"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.M., starshiy nauchnyy sotrudnik (Moskva)

Sanitary control over the use of toxic chmicals in treating food plants. Fel'd. i akush. 22 no.9:47-49 S'57 (MIRA 11:10)

1. Nauchno-issledovatel'skiy institut gigiyeny i sanitarii imeni Erismana.

(AGRICULTURAL CHEMICALS)
(FARM PRODUCE)

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EXCERPTA MEDICA Sec. 17 Vol. 3/10 Public Health Oct. 57

3239. RUSIN N. M. F.F.Erisman's Inst. of Sanit. and Hyg., Moscow. *Five-year experiment on hygienic evaluation of agricultural food crops treated with insecticides (Russian text) Tezisy dokladov XIII s'ezda gigienistov, epidemiologov, mikrobiologov i infektsionistov, Moskva, 1956, Kniga 1 (450-454)

In a special scheme operated from 1951 to 1955, a study was made of food plants treated with the insecticides DDT, hexachlorocyclohexane (HCC), 'cartox' (a mixture of carbon dioxide and ethylene oxide), parathion, 'carbophos' and 'metaphos'. It was found that DDT and HCC, even in small amounts, impart an unpleasant taste and smell to the product. It is recommended that products with this taste or smell be rejected, as it was shown that bread made from such flour still had toxic properties. Products from plants that had been treated with DDT or HCC during growth were not toxic to animals. The use of 'cartox' (a mixture of ethylene oxide and carbon dioxide) for treatment of edible grain is permissible provided there is no admixture of arsenic or phosphorus hydrides or other malodorous substances. 'Cartox' may be used for dry grain only (up to 14% of moisture); when it was used in this way, no trace of ethylene oxide could be found in a 500 g. sample of wheat. The use of parathion, 'carbophos' (paraoxon?) and 'metaphos' for protection of crops is permissible if the product does not acquire an unpleasant taste or smell and the residual amount of the insecticide is not higher than 5 mg./kg. of the product. A scheme is proposed for the study of organoleptic and toxic properties of food products treated with organic insecticides.

Popov - Moscow

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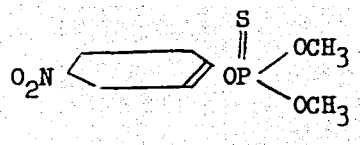
Rusin, N.M.

"Hygienic Evaluation of Food Crops Treated With Metaphos," by the Senior Scientific Collaborator N. M. Rusin and Scientific Collaborators G. P. Andronova and O. I. Vasil'yeva of the Scientific-Research Sanitary Institute imeni Erisman, Gigiyena i Sanitariya, Moscow, Vol 22, No 1, Jan 57, pp 46-50

The article reports the results of experiments conducted on mice, rats, and rabbits to determine the effect of food crops treated with metaphos on the organism. Metaphos is a new insecticide obtained from the Scientific-Research Institute of Fertilizers and Insectofungicides (NIUIF). When chemically pure it is a dimethyl-4-nitrophenylthiophosphate, with the following structural formula:



It is a crystalline substance with a melting point of 36 degrees. Technical metaphos, when used as in insecticide, is a brown oily liquid with an unpleasant garlic odor. It is practically insoluble in water, but is readily soluble in organic solvents. While its insecticidal properties are similar to those of thiophos, it is not nearly as toxic as the latter.

Sum. 1522

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RUSIN, N. M.

The experiments established: (1) Metaphos is toxic to warm-blooded animals. In doses of 5 milligrams per kilogram of body weight it disturbs the conditioned reflex activity of the animals. It does not possess, however, cumulative properties. (2) It is easily hydrolyzed by alkalies, plant tissues, and other substances when its toxicity is lost. (3) Food crops treated with metaphos during their growth period and containing not more than 7 milligrams of residue chemical 3 days after treatment are not toxic to animals; no change in taste or odor as compared with control crops is noted. (4) Food crops treated with quantities of metaphos in excess of those normally used in agriculture are not toxic to animals 2 weeks after the treatment is completed, although they may retain a bitter taste. (5) Hygienically there is no objection to the use of metaphos as an insecticide, providing the residue chemical is not in excess of 5 milligrams per kilogram of food crops, and no bitter raste or odor is retained. (U)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

