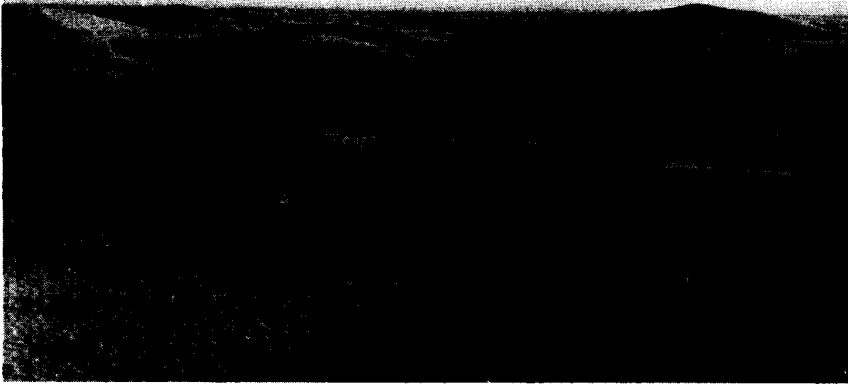


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**KARA KUM DESERT.** The Main Turkmenian Canal will cross the arid sands, transforming this barren, sun-scorched wasteland into fertile fields.

# Conquering the Kara Kum

By Victor Yefanov

**T**HE Amu Darya River and the city of Krasnovodsk are, respectively, the starting and terminal points of the Main Turkmenian Canal.

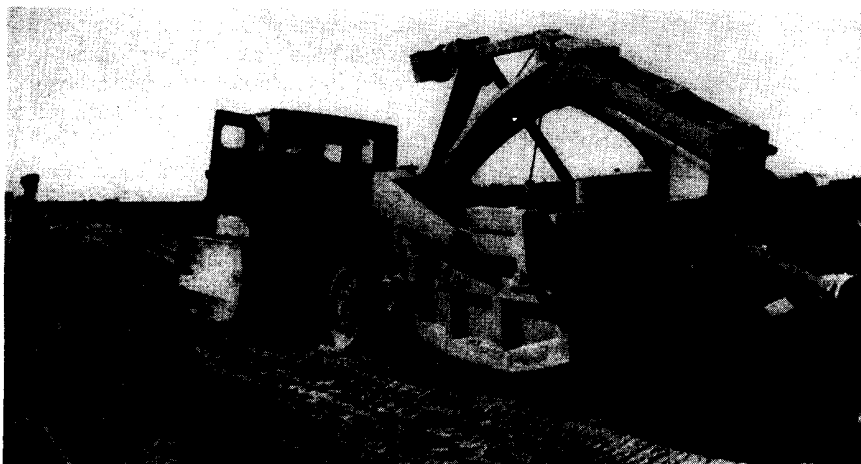
The Amu Darya, one of the largest rivers of the Soviet Union, is a huge waterway of Central Asia and a source of life for the Soviet East. It irrigates thousands of acres along its course.

Krasnovodsk is a large port on the eastern coast of the Caspian Sea and the

economic, administrative and cultural center of the coastal area of Turkmenia.

A vast expanse separates the Amu Darya from Krasnovodsk. By the shortest route, they are more than 620 miles apart, with the waterless, sun-scorched Kara Kum Desert between them.

It is an immense task to bring water from the Amu Darya to the Caspian coast in order to irrigate and provide a water supply for the southern districts



**ROAD CONSTRUCTION.** A wide network of roads is being built to enable the canal builders to bring up supplies easily and quickly.

of the West Turkmenian-Caspian plain, the lands along the lower reaches of the Amu Darya, and the western part of the Kara Kum. And yet Soviet people have come to the desert to accomplish this.

Every day brings more new victories in the battle to subdue the wastes of the Kara Kum.

Much of the preparatory work has already been carried out. Whole building sectors have been set up at Takhia Tash, Khojeili, Kasanjik and Lake Yakhhan. Equipped with advanced knowledge and modern technical facilities, an army of scientists and builders is marching upon the Kara Kum from Takhia Tash in the north and from Krasnovodsk and Kasanjik in the south.

Building operations at the development will proceed on a still wider front this year and will exceed many times over what was accomplished in 1951.

The building workers will begin excavation of the canal proper and will start the construction of the Takhia Tash hydropower project with its dam, silt-settling installations, and by-pass, shipping and irrigation canals. New building sectors will spring up in the desert.

