in width, but extends lengthwise along the defile. Huts and gardens interspersed with small patches of ploughed land are placed in groups wherever the most suitable places for habitation occur.
					The road from the <i>kishlak</i> (village) of Bakhcha to that of Sangardak is just as difficult as the preceding portion from the Bakhcha gorge to Bakhcha, and crosses incessantly from one side of the Sangardak Daria to the other. With low water, crossing is usually done by fording; but in spring and summer, when the water is high, bridges are used, constructed at different places. The construction of these bridges is excessively simple; it is merely a few trunks of fir cut down and thrown across from one bank to the other.
6	SANGARDAK (VILLAGES).	19	...	...	The village of Sangardak is much more extensive than Bakhcha, but has the same character as all mountain villages. In Sangardak lives the "Am-luk-Dar," who not only has authority over the local population of the <i>kishlak</i> , but over the nomads living in the mountains.
	Carried over ...	...	110½	70½	

ROUTE No. 58—contd.

FROM SHARSHUZ TO SARI-JUI *via* TASH-KURGAN—*concl'd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	Brought over ...	...	110½	79½	The road beyond Sangardak to the exit from the defile is less difficult, although also very difficult to traverse in many places. Where the narrow path clinging to the sides of the rocks on the very edge of a precipice becomes too narrow, 2½ to 3½ feet balconies are constructed; where the rocks approach to the very edge of the river bed, heaps of stones are thrown down, over which a road has to be picked. On this portion of the route also the road is often taken over the side heights to avoid the bank of the river, which is obstructed with huge boulders that have fallen down from the neighbouring cliffs.
7	DAHANA ...	32	...	...	At 1½ miles from Sangardak down the defile an abundant spring of water, clear as crystal, flows from the precipitous rock. The whole of this defile, commencing from the Iakheha gorge, where it begins, to the very end or exit, is grown over with most varied kinds of tree and shrub vegetation. From Sangardak a road goes south-west to Daisun.
8	SARI-JUI ...	13½	...	...	The nearer you get to the issue of the defile on to the plain, the better and more even becomes the road. At the very end of it is situated the village of Dahana, surrounded by fields and gardens: 5 miles 2½ furlongs beyond is the town of Sari-Jul on the bank of the river Tupalan (Tupalak). The citadel of the town is not kept up, and is falling into ruins like all the citadels of the Hisar district, which have now already lost their military significance.
			104½	109½	Sari-Jul is the place of abode of a Bek, to whom also since 1879 the town of Sari-Asia with its district and that of Urchi are subject. In both the towns named, which formerly had their own separate Beks (Bega), Amalak-Bars are now established, furnished by the Bek of Sari-Jul. The road from the village of Dahana to the town of Sari-Jul is every where even and suitable for traffic. Besides this route, there is also the direct route, from the village of Dahana to Urchi. From Dahana to Urchi is 10 miles 6½ furlongs.

Route No. 59.

FROM PANJKEND TO SARI-DJUI *via* MAGIAN AND ACROSS THE HISSAR RANGE.*Authority*—KOSTENKO, VOL. I, PAGE 126.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.																														
		Inter-mediate.		Total.																																
		Miles.	Furlongs.	Miles.	Furlongs.																															
	PANJKEND.																																			
	SUFIN MAGIAN ...	29	0	<p>The road apparently runs east along the Zarafshan to the village of Sujin (Sujana), and then turns south past that of Sujian, and leads over steppe country to the village of Charbak. After crossing to the right bank of the Magian river, the road enters low mountains, and near the village of Kostarash winds through a narrow defile to the junction of the river Shin. Following the right bank, it rises to the Vachekhna mountains. Before reaching the village of Haizan, the road passes to the left bank, and through the village of Khurmi to that of Magian. From this point it follows the upper waters of the Magian, traverses a very difficult pass in the Hissar range, and reaches Sar-i-Jui. Stage 8, Route 59.</p> <p>Nothing is really known regarding the distances on this road. Up to Magian they are taken from the Route-Map. The total is as measured on Walker's map. The Route Map does not show a road beyond the pass over the Hissar mountains at all.</p> <p>The Russian Route Map of 1893 shews a road as far as the Siyakug pass only; the stages are as follows:</p> <table style="margin-left: 20px;"> <tr> <td>Panjkend.</td> <td>...</td> <td>...</td> <td>20$\frac{3}{4}$</td> <td>versts.</td> </tr> <tr> <td>Farmandar</td> <td>...</td> <td>...</td> <td>36</td> <td>"</td> </tr> <tr> <td>Marguzar</td> <td>...</td> <td>...</td> <td>15</td> <td>"</td> </tr> <tr> <td>Siya-Kug</td> <td>...</td> <td>...</td> <td>15</td> <td>"</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="border-top: 1px solid black;">71$\frac{3}{4}$</td> <td>versts or</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>48$\frac{1}{2}$ miles.</td> </tr> </table>	Panjkend.	20 $\frac{3}{4}$	versts.	Farmandar	36	"	Marguzar	15	"	Siya-Kug	15	"				71 $\frac{3}{4}$	versts or					48 $\frac{1}{2}$ miles.
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				48 $\frac{1}{2}$ miles.																																
	SARI-JUI ...	71	0																																	
				100	0																															

Route No. 60.

FROM PANJKEND TO FAN (SARVADA) *via* KSHUT.

Authority—KOSYAKOFF AND KOSTENKO, ROUTE 93, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter-mediate.		Total.	
		Versts.	Versts.	Miles.	
	PANJKEND.				
1	GUMAR	23½	...	...	The road at first runs along the bank of the Zarafshan river, traversing a level country well adapted for wheel traffic. At the 4th mile a sharp but well-made descent is reached. At the 6th mile the hamlet of Sujan stands on both banks of the Magian river, across which there is a bridge. At a point about ⅓ds of a mile short of the village of Gumar there is another descent of about 350 yards long equally steep.
2	KSHUT	24½	48	31½	For about 5 miles the road is through a neatly ploughed valley, and at the 5th mile passes through a ravine of about 350 yards, and comes out again into a valley on the right side of which, at a distance of about ⅓ds of a mile from the road, is the hamlet of Sauran. From the hamlet of Varzikand, situated at the 6th mile, the road, after passing for a distance of 2 miles over an easy slope, rises to a mountain, and then, after crossing a low pass, turns in a south-easterly direction towards the very steep descent to the Voru stream, along the left bank of which it continues to run. At ¼ miles short of Kshut road passes to right bank, and after about ¼ mile enters a narrow gorge. There are bridges at both these crossings. Wild almond, wild cherry, and sweet briar, as well as vegetation of other kinds, are only met with in crossing the pass to the Voru river, and along the banks of that stream. The road from Varzikand to Kshut can only be called good for pack animals, as it is quite impracticable for carts.
	PANJRUD (VILLAGE) ... ..	...	...	...	Road at first along right bank of Karai-bag (Pasrud according to Kostenko), and along the edge of a narrow valley which is crossed by the road. Before the hamlet of Panjrud is reached, the road passes by a bridge to the left bank, and beyond the same hamlet returns again to the right. It then runs, now along a cornice, now through small cultivated gorges. At the 4th mile the Artuch stream enters the Karai-bag on its right bank. At about the 7th mile is the hamlet of Artuch. At ½ miles from this hamlet there is a bridge, which the road crosses, and then runs along the left bank of the river. The banks of the Karai-bag, and especially of its
	ARTUCH ,, ... ..	...	...	...
	Carried over ... ..	...	48	32	

ROUTE NO. 60—*contd.*FROM PANJKEND TO FAN (SARVADA) *via* KSHTUT—*concl'd.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Vershs.	Vershs.		Miles.
	Brought forward ... ..	...	49	32	affluent the Turash, are covered with vegetation of the most varied kind. From here the road continues to cross and recross, and becomes steep and stony, and rises and descends to two or three low passes, and then by a short, but narrow and very rocky descent, leads to the lakes of Kul-i-Kalan.
	KUL-I-KALAN (LAKES AND BOUNDARY)	...	...	...	These lakes are situated in a depression 2 to 3 miles from east to west, and about 1 mile from north to south. The height is 9,800 feet, but to the south and south-east rise snowy peaks exceeding 12,000 feet. There are two large and very deep lakes and several smaller ones.
3	ROZI-RABAT PASS (KSHTUT PASS), 11,000 FEET.	31	...	...	From the lakes the ascent to the pass is very steep. Koz'yakoff says there is only one track leading to Marguzar, <i>viz.</i> , by the Rozi-i-Rabat pass. According to Kostenko's route, the pass is called the Kishtut pass, and is 2 miles $2\frac{1}{2}$ furlongs from lake Kul-i-Kalan.
	MARGUZAR ... ..	...	...	...	From the pass the road is a mountain path following mostly the Sarza river, and descending to the Surkh-ab, on the left bank of which stands the hamlet of Marguzar on a mountain slope. The track can only be described as a pack-road, and not even that in all places.
	PASHRUD	25	...	...
6	FAN (SARVADA)	13	...	...	About $\frac{1}{2}$ mile lower down the Surkh-Ab from Marguzar a stream, called Uz Sar, enters its right bank. Here a bridge has been built. The road passes here and rises to a high rocky declivity, and on the other side of this a sharp descent leads into a narrow valley sown with rye, barley, and wheat. The hamlet of Pashrud stands on the left bank of the Surkh-Ab at a distance of 2 miles from Marguzar. At this point the river is crossed by four bridges. Over the third of these the road passes to the left bank of the Surkh-Ab, but at the edge of the village returns again to the right bank, and so continues to near the village of Pinion (2 miles from Pashrud), when it once more crosses to the left of the stream. The hamlet of Pinion lies between rocky hills, which skirt the left bank of the Surkh-Ab. From it is seen on a hill to the north-east the hamlet of Kan. From Pinion the road follows the left bank of the Surkh-Ab for about 2 miles to the point of its junction with the Fan, where, on the left bank of the Surkh-Ab, lie the ruins of the old fort of Sardab (Sarvada).*
			117	78	

NOTE. — Three roads lead from Kshtut to the Panjkend plain. The southern rises from the village straight into the hills, and runs to the village of Guzar; the central one, by which the Iskander Kul detachment marched runs for 6 vershs (4 miles) along the course of the Kshtut Daria; then turning sharply to the west, crosses moderately high hills, and descends to the village of Varzikandi, whence it leads over a plain by Guzar to Panjkend. The northern road follows the course of the Kshtut Daria to its mouth, and leads to the village of Guzar on the level, there uniting with the roads described above.—(*Kostenko*).

* The village of Fan is not shown on the Map of 1893 but its position is clearly marked as it is situated at the point, where the road from Varziminoor to Karatag crosses the road.

Route No. 61.

FROM URA-TUBE AND ZAMIN TO URMITAN *via* THE KUM BEL PASS.*Authority*—KOSTENKO, VOL. I, PAGE 121.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.																																																
		Inter-mediate.		Total.																																																		
		Miles.	Furlongs.	Miles.	Furlongs.																																																	
	URA-TUBE.					General direction south-west. Distances approximate.																																																
1	SHAKHRISTAN ...	16	The road runs along the Shakhristan valley, and along the course of a small mountain stream up to the Kum-Bel pass. Thence to Katta-Shibar and the Machit river, from whence it leads west, traversing low mountains and the river Kizil-Mazar into the Obi-Kul defile. From this an ascent is made to the Langer pass, and thence by a low easy pass to Urmitan.																																																
2	URMITAN CHASHME ...	40	0			<p>A branch from Zamin (16 miles distant) joins at the Obi-Kul defile. The Langer pass is practicable in summer. The road from Zamin to Urmitan <i>via</i> the Langer pass appears to run due north and south.</p> <p>The Russian Route Map of 1903 shows the following Route.</p> <table style="margin-left: 20px;"> <tr><td>Ura-Tube.</td><td>...</td><td>24½</td><td>verss.</td></tr> <tr><td>Shakhristan</td><td>...</td><td>30½</td><td>"</td></tr> <tr><td>" pass</td><td>...</td><td>27½</td><td>"</td></tr> <tr><td>Varzimnor</td><td>...</td><td>16</td><td>"</td></tr> <tr><td>Chashme (Urmitan)</td><td>...</td><td>16</td><td>"</td></tr> <tr><td></td><td></td><td>107½</td><td>verss. or</td></tr> <tr><td></td><td></td><td>71½</td><td>miles.</td></tr> </table> <p>From Zamin stages are as follows :</p> <table style="margin-left: 20px;"> <tr><td>Yar-Tube</td><td>...</td><td>0</td><td>verss.</td></tr> <tr><td>Kizil-Mazar</td><td>...</td><td>40½</td><td>"</td></tr> <tr><td>Chashme</td><td>...</td><td>23½</td><td>"</td></tr> <tr><td></td><td></td><td>65</td><td>verss. or</td></tr> <tr><td></td><td></td><td>43</td><td>miles.</td></tr> </table>	Ura-Tube.	...	24½	verss.	Shakhristan	...	30½	"	" pass	...	27½	"	Varzimnor	...	16	"	Chashme (Urmitan)	...	16	"			107½	verss. or			71½	miles.	Yar-Tube	...	0	verss.	Kizil-Mazar	...	40½	"	Chashme	...	23½	"			65	verss. or			43	miles.
Ura-Tube.	...	24½	verss.																																																			
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		65	verss. or																																																			
		43	miles.																																																			
				56	0																																																	

Route No. 62.