1793. HYGIENIC ASSESSMENT OF FOOD CULTURES GROWN ON SOIL TREATED WITH HEXACHLORANE (Russian text) - Rusin N.M., Andronova G.P., Sapronova I.N. and Vasiliev O.I. - GIG. I SAN. 1958, 6 (32-36) Tables 5

The authors found that potatoes and wheat grown in soil treated before sowing with hexachlorane (benzene hexachloride) dust (up to 400 kg./ha.) whether or not enriched with γ-iosmer, containing the so-called residual hexachlorane (organic substances with chlorine, which may be extracted with ethyl ether), are not toxic for animals. As a rule potatoes acquire a disagreeable taste which renders them unsuitable for consumption. However, wheat containing about 10 times as much residual hexachlorane, does not possess any unpleasant taste. Therefore, the first 3-4 yr. after treatment of the soil with hexachlorane, only cereals should be grown; later, potatoes can be cultivated.

Moscow Sci Res Inst Sanitary & Hygiene im F.F. ERISMAN Min Health RSFSR

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N. M.

"Five-year experience of work on hygienic evaluation of agricultural food crops treated with insecticides."

report submitted at the 13th All-Union Congress of Hygienists, Epidemologists, and Infectionists, 1959.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.M., starshiy nauchnyy sotrudnik; ANDRONOVA, G.P., kand. med. nauk; AKSYUK, I.N., nauchnyy sotrudnik

Hygienic evaluation of food crops treated with acetylurea [with summary in English]. Gig. i san. 24 no.2:47-50 F '59. (MIRA 12:3)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta sanitarii i gigiyeny imeni F.F. Erismana Ministerstva zdravookhraneniya RSFSR.

(PHOSPHATES
carbamoylmethylphosphorodithioic acid O,O-diethyl ester-treated crops, hyg. evaluation (Rus))
(FOOD
same)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.M., kand. biolog. nauk; ANDRONOVA, G.P., kand. med. nauk; AKSYUK, I.N., nauchnyy sotrudnik

Hygienic aspects of agricultural products treated with dithiophos. Gig. i san. 24 no.5:31-34 My '59. (MIRA 12:7)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta sanitarii i gigiyeny imeni F. F. Erismana Ministerstva zdravookhraneniya RSFSR.

(PHOSPHATES, effects,
tetraethyl dithiopyrophosphate, insecticidal eff. & eff. of feeding of sprayed cereals on animals (Rus))

(CEREALS,
tetraethyl dithiopyrophosphate treated, eff. on animals (Rus))

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.N. starshiy nauchnyy sotrudnik

Hygienic evaluation of new types of food packages, utensils, covers, and other articles made of synthetic materials. Gig. i san. 24 no.7:42-44 Jl '59. (MIRA 12:9)

(FOOD
plastic food packages, utensils, covers & other articles, hyg. evaluation (Rus))

(PLASTICS
same)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, Nikolay Mikhaylovich; GNOYEVAYA, Vera Leont'yevna; BONDAREV, G.I., red.; SENCHILO, K.K., tekhn. red.

[Some problems in food hygiene in rural areas] Nekotorye voprosy gigieny pitaniia v sel'skoi mestnosti. Moskva, Gos. izd-vo med. lit-ry Medgiz, 1961. 146 p. (MIRA 14:7)
(RESTAURANTS, LUNCHROOMS, ETC.—SANTITATION)
(FOOD—ANALYSIS) (FOOD POISONING)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.N.; ANDRONOVA, G.P.

Organoleptic properties of food products following treatment with DDT and hexachlorane. Gig. sanit., Moskva no. 2:27-32 Feb 1953. (CIML 24:2)

1. Of the Department of Food Hygiene of the Sanitary Scientific-Research Institute imeni Erisman.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

PARNOV, Yeremey Iudovich; YEMTSEV Mikhail Tikhonovich; RUSIN, N.P., doktor geogr. nauk, otv. red.; RUSAKOVA, G.Ya., red.