The building workers have pledged themselves to complete their 1952 program ahead of schedule, by November 7, 1952, the 35th anniversary of the Great October Socialist Revolution. A powerful wave of socialist emulation for the fulfillment of this pledge of honor has swept the development and is drawing many thousands of workers, engineers and scientists into it.

The designers are hastening to finish their work, the scientists are completing the study of the materials obtained by the preliminary surveying expeditions, the transport people are diligently carrying out their jobs. The working days of the development's personnel are filled with thousands of large and small tasks, and every hour is precious.

At the outset, two great needs faced the builders of the canal: water and electric power.

They needed a whole river of water to "feed" their immense fleet of earth-moving machines. To procure it was a complex engineering problem. Before excavation of the canal could begin, it was necessary to have water many miles ahead, far into the desert; Soviet engineers and scientists have successfully solved this problem.

The need for electricity was enormous. It was needed for many things besides illumination. Tens of thousands of kilowatts were required to furnish power for machines and equipment—excavators, suction dredges, conveyors—all the mighty technical facilities which would be pressed into the offensive on the Kara Kum. This problem, too, is being solved. Power facilities sufficient for all the project's needs will be set up this year. And **these**, let us note, will be only auxiliary **installations**, not the three permanent **hydroelectric** stations to be erected in connection with the canal project.

Even this year, water and electricity will make possible the construction of new factories: brick kilns, a stone-crushing plant, cement works, a mechanical repair factory, a lumber mill and many other enterprises. Excavation will begin on the foundation trench for the dam and work will continue on expanding the city of Takhia Tash.

People newly arrived at Takhia Tash are amazed by the abundance of machinery and equipment. One can see from afar a powerful portal crane recently set up on the bank of the Amu Darya. A second portal crane is now being mounted. These machines will do the work of thousands of stevedores. This spring, the unloading of steamers and barges, which are bringing thousands of tons of cargo in an endless stream to Takhia Tash, will be completely mechanized. A powerful cable crane connecting the two banks of the river is being set up. The building workers will also receive a dependable rapid transport installation for freight and passenger traffic.

The construction of a railway line has been completed. On February 29 the first train with freight for the project pulled into Takhia Tash station. The line which links Takhia Tash with Urgench stretches for 75 miles. In some sections it runs through the sands of the Kara Kum.

A visit to the office of the development's chief engineer, Vissarion Eristov, a Stalin Prize winner, is a memorable experience. Time and again the conversation is interrupted by the ringing of the telephone. There are calls from Moscow, Tashkent, Ashkhabad and other cities. Pile drivers have been shipped from the Urals; automobile plants in Gorky, Minsk and Moscow are sending



**HOUSEBUILDING AT TAKHIA TASH.** Construction workers have moved into the area to put up houses for the members of the project's permanent staff.

trucks, dump trucks, passenger cars; the Construction Institute of the Uzbek Academy of Sciences has completed a laboratory analysis of the Khojeili clay; the Saltykov-Shchedrin Public Library in Leningrad has finished compiling libraries for the various sectors of the development; navigation has begun on the Amu Darya; the first steamer has left Chardzhou, carrying cargo for Takhia Tash. Thousands of ties link the great construction project of communism on the Amu Darya, the Main Turkmenian Canal, with the rest of the country.

On the main street of Nukus, the capital of the Kara-Kalpak Autonomous Soviet Socialist Republic, the attention of the pedestrians is drawn to a huge, colorful panel, a chart of the Main Turkmenian Canal development. A meandering turquoise line runs through the desert of the Kara Kum. This is the course

of the future canal. Green forest belts stretch along the canal. Light emerald expanses represent cotton plantations, pastures, orchards, vineyards. From the main canal, north and east, south and west, runs a distributive network of irrigation canals, aqueducts and water supply lines. The sites of future villages, towns and state farms stand out vividly. They will be the new economic and cultural centers. Crisscrossing it all are black lines representing new highways and railroads. A huge dam, cutting across the Amu Darya, rises at Takhia Tash. From there, a mesh of high-tension electric power lines spreads out in all directions. This is a chart of the communist tomorrow of the peoples of the Soviet East. It is for this tomorrow that the Soviet people are building the Main Turkmenian Canal.



**SURVEYING THE AMU DARYA.** Complete information about the river's behavior in all seasons must be gathered. Hydrologists measure the depth of winter ice.