FROM URA-TUBE TO VARZIMINOR BY THE SHAKHRISTAN PASS.

Authority—KOSTENKO, VOL. I, PAGE 121, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versts.	Versts.	Miles.	
	URA TUBE.				
1	SHAKHRISTAN ...	24½	...	...	This is the most beaten track between Ura Tapa and Falgar (?). Two roads lead from the pass. The first leads down from the mountains along the Shakhristan defile alongside a stream. It is a very good road. The second traverses the mountains by steep and long descents from the Shakhristan defile,* crosses the defile of the Obis-Bar river, and descends from the mountains of Tobis-Tagh to Varziminor. The junction of the road lies about three miles above the village of Hishkat. The second road is far more difficult than the first. The ascent to the Shakhristan pass from the north is very steep, descent easy.* The distance from Shakhristan to the pass can only be considered approximate.
2	SHAKHRISTAN PASS .. (17,700 FEET).	30½			
3	VARZIMINOR ...	27½			
			91½	61	

* The map of 1893 calls the Hishkat Pass in Kostenko, the Shakhristan Pass.

Route 62 A.—From Oburdou to Ura-Tube *via* the Auchi Pass.

Captain Picot rode by this route. He says there is a steep incline from Oburdou to the pass, but the road in no place offers serious difficulties to mountain ponies. Forest covers the hills. From Yangi Arik the road traverses wheat-bearing country at foot of the Turkistan mountains. Distances Yangi Arik 29 versts; Auchi 16; Oburdou 23½ total 73½ or 49 miles.

Route No. 63.

FROM VARZIMINOR TO KARATAGH AND HISSAR.

Authority—KOSTENKO, ROUTES 91 AND 100; KOSYAKOFF, AND CLARKE,
AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versts.	Versts.		Miles.
	VARZIMINOR.	...	...	...	General direction south along the Fan Daria. Water, fuel, forage and grass abundant. There is a detailed plan of part of this route surveyed by Kosyakoff.
	FAN* ... ..	...	...	...	Fan is about 16 miles from Varziminor.
	NARVAT	29½			The road from Varziminor is through the narrow deep valley of the Fan defile and pass, piercing the Zarafshan mountains due north and south. This wild and narrow gorge presents great impediments to passage. The commencement is at a height of 4,500 feet, and the end at Sarvada 6,300 feet. The road passes at first along the east side of the Fan river, crossing to the west by a bridge called Tul-i-Mullah (<i>the Mullah's bridge</i>). The path serpentines above the river over rocks and along a dangerous cornice. The sides of the defile present the highest interest to the geologist; beds of various sandstones, white layers of gypsum and marble, schist, and granite; seams of coal in places.
					The old fort of Sarvada is at the junction of many mountain roads, by which the neighbouring countries are connected. The distance from Varziminor to the ruined fort of Sarvada is 13 miles 2 furlongs according to the Russian route-map.
	LAKE ISKANDER-KUL	...	...	...	From Fan the road, a convenient one for pack animals, passes south-east along the left bank of the river. At 2½ miles beyond the fort, near the junction of the rivers Yagub and Iskander, it bends to the south-west, following the course of the latter river. After passing through some Fan villages (Khairnabet, 8 miles from Fan, Jijik 2½ miles further on, and Narvat), the road at the 16th mile commences a long and steep ascent to lake Iskander. The lake lies two miles to the south of the ascent. The path leading near the lake is very dangerous, but far easier than that along the bank of the Fan Daria. Lake Iskander-Kul lies between mountains, the top of which are bare, but the slopes are covered with juniper and grass. The lake is 7,120 feet above sea-level, and is 2 miles long by about 1 across. There is a good description of this lake and its feeder streams given by Kosyakoff.
2	SARI-TAG	16			
	MURA PASS (12,000 FEET)	16	65½	43½	The road from lake Iskander to the Mura pass follows the western shore of the lake for 2½ miles, and then leaving it follows the Sari-Tag stream. The banks of the Sari-Tag opposite the hamlet of that name, are clad with forest as well as grass. For 6 miles from the lake pack animals can move with ease. Afterwards it becomes more difficult. Before entering the pass, there is a mass of rocks. The ascent to the pass is very steep and snowy. After rising to an elevation of 12,000 feet, the road descends to a glacier, presenting great difficulties even for men on foot. Across the glacier the path leads to a second pass (12,200) at two-thirds of a mile from the first.
	Carried over ... ..	...	65½	43½	

ROUTE No. 63—*conld.*FROM VARZIMINOR TO KARATAGH AND HISSAR—*conld.*

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versts.	Versts.		Miles.
	Brought forward ...	...	65½	43½	
4	KHAKIMI (VILLAGE) ... (HAKIMI)	23	...	...	<p>The descent from the Mura is very steep and difficult. The river Khotch-Asan takes its rise in the second pass. At the 5th mile from the crest, the Dih-Khan-Daria enters the Kotch-Asan on its right bank, and from this point of junction appear juniper trees and various kinds of grass, which, however, are unfit for horses' food. The Kotch-Asan is now called the Khakimi, and the road is on the left bank by cornices along a mountainous and rocky declivity, paved here and there with planks. Passage difficult. The river is crossed several times before the hamlet of Khakimi, or Khakim, is reached. It is on the right bank. It contains 20 mud-built houses inhabited by agricultural Tajiks.</p> <p>The distance from the Mura pass to Khakimi is given by Kostenko as only 4 miles, and that to Kara-Tagh as 21; but these are probably not so correct as those of Kosyakoff, who regularly surveyed the road. The distances now shown are from the Route Map 1893.</p>
5	KARA-TAGH ...	27	...	...	<p>Track first follows the right bank of the Hakimi, and then enters a very rocky gorge 5 miles in length. At the first mile beyond the exit the Sarbin stream enters the Khakimi, and at the beginning of the 3rd mile the road crosses to left bank, which, however, it only follows for a distance of 1½ miles, and then returns again to the right bank. Along this it continues as far as the hamlet of Liabijai, where it enters a small valley, to the right of which there are ploughed fields, and to the left a grove of willow trees. This hamlet stands on a spur which runs down from the Kara-Tagh mountains towards the right bank of the Khakimi. The mountains in this locality are less precipitous, and their slopes are for the most part either under cultivation, or are covered with trees of various kinds. From the hamlet of Liabijai the road becomes incomparably better, and crosses by a bridge to the left bank of the Hakimi, which it follows for about 1½ miles; then again to right bank till Abdu. Here the road once more crosses by a bridge to the left bank, and runs along it up to the town of Kara-Tagh. Pass three villages; then detached huts. The closer Kara-Tagh is approached, the more considerable is the fall in the height of the surrounding hills.</p> <p>The town of Kara-Tagh stands on both banks of the Hakimi. The bazars, and the greater number of the houses, of which there are said to be 70, are on the left bank, while on the right, on a spur of the mountains, stands the fort, or, to speak more correctly, the former residence of the once independent Beks. Now both the fort and its surroundings are neglected and uninhabited, and the present Bek lives in the town.</p> <p>Kara-Tagh is famous for its knife-blades, but the chief occupation of the inhabitants is agriculture. Grain is raised without artificial irrigation.</p> <p>After reaching the town of Kara-Tagh, the river Khakim changes its name to that of the town it washes.</p>
	HISSAR ...	30½	80½	53½	
			145½	97½	

Route No. 64.

FROM FAN TO THE SOURCE OF THE YAGNAB RIVER.

Authority—KOSTENKO, ROUTE 92; AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCE.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	FAN (SARVADA).					
1	RADAT	12	...			<p>The road is very difficult, although passable for mounted men. It runs the whole way up the river, crossing by shakly little bridges from one bank to the other, only occasionally deviating from the river a short distance. The lower part of the defile of the Yagnab is very narrow and racky, which makes the road difficult. The portion between Anzob and Margiff is especially difficult. Before reaching the latter place, the road for a considerable distance, is on balconies added on one to another in steps, i. e., so that the end of the upper one is more than 2 feet above the end of the lower one. Movement along these balconies is very dangerous.</p> <p>At a few versts from the village of Vazrat the character of the defile changes. The valley of the river Yagnab widens out considerably, the mountains recede in places to a distance from the course of the river, and the hill sides, covered with meadow vegetation, become more gently sloping and accessible. Water and grazing are met with in abundance. There is a little fuel (bushes) in the vicinity of the road, and it is also brought by the inhabitants from the mountain gorges.</p> <p>The Route Map, 1893, shows the following stages from Fan.</p> <p>1. Takfan 18 versts. 2. Anzob 30 " 3. Khshartab 13½ " 4. Novobad 20 " 91 versts or 60½ miles.</p>
	Takfan	2	5			
2	ANZOB	12	0	28	5	
	Margiff	4	0			
	Khush-rabat	4	0			
3	VASRAT	6	5	41	2	
	Martumain	2	5			
	Vagensai	0	5			
	Shahsara	0	5			
	Dumsai	0	2			
	Shavita	0	2			
	Khishak darf	1	2			
	Naumitkam	0	2			
	Chukat	0	2			
	Iskan	5	2			
	Novi-Main	0	5			
4	DER-I-BALAN	0	5			
	Kyansi	2	5			
	Kirioute	1	2			
	DER-I KALAN	2	5			
	Novobad	4	0			
5	SENGI-MAILEK (DOV- DABY.)	5	2			
6	SOURCE OF THE RIVER YAGNAB.	10	5	80	2	
				80	2	

Route No. 65.

FROM THE VILLAGE OF ANZOB (ON THE RIVER YAGNAB) TO THE VILLAGE OF
DUSHAMBE IN THE PROVINCE OF HISSAR.

Authority—KOSTENKO, ROUTE 90, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Versta.	Versta.	Miles.	
	ANZOB (VILLAGE).				
	ANZOB PASS	Pass easily practicable. The road reaches the valley of the river Zigdi-Daria by an easy descent. Caravans from the Hissar district furnishing the villages of Kohistan with corn travel by this route.
	IBOLA (VILLAGE) ...	...		
	Namaza ..	...		
1	Zigdi ..	20			
	Penchok ..	...		
2	Khushior ..	20			
	Paguse ..	...		
	Gazdi ..	...		
	Dazir ..	...		
3	FORT VARSOB ...	21 $\frac{1}{2}$			
4	DUSHAMBE (TOWN) ...	24	85 $\frac{1}{2}$	67	
			85 $\frac{1}{2}$	57 $\frac{1}{2}$	

Route No. 66.

FROM THE VILLAGE OF DEH-I-BALAN (ON THE RIVER YAGNAB) ACROSS THE
HISSAR RANGE TO KAFIRNIHAN.

Authority—KOSTENKO, ROUTE 97; AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	DEH-I-BALAN (VILLAGE)					From the pass the road descends by the river Kafir- nihan, and traverses inhabited places. The Route Map shows the following road from Novabad 1. Ruzgar 10½ versts. 7 2. Pichev 9 " 6 3. Vistan 13½ " 10 4. Khokhl 12 " 9 5. Romit 17 " 12 6. Kafirnihan 27 " 20 80 versts or 59 miles
	DEH-I-BALAN PASS ...	18	1			
	ROMIT VILLAGE ...	39	1			
	KAFIRNIHAN (TOWN OF)	18	7	76	1	
				76	1	

Route No. 67.

FROM THE VILLAGE OF WADIF TO THE VILLAGE OF KHWAJA-CHAUK DOWN THE RIVER DIDIKHI (DUBURSA), AN AFFLUENT OF THE GORIFF.

Authority—KOSTENKO, ROUTE No. 95.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	WADIF (VILLAGE).					
1	WADIF PASS ...	6	0	The Wadif pass is fit for foot passengers only. At Khwaja-Chauk the road unites with that leading from the Pakshif pass and garni, Route No. 68.
2	DUBURSA (VILLAGE) ...	8	0			
	DIDIKHI ,, ...	5	2½			
4	ZIA-JANGIL ,, ...	5	2½			
5	KHWAJA-CHAUK ...	10	0	34	5	
				34	5	

* Not on Route Map of 1893

Route No. 68.

FROM THE VILLAGE OF PAKSHIF TO GARM BY THE PAKSHIF PASS AND DOWN
THE RIVERS GORIFF AND SOR-BOKH.