[A great assault on nature is ahead; on nature and climate and possible ways of changing them] Vperedi velikii shturm prirody; o prirode i klimate i vozmozhnykh putiakh ikh izmeneniia. Leningrad, Gidrometeoizdat, 1964. 138 p. (MIRA 18:1)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.; STROKINA, L.A.; BRAGINSKAYA, L.L.

Total radiation and the radiation balance of Antarctica. (MIRA 17:9)
Trudy GGO no.160:60-73 '64.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.

TEMPERATURE

AMS

551.524.1:551.508.26

3.5-100

Rusin, N.P., Izmerenie vertikal'nogo gradienta temperatury v prizemnom sloe vozdukha dlia tselei prikladnoi meteorologii i klimatologii. (Measurement of the vertical gradient of temperature of the air near the ground for use in applied meteorology and climatology.) Leningrad, Glavnaia Geofizicheskaia Observatoriia, Trudy, No. 25(87):20-26, 1951. 4 figs., table. DLC- Gradient air temperatures between 20 and 150 cm were measured by means of mecurial thermometers alone, by aspirated thermometers, thermocouples and resistance thermometers attached to a pole at the specified levels. The temperature gradients obtained by these different instruments are compared. The gradients obtained by means of mercurial thermometers, aspirated thermometers and resistance thermometers were very similar: those obtained with themocouples differed considerably. Gradients obtained with a thermograph were not reliable for short periods. Subject Headings: 1. Vertical temperature gradient 2. Micrometeorology 3. Temperature instruments. - I.L.D.

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RUSIN, N. P.

4
8

551.571.3:551.524.3:551.501.4

5.7-149

Rusin, N. P., K voprosu metodiki obrabotki nabliudenii nad vlazhnost'iu vozdukha. [On the methodology of air humidity observations.] *Leningrad. Glavnaia Geofizicheskaia Observatoriia, Trudy* No 25(87) 78-82, 1951. 4 tables, 2 refs. DLC—A study of the effect [illegible] measured with an accuracy of 0.5°C upon the mean monthly relative and absolute [illegible] mean relative humidity values calculated on the basis of actual and rounded off data did not differ by more than ±1%. On the other hand the maximum deviation of individual values of absolute and of relative humidity calculated [illegible] basis of rounded off figures may differ considerably from the magnitudes of relative and [illegible] calculated on the basis of actual figures. The precision of these values is [illegible] of the physics of the layer near the ground. *Subject Headings* 1. Humidity measurement 2. Temperature measurement. *I. L. D.*

Geophys

1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

NOVIKOV, A.I.; RUSIN, N.P., red.; BRAYNINA, M.I., tekhn.red.

[Meteorological and aerological apparatus; repair and adjustment] Meteorologicheskie i aerologicheskie pribory; remont i regulirovka. Pod red. N.P.Rusina. Leningrad, Gidrometeor.izd-vo, 1952. 94 p. (MIRA 12:7)
(Meteorological instruments)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N. P.

551.511:551.524:551.525

Metodika nabliudenii nad teplovym balansom podstilaiushchei poverkhnosti

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.

Physical and meteorological conditions of hot dry winds in agricultural fields. Trudy GGO no.53:85-91 '55. (MLRA 9:8)
(Winds) (Crops and climate)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

Rusin, N.P.

RUDNEV, G.V.

"Climate of agricultural fields." N.P. Rusin. Reviewed by G.V. Rudnev. Meteor.i gidrol. no.9:58-59 S '56. (MLRA 9:11)
(Crops and climate) (Rusin, N.P.)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N. P.

49-10-9/10

AUTHOR: Laykhtman, D. L.

