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USSR SCIENTIFIC AFFAIRS

KIRGIZ IRRIGATION CONSTRUCTION--Naryn, 16 October--KIRTAG--Irrigation workers have started work on the construction of a big water scoop junction where the new Chon-Baktygul Irrigation canal starts from the river Terek. After it has been commissioned, the junction will insure the irrigation of around 1,000 hectares of land in Aktalinskiy Rayon. Work is also underway on laying two irrigation canals in the Kulanakskaya Valley which will resurrect 500 formerly arid hectares of the Togolok Moldo Kolkhoz. Preparations have started for the construction of a 15-kilometer canal and siphon through the river Kurtks in the Ak-Sayskaya Valley. It will help to irrigate 10,000 hectares of pasture land and to establish irrigated meadows and crop pastures. [Frunze SOVETSKAYA KIRGIZIYA in Russian 17 Oct 72 p 2 L]

NEW RADIO TELESCOPE PLANNED--Irkutsk, 12 October--A unique solar radio telescope has been designed by scientists at the Sibizmir Institute radio astronomy laboratory in Irkutsk and will be constructed by 128 antennas which will all follow the sun in synchrony. The solar radio telescope will make it possible to obtain a complete map of the sun's radio picture. This will be the first such radio telescope. [Text] [Moscow SELSKAYA ZHIZN in Russian 13 Oct 72 L]

ALL-UNION THERAPEUTISTS PLENUM--A plenum of the USSR Therapists Society began its work in Tbilisi. The plenum will discuss prevention and treatment of chronic bronchitis and chronic pneumonia. Leading scientists and medical workers from Moscow, Leningrad, Kiev, Tbilisi and other Soviet cities are taking part in the work of the plenum. The plenum will continue its work on 21 October. [Tbilisi Domestic Service in Russian 1430 GMT 20 Oct 72 M]

LENINGRAD PARTY MEETINGS--LENTASS--Party committee plenums and party aktiv meeting were held yesterday to discuss the problems of completing fall work, fulfilling pledges to the state in an exemplary manner, preparing livestock for the winter, and getting ready for the new agricultural year. Resolutions were passed determining the tasks of the party organizations and urgent practical measures for the successful completion of the agricultural year and preparation for 1973. The following people took part in the work of the party committee plenums and party aktiv meeting and delivered speeches at them. In the Leningrad Vyborgskiy Rayon--B.I. Aristov, Leningrad Gorkom first secretary; in Gatchina--A.U. Shibalov, Leningrad Oblisopolkom chairman; in Vasileostrovskiy Rayon--N.V. Merenishchev, Leningrad Gorkom secretary, and in Zhdanovskiy Rayon--B.S. Andreyev, Leningrad Gorkom secretary. [Leningrad LENINGRADSKAYA PRAVDA in Russian 18 Oct 72 p 1 L]

KOMSOMOL-NAVY MEETING--LENTASS--A joint ceremonial meeting of the Leningrad Komsomol Aktiv and the Leningrad naval base devoted to the 50th anniversary of komsomol patronage of the navy was held yesterday in the komsomol theater. The meeting was attended by Vice Adm V.M. Leonenkov, and B.K. Pugo, komsomol central committee secretary, delivered a speech. Also present were N.V. Merenishchev, Leningrad Gorkom secretary, A.P. Boykova, Leningrad Gorispolkom Deputy chairman, V.N. Smirnov, Obkom section chief, B.H. Taukin, gorkom section chief, and V.V. Leonov, oblast trade union council secretary. [Leningrad LENINGRADSKAYA PRAVDA in Russian 17 Oct 72 p 1 L]

Another example--Thousands of people today are working on designing large industrial and dwelling complexes. But it is tremendously difficult to produce a design with a three-dimensional mock-up. And then its flaws begin to appear. But the "collaboration" of electronic computers and holographic methods makes it possible not only to shorten to minutes the time of determining the optimal configuration of buildings but also to demonstrate in space an entire building and its location in the general plan of streets, squares, and the city.

A propos of this, holography turns a completely new page in the development of electronic computers themselves. It makes it possible to produce a computer memory with a density of up to 100 million units of information per square centimeter. It will be possible to put the entire contents of any multivolume work on a plate the size of a postage stamp.

Such is the outline characterizing the uses of holography. It is already possible to foresee the enormous potentialities of this still young science.

BRIEFS

MARITIME RESEARCH--A research ship of the Ukrainian Academy of Sciences has left for a coastal trip along the shores of the Crimea and the Caucasus. Scientists of the Odessa branch of the Economics Institute of the Ukrainian Academy of Sciences and of Odessa branch of the Institute of Maritime Biology of the academy will carry out comprehensive research in the coastal regions of the Black Sea, including hydraulic, geological, and biological research in coastal waters to a depth of 200 meters. [Kiev Domestic Service in Ukrainian 1715 GMT 3 Oct 72 A]

SPITZBERGEN EXPEDITION'S RETURN--The Soviet Institute of Arctic Geology's 11th annual field expedition has returned to Leningrad from Spitzbergen. The expedition studied the geological structure of the archipelago and collected rock samples and fauna and flora specimens for subsequent laboratory study. Members of the expedition worked in contact with Norwegian Polar Institute scientists on West Spitzbergen island. [Leningrad LENINGRADSKAYA PRAVDA in Russian 30 Sep 72 p 4 L]

SCIENTIFIC MEETING IN MAGADAN--A large group of scientists arrived today in Magadan to attend a meeting of the Presidium of the Far Eastern Scientific Center which will open tomorrow in the Northeastern Complex Scientific Research Institute. The meeting will be attended by Kapitsa, Presidium chairman of the Far Eastern Scientific Center and corresponding member of the USSR Academy of Sciences. [Text] [Magadan Domestic Service in Russian 0700 GMT 2 Oct 72 B]

SEISMIC STABILITY CONFERENCE--An all-union scientific conference devoted to problems of seismic stability is being held in Tbilisi. [Baku Domestic Service in Russian 0720 GMT 28 Sep 72 M]

SOLAR RADIO TELESCOPE--Irkutsk--The USSR Academy of Sciences Siberian branch institute of earth magnetism, ionosphere, and distribution of radio waves has finished work on a plan for a unique solar radio telescope. It is a cruciform instrument with 128 antennas arranged in north-south and east-west directions. The length of each of the arms is over 600 meters. The diameter of the mirrors is 2.5 meters. All the antennas will follow the sun in a synchronized fashion. The radio telescope will be constructed on a site at Badara, 220 kilometers from Irkutsk. [Text] [Moscow TRUD in Russian 29 Sep 72 p 2 L]

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