Authority—KOSTENKO, ROUTE No. 96, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Versets.	Versets.	Miles.	
	PAKSHIF (VILLAGE).				
1	PAKSHIF PASS ...	16½	The ascent of the pass and the pass itself are comparatively easy. The road then runs down the river Goriff, which, on uniting with the Didikhi, is called the Sor-Bokh. The village of Beni-Sofian is situated 2 miles 5 furlongs above the junction of the Sor-Bokh and the Surkh-Ab. From Beni-Sofian the road turns eastward to Garm up the Surkh-Ab and the villages of Karaiman, Kocho-Maldi, Kasmak, Shul, and Sari-pul.
	GORIFF (VILLAGE) ...	...		
2	Pasrod ,, ...	26½			
	KHWAJA-CHAUK (VIL- LAGES).	...			
3	Shingalik ...	23			
	Kaurak (VILLAGE) ...	...		
	Dch-i-Khojali ,, ...	...		
	Jingan ,, ...	...		
	Yam ,, ...	...		
4	Pojé ,, ...	18			
	Sherse ,, ...	...		
	BENI-SOFIAN ,, ...	...		
5	SARIPUL ...	20			
6	GARM (TOWN OF) ...	3			
			106½	71½	Total distance according to Kostenko, is 60½ miles.

Route No. 69.

FROM THE ZARAFSHAN GLACIER *via* THE YARKICH PASS OVER THE HISSAR MOUNTAINS, TO KARATEGIN.

Authority—KOSTENKO, ROUTE No. 94.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	ZARAFSHAN GLACIER.					
	YARKICH PASS ...	5	2	The road up to the pass, and the pass itself are very difficult; it then descends into the defile of the river Deh-i-Mil-i-Udal, at the commencement of which it divides into two branches; the left crossing the mountains leads to the insignificant hamlet of Nagar-Ailak, situated on a small stream running into the Deh-i-Mil-i-Udal. The right road runs down the river Deh-i-Mil-i-Udal, and at the village of Sokan leads into the valley of the river Surkháb (Kizil-Su or Red River). From the village of Hisarak a road branches off to the right, and, crossing some low hills, leads to Garm, the chief town of the province of Karategin. This latter road is very practicable, and it passes through an inhabited district abounding in pasture and water. The main road from the Alai valley to Garm passes through the village of Sokan.
1	DEH-I-MIL-I-UDAL, OR DEH-I-MULLAR BADAL.	14	4			
	Dikhuchi (village) ...	1	2			
	Kizil-Kurum ..	2	0			
	Dashti Kurum ..	0	5			
	Divana Su ..	2	5			
	Tura-Tal ..	1	7			
2	YARKHICH-BALA ..	5	2			
	Yarkhich-Mian ..	0	5			
	Yarkhich-Poyin ..	1	2			
3	KHAIT ..	7	7			
	HISARAK ..	5	2			
	SOKAN ..	2	5			
4	RIVER DEH-I MIL-I-UDAL (MOUTH OF)	2	5	53	5	Junction with the Surkh-Ab river in Karategin.
				53	5	

* Not on Map of 1893.

Route No. 70.

FROM DERBAND TO KULAB *via* DENAU, KARA-TAGH, HISSAR,
FAIZABAD, AND BALJUAN.

Authority—KOSTENKO, ROUTES 144 TO 147; AFGHAN BOUNDARY COMMISSION
RECORDS, PAGE 353, KOSYAKOFF; AND ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter- mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	DERBAND ..	...	...	...	...	From Derband to Baisun the road runs through three passes—Sakirtma, Bai-Kiderni-Uri, and Yalgiz-Bach. The ascent to the latter pass is especially difficult, and from it a magnificent view over the Baisun valley opens out. On the ascent to Yalgiz-Bagh there is a Tajik village with good gardens.
1	BAISUN (TOWN OF) ...	12	6	...	...	From Baisun the road leads along a range of hills by rich villages. The locality is even, and suitable for movement; it only becomes undulating at the village of Chash-Tube, 4 miles from Sari-Kamish. Sari-Kamish is a small settlement, consisting of three <i>sarais</i> , surrounded by poor patches of cultivation on the bank of a saltish stream. There are other sources of spring water not far off, but these are also saltish.
2	SARI-KAMISH (POINT)	13	2	...	...	From Sari-Kamish the road leads along an even hill valley, and at 2½ miles from Sari-Kamish enters the picturesque Ak-Karachugai defile. This defile extends for 6 miles 5 furlongs. The road is good throughout. At the bottom of the defile runs a stream of saltish water, but fit for drinking. At half way, on issuing from the defile, the ascent of the Tarapak-Altish height is more difficult than the descent from it. The second half of the road presents no difficulties to movement, and runs through a somewhat undulating tract to the village of Mir-Shade. At Mir-Shade is a toll station and small sarai. Water abundant in "juis."
3	MIR-SHADÉ (VILLAGE)	17	2	...	...	From here to Denau the road runs through a cultivated district past rich villages. At 2 miles from Denau the road crosses the river Kizil-Su by a ford. Denau forms the central point of the whole Hissar district, and on this account, as well as owing to the fruitful and rich cultivation and populousness of the whole tract of the upper course of the Surkhan, great importance is attached to Denau. During the last insurrection in Hissar in 1869 the forces of the whole district concentrated at Denau, and with the fall of this town the entire country was subjugated.
4	DENAU (TOWN OF) ...	18	4	...	...	The Bokharans met with no resistance even in distant Kulab and Kurgan-Tube notwithstanding the warlike character and well-known enterprize of Sari-Khan, the chief of the Kulab Uzbaks. Denau is described in Afghan Boundary Commission records as a large city with large bazar and many "pucca" buildings. The town of Denau (<i>i.e.</i> , new village) has a half ruined wall and citadel. It is governed by <i>Beks</i> sent from Bokhara.
	Carried over ...	..	...	61	5	

ROUTE No. 70—*contd.*FROM DERBAND TO KULAB *viâ* DENAU, KARA-TAGH, HISSAR, FAIZABAD,
AND BALJUAN—*contd.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought forward ...	...	...	61	5	
5	YURCHI (TOWN OF) ...	5	3	...	...	The road to Yurchi runs through a continuously cultivated district; both towns are supplied with water from the Khoja-i-pak river flowing out of the mountains opposite Yurchi. After Yurchi gardens soon end, and a small elevated valley commences, grown over with occasional bushes of tamarisk. After passing clayey hills, the road towards the end of the march enters the excellently cultivated basin of the river Turpulan, an affluent of the Surkhan. The river Turpulan is here called after the name of the village of Sari-Assia.
6	SARI-ASSIA (VILLAGE) ...	5	5	...	...	The inhabitants remove to the hills in summer; in winter the population of this little town amounts to 2,000 (see also stage 5 of Route 58 for further description of Sari jui.) The river Turpulan attains a breadth of 46 to 51 yards, and is unfordable. At about 300 yards above the town there is a bridge over the bed of the stream, which is here contracted. The length of the bridge is about 30 paces. Half way between Sari-Assia and Dash-Novat is the village of Taggiyan.
7	DASH-NOVAT (VILLAGE) ...	16	...	...	...	Dash-Novat is a comparatively large village, and boasts of pomegranate gardens. From here the road leads over a beautifully cultivated tract right up to Regar.
8	REGAR (TOWN OF) ...	9	2½	...	...	Regar has a citadel inferior in strength only to those of Hissar and Shirabad. From Regar the road leads along an elevated valley; on the right extends the northern extremity of the Baba-Tagh range, without any very marked summits; on the left there is also a range of hills, but much less massive than the Baba-Tagh.
9	KARA-TAGH (TOWN OF) ...	12	0	...	...	Kara-Tagh is a small hill town with an abandoned citadel. It lies in a defile at the base of the massive Kara-Tagh range on the bank of the Kara-Tagh Daria, over which, at the town itself in the bazar, a bridge leads. Kara-Tagh is celebrated for the manufacture of the so-called Hissar swords and knives; the workmen only live here in summer and remove to Hissar in winter. The Governor of Hissar (the Amir's son) and all the notables also come here in summer. On the road to Hissar three villages are met with—Shur-Ab, Suji (Chuji), and Kaj-Ab. The road constantly approaches the northern extremity of the Baba-Tagh, and then runs along its eastern slope. The Baba-Tagh here runs as a low lateral range as far as Hissar. The swift Khanake-Daria flows under the walls of the Hissar rampart, supplying the town with water and its fields also, and inundating all the locality about the town.
10	HISSAR (TOWN OF) ...	20	1	...	...	Hissar with its strong citadel constructed on a rock, defends the entrance to the Pai-Duldul defile, which forms the commencement of the Kafirnihan valley. Hissar is the residence of a <i>Bek</i> , who governs the whole of the Hissar district. Although the title of "Shad-man," or "the joyous," is given to the town, it would more appropriately be called "the sickly," as the climate is unhealthy owing to the marshes surrounding the town. The buildings in Hissar have double-sloped roofs, and are besides fine and high. The situation of the town is picturesque. The building which forms the palace of the <i>Bek</i> is very fine.
	Carried over ...	...	...	129	5½	

ROUTE NO. 70—*contd.*
 FROM DERBAND TO KULAB *vid* DENAU, KARA-TAGH, HISSAR, FAIZABAD, AND
 BALJUAN—*contd.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought over ...	...	...	129	6½	A very detailed description (and also a surveyed plan) of the route from Kara-Tagh to Hissar and also to Kobadian and Kulab will be found in Kozakoff's "Road notes of a journey through Karategia and Darawaz, 1892." From Hissar the road leads to north-east almost at right angles to the road from Kara-Tagh into Hissar. The route lies in a mountain valley rich in water, in places even inundated and thickly populated by nomad Uzbaks. These Uzbaks migrated here in 1866 from about Ura-Tube and Jizak. Lower down the valley are other nomad Uzbaks.
11	DU-SHAMBE (TOWN OF)	13	2	...	...	Du-shambe, with its strong citadel on a hill, lies at the entrance to the Varzab defile on the bank of the Zigdi-Daria, which is hardly fordable. Above the town of Du-shambe, at the entrance of the defile, there is a bridge over the river. There are no fords below Du-shambe. From Du-shambe to Kafirnihan the road runs in an easterly direction along the massive Ghazi-Malik range. Up to the village of Shakh-Mansur the road is even and good. From the village of Chokh-Mazar, on the left side of the road, grassy hills appear, the foreland and spurs of the Varzab-Tagh range. On the right are seen the villages of Hazret-Mulaui, Karivach, and others.
12	KAFIRNIHAN (TOWN OF)	20	1	...	...	At the Kafirnihan river there is a wooden bridge (36 paces long) from which the road returns along the left bank of the river, and passing several villages and nomad encampments reaches Kafirnihan, which lies on the left bank of the river Kafirnihan-Daria. From Kafirnihan the road at first runs south-east; then approaching the Yarjil hills, it turns along the foot of them, and enters a defile not very broad, but suitable for travelling. The Yarjil hills are full of villages; all suitable spots, and even the sloping sides of the hills are cultivated, and gardens are seen in the low ground. The first village in the mountains along the route is called Chashma-i-Akash.
13	FAIZABAD (TOWN OF)...	16	2	...	...	Faizabad lies in a plain, cultivated to a remarkable extent, has a healthy climate, and abundant hill streams and meadows, which remain green the whole summer. The river Iyak, an affluent of the Kafirnihan, flows through the valley about half a <i>tash</i> (2 miles 6½ furlongs) from Faizabad. The citadel of Faizabad is half ruined. Height 3,020 feet.
14	NARAK (VILLAGE)* ...	10	5	...	...	The route from Faizabad to the village of Narak crosses the Kaudon range. The height of the pass is 3,350 feet above the level of the sea. The ascent is excessively steep. The summit of the pass is taken up with fields; the slopes of the hills above are green with woods of the most various kinds. Settlements are met with along the route; three of these bear the common name of Kaudon. The descent from the hill is more gentle, but steep places occur upon it, in which the road is cut in steps. The descent is especially steep at two places near a winding ravine, which bears the name of "the copper mines," near the village of Khairabad. On descending from the pass the traveller reaches the valley of the river Vaksb, the width of which is here not more than 800 yards. The village of Narak is surrounded with a wall 4 miles to the north of the village is constructed the celebrated bridge of Pul-i-Sangi (<i>the stone bridge</i>) The length of the bridge is 10 paces, and it is
	Carried over ...	...	...	135	7½	

* The Route Map of 1893 does not show this road to Baljuan.

ROUTE NO. 70—*contd.*FROM DERBAND TO KULAB *via* DENAU, KARA-TAGH, HISSAR, FAIZABAD, AND
BALJUAN—*contd.*

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought forward ...	...	...	89	7½	supported on two projecting rocks rising high above the level of the river. The width of the stream here is not more than 20 paces. The path from Narak winds over rocks, sometimes descending almost to the course of the Vaksh, and sometimes leading by steps cut out of the rocks. This road bears the name of "Dandan-Shikan" (<i>i.e.</i> , the broken teeth or the tooth-breaker).
15	DURT-KAUL (VILLAGE)	10	5	...	...	The village of Durt-Kaul is situated in the valley of the Vaksh, here not more than 600 yards wide. The hills bounding the valley are grown over with various kinds of vegetation (nut, pistachio, and others). At the village of Darwaza-Kala the road leaves the Vaksh valley, and turns to the south-east by the Ab-i-Kura defile. Beyond this comes the ascent to the Sebistan-Tagh range. The ascent, although steep, is not stony. The slopes of the mountains are covered with the <i>Skorodosma (Asafetida)</i> and other plants. On one of the terraces the road passes the summer abode of the Uzbaks of the Lyakai and Khulluk tribes, rich in horses. This summering place is called Lyakai-Yailiau.
16	LYAKAI-YAILIAU ...	13	2	...	...	From here the road rises very steeply by a narrow path to the summit of the Guli-Zudan pass. The descent from the pass is excessively steep and dangerous. Slopes of 50° and 55° are met with. On descending from the pass the road issues on the valley of the Kangur-Bulak stream, which is well cultivated. Here in a small hollow nestles the rich village of Kangur.
17	KANGUR (VILLAGE) ...	10	5	...	...	From Kangur the road at first leads by the valley of the river Kangur, and soon enters the narrow valley of Ruja-Kul. A sloping ascent leads on to a terrace-like high ground, on which is the small village of Kara-Guzar. From the village a steep descent leads to the Kara-Su stream, and afterwards the road rises to the steep Jari-Parran pass. On descending from the pass the road turns east-south-east, and runs parallel to the course of the Kichi-Surkh-Ab stream and the Baljuan range. Near the descent, the village of Jari-Parran is met with on the river, and somewhat further on is the ruined village of the same name, deserted by its inhabitants in consequence of incessant inundations. Here the road crosses the Kichi-Surkh-Ab by a ford and reaches Baljuan, situated where the Baljuan valley unites with one of the lateral defiles.
18	BALJUAN (TOWN)* ...	10	5	...	...	The town is built both in the valley and the defile. Thanks to its height above the level of the sea (2,130 feet), the climate is not hot. The direct road to Darwaz branches off here. This road, which is over snowy ranges, is extremely hard and difficult. It is traversed in two to three days. From Baljuan the route runs down the valley of the Kichi-Surkh-Ab to the south as far as its exit from the Jari-Parran defile. The country is inhabited; along the route are the villages of Faizabad and Sulduzi. The road, gradually rising, leads to the pass over the Baljuan-Tagh range; this pass bears the name of
	Carried over ...	...	...	235	½	

* The Route Map of 1893 shows the following route from Faizabad to Baljuan—

	Versts.		Versts.
Dahana ...	18	Brought forward ...	92
Tut-Kaul ...	15½	Lake-Liaur-Kul ...	21
Chuden ...	33½	Toy Chashma ...	26½
Saug-Tuda ...	25	Baljuan ...	32½
Total ...	92		172 or 114 miles.

This road runs almost due south to Sang-Tuda and then returns sharp to the north-east.

ROUTE No. 70—concl'd.

FROM DERBAND TO KULAB *via* DENAU, KARA-TAGH, HISSAB, FAIZABAD,
AND BALJUAN—concl'd.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	Brought over ...	..	...	235	½	
19	UZUR-AKIR...	16	0	...	...	Uzur-Akir (the long manger). This name is also given to the valley lying along the eastern slope of the range as far as the small summer resort of the Uzbaks of the Lyakni tribe. On the pass itself, in a small hollow, is the small Uzbek hill village of Shar-Shar. The Baljunn-Tagh generally is full of villages. The eastern side of the Baljunn-Tagh is much more sloping than the western side from Baljunn. On descending from this range along the Uzur-Akir-Bulak stream, at its point of issue from the mountains is the large and rich village of Pushian, and near it another and not less important village of the same name.
20	PUSHIAN (VILLAGES) ...	10	5	...	...	From Pushian the road runs throughout to the south-east, crossing diagonally the Kulab valley, which gradually widens out. At Pushian it is not more than ½ mile wide, but at Kulab it has already attained a width of 2 to 2½ miles. There are many villages along the road, and the nearer one approaches Kulab, the thicker is the population.
21	KULAB (TOWN) ...	8	0	...	...	The town of Kulab has received its name from the lakes and inundations with which it is surrounded. Owing to these lakes and inundations, the climate of Kulab is extremely unhealthy. Within the limits of the town wall there are not more than 400 houses; but all round the town gardens are scattered about to a great distance. The citadel of Kulab is in a very bad state. The streets of the town are wide and comparatively clean; the town is built along ravines at the foot of rather low hills standing in a detached group.
				269	5½	

NOTE.—The population of the Hissar district is almost exclusively confined to the valleys of the upper course of the rivers Surkhan and Kafirnihan. Here lie the towns of Denau, Urcbi, Regar, Sar-i-Jui, Sar-i-Asia, Kara-Tagh, Hissar, Du-shambe, Kafirnihan, and Faizabad. There is direct communication from Denau to Hissar through the Baba-Tagh range. This is, however, a winter road: in summer it is little frequented owing to want of water. The northern towns serve as a link between the Usbak population of the valleys and the Tajik population of the hill villages. The population of the northern towns is, however, almost exclusively Tajik; the Uzbaks are here a newly arrived race.

The remaining towns of the district serve, as it were, as advanced posts for the heart of the district, which is incontestably contained in the above-noted locality (the basin of the Upper Surkhan and Kafirnihan). These towns are—on the east, Baljunn and Kulab (in the basin of the Panj); on the south, Kurgan-Tube (on the lower course of the Vaksh); Kosadian (on the lower part of the Kafirnihan); and Shirabad (on the lower part of the Shirabad Daria; on the west, Derband and Baisun.

Holding the tract at the upper Surkhan and Kafirnihan, with small garrisons in Kulab and Baljunn, the Amir has the whole district under his sway, and owns the upper course of the Amu Daria from its point of junction with the Vaksh to Kelif (Kostenko).

Route No. 71.

FROM BAISUN TO SHIRABAD.

Authority—KOSTENKO, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Vershs.	Vershs.	Miles.	
	BAISUN (TOWN OF)				
1	KHOJA-BULGAN ...	18½	...	...	Although the road runs through the mountains, no great impediments are met with.
2	LIATLIKAN (VILLAGE)	39			
3	SHIRABAD (TOWN)—	19½			
			77½	51½	

The route from Hissar to Kurgan-Tube runs through the mountains intersecting the mountain mass of the Ghazi-Malik diagonally. By this route it is reckoned 7 *tash* (66 *vershs* or 37 miles 1 furlong) from Hissar to Kurgan-Tube. Half way is the hill village of Alar, the place of residence of an "Amlak-dar" who governs the Ghaz, Malik nomads (Kostenko).

Route No. 72.

FROM BAISUN TO KABADIAN *via* KOKAITI.*Authority*—KOSTENKO, ROUTE 148, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.		Total.	
		Miles.	Furlongs.	Miles.	
	BAISUN (TOWN) ...	...	...	...	Stage 1 Route 70.
1	KAFINUN (VILLAGE) ...	10	5	...	The country from Baisun is of an undulating character, and the road is intersected by steep ascents and descents. The village of Kafinun lies amongst bare and sterile hills. Close by, to the north on this road, is the village of Tungai-Kurgan. Kafinun is $8\frac{1}{2}$ miles from Baisun according to the route map.
2	KUL-KAMISH BAND-I-KHAN.	5	2	...	The road runs by a moderately broad mountain valley gradually widening out to the north. Kul-Kamish is a small stony hollow, with a stream in it enabling some sort of cultivation to be carried on.
3	KAPTAGAI (VILLAGE) (ARPA-PAYA.)	27	7	...	At first the road runs through the mountains, now by narrow paths winding amongst stones over steep places, now by mountain valleys and hollows, in which the nomads have found shelter for their <i>auls</i> . After this the road enters the great Bandi-Khan defile, in the range of the same name, with the salt stream of Gub-hak-Bulak flowing through it, the water of which even horses will not drink.
4	KOKAITI (VILLAGE) ...	10	5	...	At Kokaiti the river Surkhan is reached. The right bank of the Surkhan is much poorer in villages than the left. The village of Kaptagai lies on the right bank of the river on one of its branches. The width of the Surkhan at Kokaiti is about 233½ yards; the depth is not great; there are shallow portions, but no ford.
5	CHAGATAI WELL ...	24	4	—	At $\frac{1}{2}$ mile from the village of Kokaiti the Surkhan is crossed in a miserable kuyak (boat). After crossing, the road passes through the green valley of the Surkhan; then by a stony ascent to the Ak-Tube summit; afterwards through a small, even, sandstone valley between low hills. The steppe is crossed at 21 miles 2 furlongs from Chagatai.
6	BASH-CHAR-BAGH (VIL- LAGE).	21	2	...	The elevated steppe of Ak-Tube occupies the whole space between the southern portions of the rivers Kafirihan and Surkhan. Along this route the road passes the point of Chagatai with the well of the same name.
7	KABADIAN (TOWN) ...	5	8	...	The road runs through a tract taken up with rice fields, and consequently very much inundated and unhealthy. The direction of the route is south-east. After an hour's ride through submerged rice-fields the fords over seven branches of the Kafirihan are reached, four of which are very deep (up to a horse's neck). The islands between the branches are thickly grown over with jid, reeds, tamarisk, thorns, and are full of wild fowl and also wild boar and tigers.
	Total ...	...	...	108	

Note.—The stages and distances according to the Russian Route-Map, 1893, are as follows:—

		Versts.
1	Kafinun ...	13
2	Bandi Khan ...	19½
3	Arpa paya ...	22
4	Kokaiti ...	...
5	Bash-Charbagh ...	68
6	Kabadian ...	9
	Total ...	143½ = 96 miles.

Route No. 73.

FROM DENAU TO THE PATTÀ-HISSAR FERRY (ROAD ALONG THE SURKHAN).

Authority—KOSTENKO, NOTE TO ROUTE 140, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.	
		Interme- diate.	Total.			
		Vershs.	Vershs.	Miles.		
	DENAU.				Stage 4 Route 70. Chief centre of the northern portion of Hissar.	
1	POSTUN-DABA ...	18½	This road is described as a convenient one, and running, as it does, along a river and through villages the whole way, it is probable that no great difficulties are presented either to movement or in regard to supplies. The route-map shows a road also on the other bank. This follows right bank, crosses to left at Arpa-paya and follows that bank to the ferry.	
2	KUL-TUBE ...	15½				
3	KUM-KURGAN ...	28½				
4	ARPA-PAYA ...	17½				
5	KOKAITI (AK-KURGAN)	11		Road from Shirabad to Kabadian crosses here.
6	URA KHANA (ZA-KHANA)	17½				
7	AK-TUBE ...	6				
8	PATTÀ-HISSAR ...	23½				

Route No. 74.

FROM FAIZABAD (IN HISSAR) TO GARM (ROAD UP THE SURKH-AB OR VAKHSH RIVER).

Authority—KOSTENKO, ROUTE 169, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
		Vershs.	Vershs.	Miles.	
	FAIZABAD (TOWN OF)... Stage 13, Route 70.	...	...	...	The road runs throughout up the river Ilak. There is water in abundance along the whole route, also sufficient grazing; often, too, lucerne grass is procurable, but not for a large detachment. Barley is sown by the inhabitants, but not in great quantity; they often bring barley mixed with wheat. Plenty of fuel everywhere. In lower and upper Karategin (i. e., between Kala-i-Dasht and the mouth of the Sorbokh) and between Zanka and Little Karamuk the wild growing trees and bushes can be used for this purpose, but in central Karategin (between the mouths of the Sorbokh and Zanka) it is necessary to buy trees from the gardens for fuel, for tree and bush vegetation is everywhere quite destroyed close to the road.
1	KALA-I-DASHT* (VILLAGE) KALAI-KOL.	24½	...	...	For the first 6 miles 5 furlongs the valley is wide, cultivated, and inhabited. It then contracts into a defile. An ascent commences, which, however, is not difficult, and continues for 2½ miles. At 10 miles 4½ furlongs the road comes out on the widened upper portion of the Ilak valley, bearing the name of Dasht-i-Bidan. This locality is even, with many fields. Kala-i-Dasht is a small village of about 50 families. Generally throughout the whole Ilak valley there are a number of villages, but they are nearly all situated to one side of the road and not very important, often consisting of only three or four houses. The cultivated and inhabited portion of the valley extends for about 1½ miles. Then for 7 miles the even and broad portion (about a mile in width) of the valley, the Dasht-i-Bidan, is continued, but occupied by the summer camps of the Kuluk Uzbeqs; the Karategin frontier runs across it, and in it are also found the sources of the Ilak and the right source of the Obi-Garm-Daria flowing in the opposite direction; then the road crosses to its left source (the descent is not steep to it); the passage of the stream is by a ford; there is a bridge, but a very poor one. One then rides along the left bank of the left source until its junction with the right, and then by the left bank of the Obi-Garm-Daria. The road almost throughout is along the hill slopes, sometimes at a great height above the stream, but the soil is soft, and there are no difficulties; small villages of three or four huts are seen here and there to the side of the road. Obi-Garm, of about forty houses, is surrounded by a wall; there is also a citadel.
2	Obi-GARM (VILLAGE)...	23	...	...	From Obi-Garm the road descends to the river, crosses it by a ford (there is a bridge), and then rises up a spur separating the Obi-Garm-Daria from the Surkhob. The descent to the latter is very steep. It then runs up the right bank of the Surkhob, and crosses the Obi-Garm-Daria by a bridge at its mouth. From this spot to Ali-Galaban the valley of the Surkhob twice narrows to a defile, and at these points the road runs by cornices lying very high above the river; the ascents to these are very steep. The cornices themselves are well constructed; they are stony. It is very easy to destroy the road here, as there are a good number of balconies. Passage of a small stream by a bridge. On the road there is one village, and to the side of it there are many, but all very small. Ali-Galaban is also a small village on the stream of the same name.
	Carried over ...	...	46½	30½	

* Kalai-Kol on Russian Route Map.

Route No. 74—concl'd.

FROM FAIZABAD (IN HISSAR) TO GARM (ROAD UP THE SURKH-AB OR VAKSH RIVER)—concl'd.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Interme- diate.	Total.		
			Versts.	Versts.		Miles.
	Brought forward ...	..	40½	30½	
	ALI-GALABAN (AB-I-GULABAN).	..	..	..	From Ali-Galaban an ascent commences on to a spur running down to the Surkhah; it is not high (200 to 300 feet above the village), but steep. Then by the expanded portion of the valley of the Surkhah, at the end of which is the mouth of the Hakimi; passage by a ford; the water is only up to the knees, but the current is swift. Beyond, the road turns to the left and runs along the eastern slope of a spur, which divides the Hakimi from the Muju-Harf Darin. As it runs along the spur, it passes the village of Muju-Haraf, and then descends to the Muju-Harf Darin, and crosses it by a bridge (there is also a ford) about 1 mile below the village of the same name. The village was formerly surrounded by a wall, but the Bokharans have now destroyed it. Beyond the bridge is an ascent on to a spur separating the valleys of the Muju-Harf-Darin and the Surkhah. The ascent is very steep in places, running over soft ground. This pass is called the Muguk; it rises to at least 1,000 or 1,500 feet above the river. The descent into the valley of the Surkhah is tolerably gentle. Several villages are scattered over the slope. Beyond the descent a new opening out of the Surkhah valley commences, in the centre of which stands the village of Chinar, and at its eastern end that of Pombashi.
3	CHINAR ... POMBASHI SAM-SALKON (VILLAGE)	36	...	...	The road in this part is tolerably good; there are three ascents, in places very steep, but not dangerous. On the road are two villages, Linggar and Pandochi. Sam-Salkon is a group of four villages situated at some distance from the Surkhah. Part of the road from Sam-Salkon to the mouth of the Sorbokh consists of a series of ascents and descents, and almost throughout runs at a distance from the river. The locality is inhabited. Passage of the Ab-i-Dasht-Siyah; the water, where the river flows in one channel, is up to a horse's belly; below, however, at ½ mile from the mouth it splits up into branches, and there the water is much less. The road then turns to the left, and for 1 mile rises up the Surkhah valley. The stream is crossed by a bridge (a very bad one, at the village of Pojé. A ford also exists at the very mouth of the Sorbokh, where it divides into branches; but the ford is very difficult. Beyond the bridge the road first runs down the left bank of the Sorbokh, and comes out at another considerable opening of the Surkhah valley. This part is thickly inhabited and well cultivated. About 3 miles 2½ furlongs from Garm the valley contracts, and the road runs round three projections, resting on the river on cornices and balconies, very strong, and, though wide enough, somewhat dangerous. Near the second projection is a bridge across the Surkhah; the first in Karategin, and on the opposite bank is the village of Sar-i-Pul. Garm is situated on the right bank of the Surkhah; there are 200 to 300 houses in it. There is no town wall, but a fortification is constructed on the bank of the river. This is in good condition, but not large, and the greater part of the village commands it.
4	POJÉ ...	36	...	...
5	GARM (TOWN OF) ...	23	...	...
			138½	91½	

Route No. 75.

FROM HISSAR TO KABADIAN.

Authority—KOSTENKO, ROUTE 151, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	HISSAR.					From Hissar the road leads over a plain by the bank of the Khanake Daria to the village of Kanchi at 3 miles, where it enters the Kafirnihan valley at the junction of this river with the Khanake Daria. From here for 9 miles $2\frac{1}{2}$ furlongs up to the former post of Tash-Kala villages are met with uninterruptedly. After Tash-Kala villages cease and <i>auls</i> are only occasionally met with. At 5 miles from Tash-Kala is the point of Shurian with salt-pits.
1	SHURIAN ...	21	7	...	...	Commencing at the village of Kanchi, the road runs in the Kafirnihan valley, which is wide and suitable for movement; it is bounded on the right by the spurs of the Baba-Tag, and on the left by the Ghazi-Malik mountains.
2	AK-MECHET (MASHAD)	18	$4\frac{1}{2}$	...	...	At 20 miles from Shurian the last village on the river is met with—Ak-Mechet. Here the road crosses to the left bank of the Kafirnihan by a ford to the aul of Khoja-Bulbulan, and runs along the low ground by the river for 12 miles $4\frac{1}{2}$ furlongs to the point of Shur-Tugai, which has some poorish melon-beds and fields. Cultivation is also met with beyond in a few places, chiefly near the boundary of Ishkovat, where rice is also sown. Beyond this no fields are met with on the left bank of the river. The road runs past low ground, sometimes over a dry and dusty tract, sometimes over the hills along the bank, bearing the different names of Khairachi, Ak-Tau, Bacha-Masar, &c. Not far from Kabadian the heights end; the road issues on a plain covered with the tents of nomad Uzbaks. Here commence gardens of mulberry, dwarf elm, and "chinar" (plane tree) along the bank of the Kafirnihan.
3	SHUR-TUGAI ...	12	$4\frac{1}{2}$			
4	KABADIAN ...	35	$6\frac{1}{2}$	86	$6\frac{1}{2}$	Fords across the Kafirnihan exist at the following places: at Kalchi-Kishlak, 4 miles from Hissar; at Ak-Mechet, and at Kabadian. At Ak-Mechet a road joins from Denau.
	Total ...	...	...	86	$6\frac{1}{2}$	

NOTE.—The stages and distances according to the Russian route-map, 1893, are as follows:—

	Versts.
1. Sokhta ...	16
2. Turak ...	17
3. Ak-Mechet ...	26
4. Ruchey Poda ...	23
5. Ruins of Chinglish-Kals ...	28
6. Basheharbagh ...	10
7. Kabadian ...	9
Total ...	132 = 86 miles.

Route No. 76.

FROM NARAK TO KABADIAN.

Authority.—KOSTENKO, ROUTE 150, AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	NARAK.*					From Narak the road at first leads up the river Vaksh to the village of Durt-Kaul, 10 miles 5 furlongs. Durt-Kaul is a large village in the valley of the Vaksh with gardens and melon-beds.
1	DURT-KAUL ...	10	5	...	...	From Durt-Kaul the road leads up the Vaksh for another 2 miles to the entrance to the Darai-Chilan defile. The road through the defile is in every way suitable; there is water in the stream flowing in the defile. At 8 miles the road leads out on to a high plain covered with hillocks, with auls and good grass. Trees are met with in places—mulberry and willow. At 15 miles 2 furlongs from Durt-Kaul is the kisblak of Mulla-Aman with good water and fields.
2	MULLA-AMAN ...	15	2	...	...	From this wintering hut the road runs along the same highland, occasionally intersected by a channel with spring water. The further south one goes, the sterner becomes the country. By the valley of the Ishn the road comes out at the point of Sang-Tuda, which is situated on the bank of the Vaksh. This spot is occupied by auls, corn-fields, and melon-beds.
3	SANG-TUDA ...	17	4	...	...	From Mulla-Aman to Sang-Tuda is 17 miles 4 furlongs. From here the road runs on the left bank of the Vaksh, partly in the low ground by the river, partly rising on the heights along the bank. At 8 miles from Sang-Tuda the road crosses the Tabakti range and comes out on the Kurgan-Tube plain, at first stony (near the hills).
4	KURGAN-TUBE ...	25	1	...	...	} Stages and distances from Russian route map, 1893. For description, see stages 10 to 13 of Route 83.
5	LIAGMAN ...	15	1	...	...
6	JILI-KUL ...	11	...	...	...
7	KABADIAN ...	26	...	120	5	
				120	5	

* Narak and Durt-Kaul are not shown on map of 1893.

From Faizabad the stages to Sang Tuda are as follows:—

Dahana	...	...	...	18	Versts.
Tut-Kaul	...	...	...	15½	"
Chuban	...	...	...	33½	"
Sang-Tuda	...	...	...	2	"
Total	...	...	...	92	,, or 61 miles.

Route No. 77.

FROM KABADIAN TO TASHKURGAN BY THE KHSHT TAPA FERRY.

Authority—AFGHAN BOUNDARY COMMISSION ROUTES AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KABADIAN.					
1	SAYAT ...	14	2	...	...	Road along right bank of Kafirnihan river.
2	KHSHT-TAPA AND AIVAJ FERRIES.	19		...	1	<p>The ferry is at Aivaj during the summer months about 5 miles lower down stream than Khsht-Tapa. Aivaj is on the north bank.</p> <p>The river here is nearly a mile in width; current about 4 miles an hour. Depth in main channel said to be very great.</p> <p>There is only one boat on each side capable of carrying two or three camels.</p> <p>There is the customary small post of khasadars at the Afghan side of the ferry. No soldiers or guards of any sort are kept on the Bokharan side of any of the crossings.</p> <p>The width of the Khsht-Tapa ferry is about 700 yards. River in two channels. Ferry just below the island. On the Bokharan shore a reed hut marks the starting point.</p> <p>Khsht-Tapa itself is an artificial mound of rather irregular shape on a sort of headland (100 feet), narrowing the Oxus at the apex of a re-entering bend. It is the site of an ancient fortress. From the base of the mound rocks stretch out half-way across the stream and form a rapid, but there is smooth water near the right bank. There was said to have formerly been a bridge here. Colonel Maitland says it is no doubt an excellent site for a permanent bridge, but not a very favourable spot for ferrying over a large number of troops even in late autumn and winter, when alone it would be practicable.</p>
3	TASHKURGAN (KHULM)	30	0	...	...	<p>Roads to Tashkurgan lead from both the ferries.</p> <p>Level road across sand most of the way. The distance is from the Khsht-Tapa ferry.</p>
				63	0	

Note.—The road here given leads from Kabadian to the Aivaj ferry. There is also a road on the left bank of the Kafirnihan leading to the Khsht-Tapa ferry. Distance about equal.

Route No. 78.

FROM KABADIAN TO KUNDUZ *via* THE TAKHTI-KUVA CROSSING.*Authority*—RUSSIAN ROUTE MAP, 1893, AND AFGHAN BOUNDARY COMMISSION RECORDS.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KABADIAN.					
1	TAKHTI-KUVA ...	29	1	...	...	No inhabitants at Takhti-Kuva, it is believed. It is a place where gold washing was formerly carried on. There is a single ferry boat belonging to the Bokharan side. The Vaksh river runs into the Amu about 2 miles above the point where the Kunduz joins it on other bank. The Takhti-Kuva ferry is about half-way between the mouths of these two rivers.
2	KUNDA-GUZAR ...	30	0	...	...	Road along the right bank of the Kunduz river, which is here crossed; quite impassable in summer. There is no crossing at its mouth or near it. There is a road on the other bank from Khisht-Tapa. From Kunda-Guzar either branch of the Kunduz can be followed. As the town of Kunduz lies between them, they have to be crossed in any case. The ford on the northern or Khanabad branch is probably at Kizil-Burah. See Route 80, stage 9, that on the southern Khak-Kani.
3	KHAK KANI FERRY ...	24	0	...	...	Ferry by which the main road from Tashkurgan and Kunduz crosses in summer. Said to be one boat.
	KUNDUZ ...	6	0	...	...	Distance approximate.
				69	1	

Route No. 79.

FROM KURGAN-TUBE TO KUNDUZ BY THE DIRECT ROUTE.

Authority—AFGHAN BOUNDARY COMMISSION RECORDS AND RUSSIAN
ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KURGAN-TUBE					
1	KHAN-TUBE ...	9	0	...	...	The road is said to be very good and much travelled.
2	KARAU-TAPA (NEAR SARAI).	36	0	...	...	This passage of the river Oxus has had no name as far as we have known hitherto. The name here given for it is from a Russian map.
3	HAZRAT-IMAM (IMAM SAHIB).	9	0	...	...	} See stages 7 to 10 of Route No. 80.
4	SARDARA ...	18	0	...	...
5	KIZIL BUBAH ...	12	0	...	...
6	KUNDUZ ...	5	0	...	...
				89	0	

Note (a).—The road from Hazrat-Imam to Tashkurgan usually followed is, according to Maitland, as follows :—

From Hazrat-Imam to Kunda-Guzar (crossing of the Kunduz river), 30 miles mostly over Chol. Thence up the left bank of the Kunduz to Kala-Zal 20 miles, Khisht-Papa 30 miles, and Tashkurgan 30 miles. This is a very round about way, and is probably used on account of the difficulty in obtaining sufficient water on any other line.

Route No. 80.

FROM KULAB TO KUNDUZ.

Authority—RUSSIAN ROUTE MAP, 1893, AND CAPTAIN PICOT.

Number of stages.	Names of stages.	DISTANCES.				REMARKS.
		Inter-mediate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KULAB.					According to a Russian staff map of 1896, the road from Chubek to Sarai is fit for wheeled traffic. Captain Picot says that this is the usual caravan route, and the only difficulty is for 2 months in summer, when fording is dangerous. Then only two caravans go by Samti (Route 81). From Chubek the road follows the Amu Daria.
1	KAIRAGACH ...	11	5			
2	CHUBEK ...	8	5	...	...	The Bokharan name of the Yang Kila crossing of the Amu probably a ford in winter.
3	SAYAT ...	9	2			
4	MAIDA PATTA ...	13	2			
5	GALLI ...	17	4	...	...	At Maida Patta a road branches south-east to Kakul, 16½ miles, where there appears to be a crossing of the river, but no information about it.
6	SARAI (KUNDA GUZAR) CROSSING OF THE OXUS.	11	5	...	...	Crossing of the Amu; ford in winter. Road crosses the river here.
7	HAZRAT-IMAM (IMAM-SAHIB).	9	0	...	...	Distance approximate. Probably a little less. Hazrat-Imam is described as a town as large as Mazar-i-Sharif, but without any shops, though there is a bazar twice a week.
8	SARDABA ...	18	0	...	...	Roads to Khanabad and Kunduz said to branch here, but probably not till Kizil-Burrah, see Note (a).
9	KIZIL-BURAH ...	12	0	...	...	Village on right bank of Khanabad stream. Cross to left.
10	KUNDUZ ...	5	0	...	...	Distance approximate.
				115	7	

Note (a).—From Kizil-Burrah the road (a very good one) leads along the left bank of the Khanabad river, 18 miles to Khanabad.

(b).—The best road from Kulab to Tashkurgan would be by this one to Hazrat-Imam, and thence by the route described in Route 79 Note (a).

Route No. 81.

FROM KULAB TO FAIZABAD (IN BADAUKHSHAN).

Authority—KOSTENKO, 171, ROUTES IN ASIA, SECTION III, No. 22, AND
CAPTAIN PICOT.

Number of Stages.	Names of stages.	DISTANCES.				REMARKS.
		Interme- diate.		Total.		
		Miles.	Furlongs.	Miles.	Furlongs.	
	KULAB.					The road from Kulab is fit for wheels throughout; it is at first even, and then runs among low hillocks. Near the village of Samti the River Amu is crossed on "gupsars" (inflated skins). The width is about 500 paces. The village lies on the left (Afghan) bank, and is inhabited by Tajiks. Captain Picot heard that this portion of the Route was "rough and difficult," and that it was only followed by caravans when the river was high, as the passage is easier.
1	SAMTI (VILLAGE) ...	18	4½	...	...	From Samti the road runs in a defile for a distance of 2 <i>tash</i> (about 10½ miles). The defile then widens out into a valley covered with good grass. The road is throughout fit for wheels. Tajiks inhabit Fort Chayab.
2	FORT CHAYAB ...	18	4½	...	...	From Chayab the locality is low and level. The road is fair and fit for wheels. Picot says difficult and only fit for ponies.
3	FORT RUSTAK ...	19	7	...	...	Rustak is inhabited by Tajiks. For 2 <i>tash</i> (10½ miles) from Rustak there is steppe, and beyond this for about 5½ <i>tash</i> (29½ miles) defiles. Wheel road. At the village there is a passage by a wooden bridge to the left bank of the Kukcha. <i>Arabas</i> cannot cross it. The inhabitants of the village are Turkis.
4	VILLAGE ON THE LEFT OF THE KUKCHA (KARALIK ?)	29	6¾	...	...	From the village of Karalik (?) the road leads through an inhabited locality. Road fair and fit for wheels. The village of Argu is inhabited by Turkis.
5	ARGU (VILLAGE) ...	29	6¾	...	...	From the village of Argu the road runs up the river Kukcha over steppe, and is fit for wheels.
6	FAIZABAD (TOWN OF)...	11	7½	...	...	At Faizabad the river Kukcha is crossed to the right bank by a single wooden bridge, broad enough to admit of the passage of <i>arabas</i> .
				128	5	

According to Routes in Asia No. 22, the total distance is only 69 miles. The stages are also somewhat different.

Route No. 82.

FROM GARM TO KALA-I-KHUM.

Authority—NATIVE INFORMATION BY OSHANIN, AND RUSSIAN ROUTE MAP, 1893.

Number of Stages.	Names of stages. *	DISTANCES.*			REMARKS.
		Interme- diate.	Total.		
			Vershs.	Vershs.		Miles.
	GARM.				
1	CHIL-DARA (CHAHIL DARA).	29	...	...	The road from Garm to the capital of Darwaz, Kala-i-Khum, first runs down the right bank of the river Surkhab, and then crosses to the left bank at the village of Sar-i-Pul, where there is a bridge. Here the road divides into two branches, re-uniting at the fort of Chil-Dara belonging to Darwaz. One of these branches runs by the Kamechirak pass; this is the most direct route from Garm to Chil-Dara, the distance being about 20 miles. The pass is half way. From the pass the road runs along the Shak-Ab stream, at the mouth of which is situated Fort Chil-Dara on the right bank of the Khulias.
2	TABI-DARA ...	22	...	...	The road over the Kamechirak is only practicable in summer, so the other is used for winter communication. This second road leads from Sar-i-Pul down the left bank of the Surkhab, and passes through a defile through which the river breaks. In this defile there is apparently a very narrow place; it is avoided by the small Yafch pass, which receives its name from a Karategin village situated on its summit.
3	SAGRI DASHT (fort and village).	23	...	...	The Khulias is only here and there fordable in autumn and winter; consequently a bridge is constructed over it below Chil-Dara at the Darwaz village of Pashal. The whole distance by this winter route from Garm to Chil-Dara is about 40 miles.
4	KHOBUYU AND BABAT (villages).	17	...	...	At Chil-Dara the summer and winter routes unite, and the road then runs by the right bank of the Khulias through a well-cultivated and thickly-populated valley. Opposite the fort of Tabi-Dara is a bridge. Tabi-Dara is situated on the left bank of the Khulias (16 miles) from Chil-Dara.
5	KALA-I-KHUM ...	13	...	...	At Tabi-Dara the road leaves the valley of the Khulias, and runs to the village of Sagri-Dasht. This latter stands on the river of the same name running into the Khulias somewhat above Tabi-Dara. The valley of the Sagri-Dasht in its lower part changes into a narrow defile, passable with difficulty; consequently it is only used in winter, when the snows under the direct route from Tabi-Dara to Sagri-Dasht impracticable. In summer one rises direct from Tabi-Dara to the Zakh-Bursi pass. The whole distance from Tabi-Dara to Sagri-Dasht by the direct road is 10 miles 6 furlongs, and by the winter one 16 miles. Beyond Sagri-Dasht the road leads across the Darwaz range, which here serves as the watershed between the river systems of the Surkhab and the Ab-i-Paniah. It is crossed by the Khobuyu Rabat pass. This pass is lower than that of Zakh-Bursi, but more stony and steeper, especially the descents. On its southern side are situated opposite to each other on the banks of the river Khumbu the two villages of Khobuyu and Rabat. It is counted 16 miles to them from Sagri-Dasht, and the same from them to Kala-i-Khum. This latter part of the route is very hard; it runs along the defile of the river Khumbu by narrow cornices constructed now on the right bank, and now on the left of the river, which often has to be crossed by bridges. There are 15 bridges altogether in this part.
			104	60½	The total distance by the shortest summer route is, according to Kostenko, 78 miles 2 furlongs. This information is also from "enquiries." By the winter route the distance would be 104 miles.

* From the Route Map, 1893.

Route No. 83.

FROM KALA-I-KHUM TO KABADIAN *via* KULAB AND KURGAN TUBE.*Authority*—KOSYAKOFF AND RUSSIAN ROUTE MAP, 1893.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
			Versats.	Versats.		Miles.
	KALA-I-KHUM ...	...	...	...	The fort of Kala-i-Khum stands on the right bank of the Anu-Daria (Panj) river and on the left bank of the Khumboi which falls into the Panj to the north of the fort. The area on which the fort stands is 280 by 210 feet. The fort itself is constructed of stone cemented with mud and interlaced with wood, the whole being smeared over with mud. The walls are 14 feet high and nearly 6 feet thick, and there are 6 towers built into the walls, both being of the same construction. Inside the fort is the residence of the beg. Below the walls is a fairly large orchard surrounded by a wall of stone and mud rising to a height of about 9½ feet. Close to the fort is the bazar, and beyond it are barracks for soldiers, of whom the Beg is supposed to have 1,000. M. Kosyakoff says there were only 400 when he was there, and the same at Baljuan. Higher up the Panj river, about two-thirds of a mile from the fort of Kala-i-Khum, is another small fort. It is at present empty.
1	SHIB-GOVAT ...	23	...	...	The road follows the Panj river by the right bank. Numerous hamlets are passed. The distance to Shir-Govat, according to the route-map, is 12 miles. At 2 miles before reaching Jar, the Shikai fort of Jori is passed on the left bank of the river, while a hamlet of the same name occupies both banks at this point. Walls of fort towards river 3½ feet high, other sides 9½; thickness all round being 3½ feet, construction similar to that of Kala-i-Khum fort. The ruler of the Shikai province lives inside the fort.
2	JARK ...	24	...	...
3	VALVALIAK (PASS) ...	30	...	...	Distance is according to route-map. The ascent to the pass and descent therefrom are extremely difficult. There are three or four other passes to be surmounted before reaching it. Pack animals can only move with great difficulty.
4	GRING ...	19	...	...	On left bank of Gring stream. The road descends from the mountains. From Gring to Liangar it is along the Ab-i-Naib stream, changing from bank to bank. There are about 25 hamlets in the Dara valley situated along the Ab-i-Naib.
5	LIANGAR ...	10	...	...
6	MUMINABAD ...	24	...	...
7	SANG-HUR ...	17½	...	...
8	PUSHION ...	17½	...	...	A pack road throughout. The Dara and Muminabad valleys are separated by a range called Kuran towards the south and Peri towards the north. The road crosses this; it apparently presents no difficulties. There are as many as 20 hamlets in the valley of Muminabad. They are all situated near springs, which here bubble up in all directions. The district is under an Amlakdar. From Liangar to Muminabad is 18 miles according to the route map.
9	KULAB ...	12	...	...
	Carried over ...	...	177	118	

ROUTE No. 83—concl'd.

FROM KALA-I-KHUM TO KABADIAN *via* KULAB AND KURGAN TUBE—concl'd.

Number of stages.	Names of stages.	DISTANCES.			REMARKS.
		Inter- mediate.	Total.		
		Vershs.	Vershs.	Miles.	
	Brought forward ...	...	177	118	The road is throughout a good one; in the latter part it is along the Ak-Su, and passes the village of Dahana.
8	GULBAGH	17½	...	...	Road at first follows the Ak-Su through a marshy locality, and crosses several channels and arms of the river. It then runs over a plateau and along the foot of the mountains to the Kichi-(Kuchak?) Surkhah stream, which it crosses by a ford. From here it is a mile to Gulbagh. Distance from route map. Three roads strike off from the hamlet of Gulbagh—one north to Baljuan, one south to Yan-Kila, and the third passes on to Kurgan-Tube.
9	TASH-RABAT (springs)	40	...	...	Ascend from the valley of the Kichi-Surkhah, and then over the mountains. The whole road is fit for pack animals, and there are signs of its having been used by carts. At the 22nd mile of this stage (40th from Kabadian according to Kosyakoff) a road strikes off north to Baljuan. Two miles before reaching the springs, the Tash-Rabat pass is passed. It is not steep, but is a bit stony. The whole range here is covered with pistachio wood. The water in the Tash-Rabat spring is brackish, but the nomads use it for drinking and cooking purposes.
10	KURGAN-TUBE ...	46½	...	...	From the spring the road runs through a succession of gorges along a low undulating locality, and descends by a small pass and a gorge to a level, but barren plateau, which it follows for about 3 miles. This ends at about 7 miles from Kurgan-Tube. The next mile is through a dry bed of a ravine, and thence to Kurgan-Tube is through a level valley which is under cultivation. At 4 miles from stage the hamlet of Charbal-Tube stands on both sides of the road, and 3 miles south of it is the hamlet of Khwaja-Bulgan. The ruins of the old fort of Iltā are also passed on the right at a distance of one mile. Between the hamlet of Khwaja-Bulgan and the low-lying mountain spurs, and also to north and south of this hamlet as far as the Tash-Rabat springs, Kirghiz from the Turkestan district nomadize.
					The small town of Kurgan-Tube stands on a canal diverted from the left bank of the Vaksh river, from which it is 1½ miles distant. It is defended by a fort built on a hill about 70 feet high. The fort covers an area of 700 feet by 300. It has no ditch. The walls, which are of mud, are 35 feet high and 4 feet thick at the base. Inside the fort is the residence of the Bek and his followers. The fort commands the road which passes to the east. There is a small bazar in the town, but the trade in it is very inconsiderable.
11	LIAGHMAN ...	23	...	...	The whole road from Kurgan-Tube to Jili-Kul is a very good one, even for carts. Moreover, there is green grass all along it, whilst fuel is procurable in the Vaksh valley. The country is for the most part inhabited by Turkomans, who migrated here about 19 years ago according to Kosyakoff.
12	JILI-KUL ...	17½	...	...	Near this hamlet the Vaksh has to be crossed by a ferry. There is only one small boat (kayak) to carry people and their baggage across. The boat is drawn by horses swimming. The river is about 220 yards wide.
13	KABADIAN ..	36	...	...	The road from the Vaksh to Kabadian is very good, excepting the last ravine met with, during the first ascent from the valley, over which it would not be possible to take guns.
			356½	237½	

Note.—The part of this route from Kulab to Kabadian is also described in routes in Asia, Section III, No. 28 on the authority of Mayell.

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ANDEHOI ...	SAMARKAND ...	Jam, Karshi, and Kerki.	15	260 0	46	73
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ANZOB (VILLAGE OF) ON THE YAGNAB.	DUSHAMBE IN HISSAR	4	67 1	65	100
ATAK WELL ...	KHIVA ...	Aristan-Bel, Kuduk, and Shaikh-Arik.	21	310 2	14	19
B						
BAISUN ...	KABADIAN ...	.....	7	108 1	72	111
BAISUN ...	SHIBABAD ...	.....	3	61 4	71	110
BOKHARA ...	ANDEHOI ...	Kerki ...	16	247 0	25	35
BOKHARA ...	CHABJUI ...	.....	6	75 1	23	33
BOKHARA ...	KAZALINSK ...	.....	20	495 3	6	9
BOKHARA ...	KHIVA (1ST ROUTE) ...	.....	24	326 4	16	24
BOKHARA ...	KHIVA (2ND ROUTE) ...	.....	13	255 5	17	25
BOKHARA ...	MAZAR-I-SHARIF (1ST ROUTE).	Kerki and Kelif ...	23	305 5	26	36
BOKHARA ...	MAZAR-I-SHARIF (2ND ROUTE).	Karshi, Guzar, and Kelif.	19	294 0	27	37
BOKHARA ...	MAZAR-I-SHARIF (3RD ROUTE).	Karshi, Guzar, Shir- abad, and the Chushka-Guzar ferry.	19	342 4	28	40
BOKHARA ...	MAZAR-I-SHARIF (4TH ROUTE).	Karshi, Guzar, and the Patta Hissar ferry.	10	341 1	29	45
BOKHARA ...	PRIMO-ALEXANDROVSK	.....	23	300 4	13	18
BOKHARA ...	SAMARKAND (1ST ROUTE).	By left bank of Zarafshan	10	165 1	21	30
BOKHARA ...	SAMARKAND (2ND ROUTE).	By right bank of Zaraf- shan.	12	170 5	22	32
BUSDALIK ...	KARSHI	5	81 0	32	49

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C						
CHABJUI ...	BOKHARA	6	75 1	23	33
CHABJUI ...	KEREI ...	By right bank of Amu Daria.	11	137 4	24	34
CHABJUI ...	PETRO-ALEXANDROVSK	.....	20	240 0	12	17
D						
DEBBAND ...	KULAB ...	Denan, Hissar, and Baldjuan.	21	269 5½	70	105
DEBBAND ...	SHARSHAUZ ...	Kalta Minar ...	5	93 3	57	88
DEBBAND ...	SHIBABAD ...	Ak-Kurgan (on the Surkhan).	7	89 1	36	56
DEHAU ...	THE PATTA-HISSAR FERRY.	.....	8	97 0	73	112
DEH-I-BALAN (VILLAGE OF) ON THE YAGNAB RIVER.	KAFIRNIHAN ...	.....	6	59 0	66	101
DU-SHAMBE ...	THE VILLAGE OF ANZOB ON THE YAGNAB.	.....	4	57 1	65	100
F						
FAIZABAD (IN HISSAR)	GARM ...	.....	5	91 4	74	113
FAIZABAD (IN BADAHSHAN).	KULAB ...	The Samti crossing ...	6	128 5	81	121
FAIZABAD (IN BADAHSHAN).	MAZAR-I-SHARIF ...	Tashkurgan, Kunduz, and Rustak.	15	203 2	64	125
FAIZABAD (IN BADAHSHAN).	SAMARKAND ...	Hissar and Kulab ...	29	466 7	53	82
FAN ...	PANJKEND ...	Kehtut ...	5	78 0	60	93
FAN ...	THE SOURCE OF THE YAGNAB RIVER.	6 4	80 2 60 2	64	99
FORT No. I KARAKUMCHI.)	PEBOVSK	6	94 4	2	4

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GARM	PAKSHID	The Pakshid pass and down the rivers Goriff and Sor-Bokh.	6	71 1	69	103
GARM	FAIZABAD IN HISSAR	.....	5	91 4	74	113
GARM	KALA-I-KHUM	.....	6	69 2	82	122
GUZAR	JAM	Chirakchi	5	78 5	55	84
GUZAR	KUGI-TANG	Tenga-Khoram and the Ak-Dash pass.	6	70 6	34	81
GUZAR	SHABSHAUZ	.....	4	54 5	56	87
H						
HABIBAT-IMAM	TASHKURGAN	.....	4	110 0	79 Note(a)	110
HISSAR	KABADIAN	.....	7	69 0	75 Note	115
HISSAR	SAMARKAND	.....	13	218 2	52	83
HISSAR	VABZIMINOB	The Mura pass	6	97 1	63	97
J						
JAM	GUZAR	Chirakchi	5	79 5	55	84
JIZAK	KHIVA	.....	33	511 0	16	21
JIZAK	KHOJEND	.....	7	118 5	20	29
K						
KABADIAN	BAISUN	.....	6	98 0	72 (Note)	111
			7	106 1	72	
KABADIAN	HISSAR	.....	7	68 0	75 Note	115
KABADIAN	KALA-I-KHUM	Kulab and Kurgan Tapa.	13	237 6	83	123
KABADIAN	NARAK	.....	7	120 5	76	116
KABADIAN	KUNDUZ	Takhti-Kuva crossing	4	89 1	78	118
KABADIAN	SAMARKAND	.....	17	280 3½	54	83
KABADIAN	TASHKURGAN (KHULM)	The Aiwaj and Khisht-Tapa ferries.	3	63 0	77	117
KABIRNIHAN	DEH-I-BALAN	6	59 0	66	81

From	To	Via.	Stages.	Miles and furlongs.	No. of Route.	Page.
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KALA-I-KHUM ...	KABADIAN ...	Kulab and Kurgan Tube.	13	237 6	83	123
KABAMAKOHI (Fort No. 11).	PEBOVSK	6	04 4	2	4
KARATEGIN ...	THE ZARAFSHAN GLACIER.	Yarkich pass ...	4	53 5	69	104
KARSHI ...	BURDALIK ...	.....	5	81 0	32	49
KARSHI ...	KERKI ...	.....	3	86 5	33	50
KARSHI ...	KATTI-KURGAN ...	.....	7	92 2	30-A.	47
KARSHI ...	KEBMINE ...	.....	6	93 1	30	46
KARSHI ...	KELIF ..	Direct desert route ...	8	117 1	31	48
KARSHI ...	SAMARKAND (1ST ROUTE)	Jam ...	7	101 0	43	69
KARSHI ...	SAMARKAND (2ND ROUTE)	Sari Gul ...	6	97 6	44	70
KARSHI ...	SAMARKAND (3RD ROUTE)	Sharsbauz ...	9	117 6	45	71
KATTI-KURGAN ...	KARSHI ...	.....	7	92 2	30-A.	47
KAZALINSK ...	BOXHABA ...	.....	26	495 3	6	9
KAZALINSK ...	NUKUS ...	.....	23	360 6	3	5
KAZALINSK ...	PETRO-ALEXANDROVSK (1ST ROUTE).	.....	10	330 4	4	6
KAZALINSK ...	PETRO-ALEXANDROVSK (2ND ROUTE).	.....	24	403 2	5	8
KAZALINSK ...	TASHKEND ...	.....	46	620 2	1	1
KELIF ...	KARSHI ...	Direct desert route ...	8	117 1	31	48
KELIF ...	MAZAR-I-SHARIF (1ST ROUTE).	Akcha and Balkh ...	5	89 0	30	66
KELIF ...	MAZAR-I-SHARIF (2ND ROUTE).	Khanabad ...	5	87 4	40	66
KELIF ...	SHIBABAD (1ST ROUTE)	.....	3	50 2	37	60
KELIF ...	SHIBABAD (2ND ROUTE)	Kara-Kamar passage of the Oxus.	3	54 5	38	63
KERKI ...	CHARJUI ...	.....	11	147 4	24	34
KERKI ...	KARSHI ...	.....	3	86 5	33	50
KEBMINE ...	KARSHI ...	.....	6	93 1	30	46
KHIVA ...	BOXHABA (1ST ROUTE)	.....	24	326 4	16	24
KHIVA ...	BOXHABA (2ND ROUTE)	.....	13	255 5	17	25
KHIVA ...	JIZAK ...	.....	33	611 0	15	21
KHIVA ...	PETRO-ALEXANDROVSK	.....	2	40 $\frac{1}{2}$	10	14
KHIVA ...	WELL OF AYAK ...	Aristan-Bel-Kuduk and Shaikh-Arik.	21	310 2	14	19
KHOJEND ...	JIZAK	7	118 5	20	29
KHOJEND ...	TASHKEND	7	02 4	19	28

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KULAB ...	FAIZABAD (IN BADAKHSHAN).	Samti crossing ...	6	128 5	61	121
KULAB ...	KUNDUZ ...	The Sarai (Kunda Guzar crossing).	10	115 7	60	120
KULAB ...	TASHKURGAN ...	.....	11	180 0	80	120
KUGI-TANG ...	GUZAR ...	Tenga-Khoram and the Ak Bash pass.	5	70 6	Note (b). 34	61
KUGI-TANG ...	SHIBABAD ...	.....	3	43 1	35	64
KUNDUZ ...	KABADIAN ...	Takhti-Kuva crossing	4	69 1	78	118
KUNDUZ ...	KULAB ...	The Sarai (Kunda Guzar crossing).	10	115 7	60	120
KUNDUZ ...	KURGAN-TUBE ...	.....	6	89 0	79	119
KURGAN-TUBE ...	KUNDUZ ...	.....	6	89 0	79	119
M						
MAGIAN ...	SAMARKAND ...	Farab and Urgut ...	4	70 6	51	61
MAZAR-I-SHARIF ...	BOKHARA (1ST ROUTE)	Kerki and Kelif ...	22	305 5	28	36
MAZAR-I-SHARIF ...	BOKHARA (2ND ROUTE)	Karshi, Guzar and Kelif.	19	294 0	27	37
MAZAR-I-SHARIF ...	BOKHARA (3RD ROUTE)	Karshi, Guzar, Shirabad, and the Chushka-Guzar ferry.	19	342 4	28	40
MAZAR-I-SHARIF ...	BOKHARA (4TH ROUTE)	Karshi, Guzar, and the Patta-Hissar ferry.	19	341 1	29	45
MAZAR-I-SHARIF ...	FAIZABAD (IN BADAKHSHAN).	Tashkurgan, Kunduz, and Rustak.	15	293 2	64	125
MAZAR-I-SHARIF ...	KELIF (1ST ROUTE) ...	Akcha and Balkh ...	5	69 0	39	65
MAZAR-I-SHARIF ...	KELIF (2ND ROUTE) ...	Khanabad ...	5	67 4	40	66
MAZAR-I-SHARIF ...	PATTA-HISSAR FERRY...	.....	2	37 0	41	67
MAZAR-I-SHARIF ...	SAMARKAND (1ST ROUTE)	Jam, Karshi, and Kelif.	24	291 4	47	74
MAZAR-I-SHARIF ...	SAMARKAND (2ND ROUTE)	Jam, Karshi, Shirabad, and Chushka-Guzar.	20	333 1	48	75
MAZAR-I-SHARIF ...	SAMARKAND (3RD ROUTE).	Sharshauz, Shirabad, and the Patta-Hissar ferry.	15	275 2	49	76
MERTAB-KALA ...	NEKUS	5	72 0	7	10
MIN-BULAK SPRINGS	PETRO-ALEXANDROVSK	8	126 5	11	15

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N						
NARAK ...	KAHADIAN	7	120 5	76	116
NUKUS ...	KAZALINSK	23	380 6	3	5
NUKUS ...	PETRO-ALEXANDROVSK	7	115 6	8	11
NUKUS ...	MERTAR KALA ...	.....	5	72 0	7	10
O						
OBURDOR ...	URA TUBE ...	The Auchi pass ...	3	49 0	62-A	96
P						
PAKSHIF (village of) ...	GARM ...	The Pakshif pass and down the rivers Gorill and Sorbokh.	6	71 1	68	103
PANJEND ...	FAN ...	Kshtut ...	5	78 0	60	93
PANJEND ...	SARI DJUI ...	Maghian and the Hissar range.	7	100 0	59	92
PATTA-HISSAR FERRY	DENAU ...	.....	8	97 0	73	112
PATTA-HISSAR FERRY	MAZAR-I-SHARIF ...	.....	2	37 0	41	67
PATTA-HISSAR FERRY	TASHKURGAN ...	.....	4	26 0	42	68
PEROVSK ...	KARAMAKCHI (FORT No. 11).	.....	6	94 4	2	4
PEROVSK ...	PETRO-ALEXANDROVSK	.....	21	398 6	9	12
PETRO-ALEXANDROVSK	BOKHARA ...	.....	23	300 4	13	18
PETRO-ALEXANDROVSK	CHARJUI ...	.....	20	240 0	12	17
PETRO-ALEXANDROVSK (1ST ROUTE).	KAZALINSK ...	.....	16	330 4	4	6
PETRO-ALEXANDROVSK (2ND ROUTE).	KAZALINSK ...	.....	24	403 2	5	8
PETRO-ALEXANDROVSK	KHIVA ...	.....	2	40 $\frac{1}{2}$	10	14
PETRO-ALEXANDROVSK	MIN-BULAK SPRINGS ...	.....	8	128 5	11	15
PETRO-ALEXANDROVSK	PEROVSK ...	.....	21	398 6	9	12
PETRO-ALEXANDROVSK	NUKUS ...	.....	7	115 6	8	11
S						
SAMARKAND ...	ANDKHOI ...	Jam, Karshi, and Kerki.	15	260 0	46	73
SAMARKAND ...	BOKHARA (1ST ROUTE)...	By left bank of Zarafshan.	10	155 1	21	30
SAMARKAND ...	BOKHARA (2ND ROUTE)	By right bank of Zarafshan.	12	170 5	22	32
SAMARKAND ...	FAIZABAD IN BADAKH- SHAN.	Hissar and Kulab ...	20	466 7	53	62

From	To	Via.	Stages.	Miles and furlongs	No. of Route.	Page.
SAMARKAND	HISSAR	.....	13	218 2	62	82
SAMARKAND	KABADIAN	.....	17	280 3½	64	83
SAMARKAND	KARSHI (1ST ROUTE)...	Jam	7	101 0	43	89
SAMARKAND	KARSHI (2ND ROUTE)...	Sari-Gul	6	97 6	44	70
SAMARKAND	KARSHI (3RD ROUTE)...	Sharshauz	9	117 6	46	71
SAMARKAND	MAGIAN	Farab and Urgut	4	70 6	61	81
SAMARKAND	MAZAR-I-SHARIF (1ST ROUTE).	Jam, Karshi, and Kelif	24	291 4	47	74
SAMARKAND	MAZAR-I-SHARIF (2ND ROUTE).	Jam, Karshi, Shirabad, and Chushka-Guzar.	20	333 1	48	75
SAMARKAND	MAZAR-I-SHARIF (3RD ROUTE).	Sharshauz, Shirabad, and the Patta-Hissar ferry.	15	275 2	49	76
SAMARKAND	TASHKEND	.....	13	187 3	18	26
SAMARKAND	THE ZARAFSHAN GLACIER.	Up the Zarafshan Valley	10	202 4	60	77
SARI-JUI	SHARSHAUZ	Tashkurgan	8	109 6	58	89
SARI-JUI	PANJIKEND	Magian and the Hissar range.	...	100 0	59	92
SHARSHAUZ	DERBAND	Kalta-Minar	5	93 3	57	89
SHARSHAUZ	GUZAB	.....	4	54 5	56	87
SHARSHAUZ	SARI-JUI	Tashkurgan	8	109 6	58	89
SHIBARGAN	AKCHA	.....	2	30 0	39 Note.	65
SHIBARGAN	ANDKHOI	.....	3	39 4	25 Note.	35
SHIBADAD	DEBBAND	Via Ak-Kurgan (on the Surkhan).	7	89 1	36	58
SHIBABAD	BAISUN	.....	3	61 4	71	110
SHIBABAD	KELIF (1ST ROUTE)	.....	3	60 2	37	60
SHIBABAD	KELIF (2ND ROUTE)	Kara-Kamar passage of the Oxus.	3	64 5	38	63
SHIBABAD	KUGI-TANG	.....	3	43 1	36	54
T						
TASHKEND	KAZALINSK	.....	46	630 2	1	1
TASHKEND	KHOJEND	.....	7	92 4	19	28
TASHKEND	SAMARKAND	.....	13	187 3	18	24
TASHKURGAN	KABADIAN	The Aiwanj and Khisht Tapa ferries.	3	63 0	77	117
TASHKURGAN	PATTA-HISSAR FERRY	.....	4	26 0	42	69

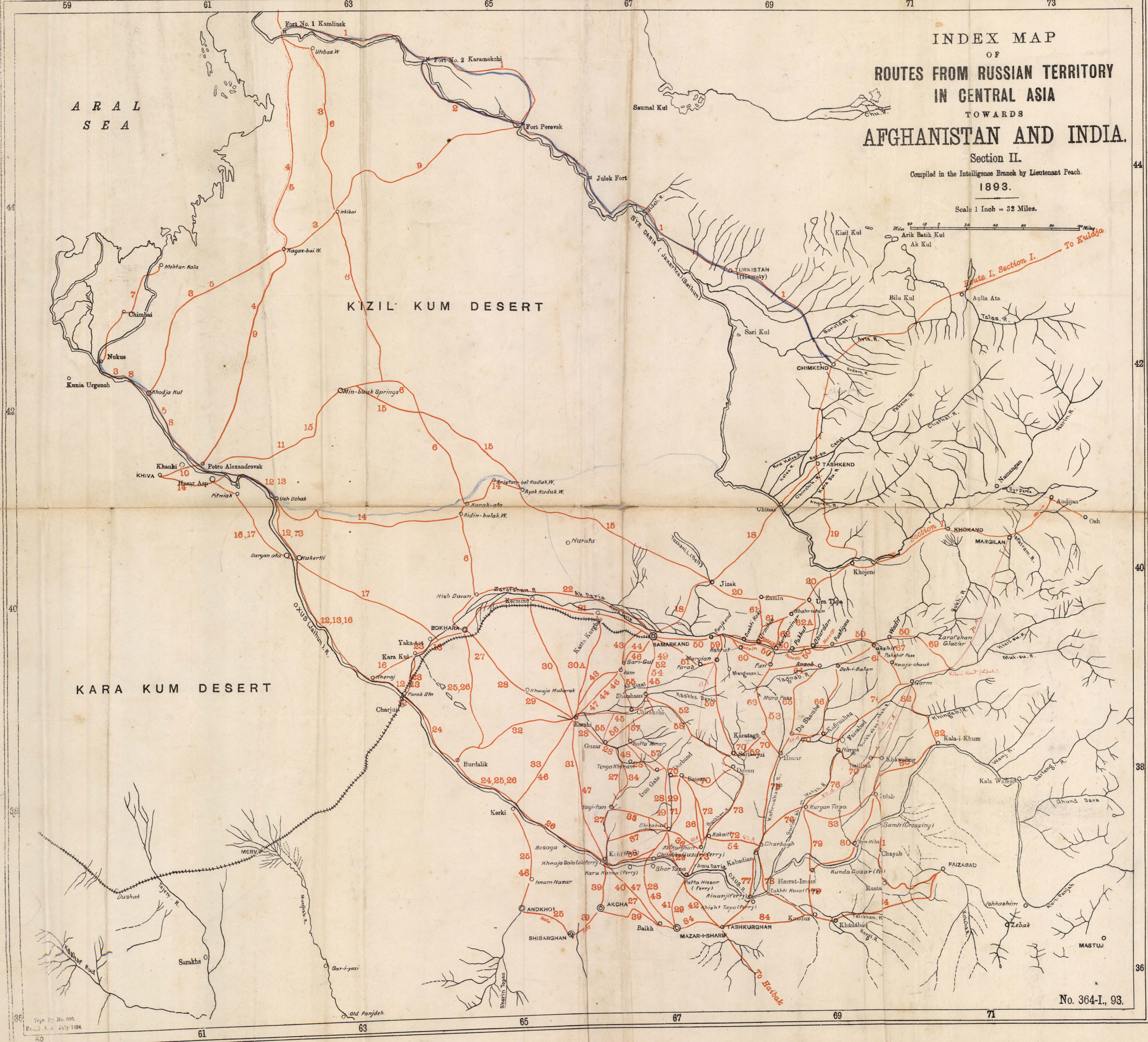
From	To	Vid.	Stages.	Miles and furlongs.	No. of Route.	Page.
TASHKURGAN ...	HAZRAT IMAM ...	.....	4	110 0	79 Note (a).	119
TASHKURGAN ...	KULAB ...	.....	11	100 0	80 Note (b).	120
U						
URA-TUBE ...	OBURDON ...	The Auchi ...	3	49 0	62-A	96
URA-TUBE ...	URMITAN IN THE ZARAFSHAN VALLEY.	The Kum Bel pass ...	2	56 0	61	95
URA-TUBE ...	VARZIMINOR IN THE ZARAFSHAN VALLEY.	The Hishkat pass ...	3	61 0	62	96
URMITAN ...	URA-TUBE ...	.....	2	56 0	61	95
URMITAN ...	ZAMIN ...	.....	3	43 0	61	95
V						
VARZIMINOR ...	HISSAR ...	The Mura pass ...	6	97 1	63	97
VARZIMINOR ...	URA-TUBE ...	Hishkat pass ...	3	61 0	62	96
W						
WADIF (village of) ...	KHWAJA CHAUK ...	.....	5	34 6	67	102
Y						
YAGNAB RIVER (SOURCE OF).	FAN ...	.....	{ 6	80 2	64	99
			{ 4	60 2	64	
Z						
ZAMIN ...	URMITAN ...	.....	3	43 0	61	95
ZARAFSHAN GLACIER	KARATGIN ...	Yorkich Pass ...	4	53 5	69	104
ZARAFSHAN GLACIER	SAMABRAND ...	Down the Zarafshan Valley.	10	202 4	50	77

INDEX MAP
OF
ROUTES FROM RUSSIAN TERRITORY
IN CENTRAL ASIA
TOWARDS
AFGHANISTAN AND INDIA.

Section II.
Compiled in the Intelligence Branch by Lieutenant Peach.
1893.

Scale 1 Inch = 32 Miles.

Miles 0 10 20 30 40 50 60
Arik Batik Kul
Ak Kul
Route I, Section I. To Kuldja



ARAL
SEA

KIZIL KUM DESERT

KARA KUM DESERT