TITLE: Conference of the Chief Geophysics Observatory relating to meteorology of the near-ground layer of the atmosphere. (Konferentsiya Glavnoy Geofizicheskoy Observatorii po Meteorologii prizemnogo sloya vozdukha).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1957, No.10, pp.1273-1274 (USSR)

ABSTRACT: This conference was held between May 7 and 10, 1956 at the Chief Geophysics Observatory (Glavnoy Geofizicheskiy Observatorii). The conference was attended by numerous representatives of research institutes. The opening address was presented by the Director of the Chief Geophysics Observatory, M. I. Budyko and fourteen papers were read relating to differing problems. Most of the papers related to results of recent investigations of the near-ground layer of the atmosphere. The paper "Meteorological processes in the near-ground layer of the atmosphere in the Antarctic" by N. P. Rusin contained results of investigations of the near-ground layer carried out by the Soviet Antarctic Expedition in 1956; of great scientific interest are the data on the thermal balance of the active surface of the Antarctic and on the wind regime of the lower layer of the atmosphere. Due to

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49-10-9/10

Conference of the Chief Geophysics Observatory relating to meteorology of the near-ground layer of the atmosphere.

features of the relief of the Antarctic in the region where the expedition operated, they succeeded in obtaining important data on the structure of winds above slopes. The paper of D. L. Layktman was devoted to results of investigation of the near-ground layer of the atmosphere of the Central Arctic. The uniformity of the physical properties of the underlying surface and absence of daily variations of the short-wave radiation bring about important features in the meteorological conditions of the lower layers of the Arctic. The author gave quantitative data on the characteristics composing the thermal balance of the active surface and their variations during the year, he gave an evaluation of the influence of the ocean waters on the meteorological regime of the Arctic and also results of theoretical conclusions of the meteorological characteristics of the boundary layer of the atmosphere of the Arctic. The paper of P.A.Vorontsov contained much material on observations of the temperature and the wind regimes of the boundary layer of the atmosphere in various geographical regions of the U.S.S.R. The presented material is the result of micro-aerological

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49-10-9/10

Conference of the Chief Geophysics Observatory relating to meteorology of the near-ground layer of the atmosphere.

measurements which were carried out by various expeditions under the leadership of the author. Of considerable interest are the results of analysis of experimental data and the important characteristics of the boundary layer of the atmosphere determined from these data, such as, its height, coefficient of turbulence, etc. B.A.Ayzenshtat and M. V. Zuyev described the results of investigation of the micro-climate and of the thermal balance of the desert and of the Pamir. In their measurements they used apparatus of original design. Particularly interesting are the data on the influence of the vegetation on the components of the thermal balance. The authors reported on the results of new investigations of local winds revealed in the region where the expedition worked. I. A. Gol'tsberg gave the results of investigations of the meteorological conditions of the near-ground layer of the atmosphere in regions of cultivation of virgin lands. The authors studied the conditions of formation of intensive inversions during the night above the "fine" relief and established the presence of slope winds under such conditions and he gave relevant quantitative data.

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49-10-9/10

Conference of the Chief Geophysics Observatory relating to meteorology of the near-ground layer of the atmosphere.

A. P. Gal'tsov devoted his paper to the technique of investigation of near-ground climate forming processes based on observations at one point. The author described a very interesting and original method of investigation and also the results of much statistical work. The paper of Corresponding Member of the Ac.Sc. A. M. Obukhov on the relations governing the micro-structure of the temperature and the wind in the near-ground layer of the atmosphere excited great interest. He described the technique, the results of observations and the analysis of the micro-structure of the fields of temperature and wind. In the structural functions given by the author, the respective coefficients are determined on the basis of experimental data. Certain data were obtained on the mechanism of pulsations of meteorological elements. V.N. Kucherov and M.S. Sterizat devoted their paper to the technique of investigation of the boundary layer of the atmosphere. The features of distribution of meteorological elements and the intensive turbulence in the lower layers of the atmosphere impose certain requirements on the apparatus for studying this layer. The authors gave a review of the existing

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49-10-9/10

Conference of the Chief Geophysics Observatory relating to meteorology of the near-ground layer of the atmosphere.

technique and they analysed in detail new apparatus developed in recent years. The paper of A.G. Samoylenko was devoted to determining the components of the thermal balance above water reservoirs. A considerable part of the presented papers related to applied problems. The paper of M. I. Budyko was devoted to calculation techniques, to the geographical distribution of the temperature of the active surface and its bioclimatic meaning. F.F. Davitaya dealt with the very important practical problem of taking into consideration micro-climatic features in distributing the plantation of individual crops; the original considerations of the author were illustrated by a number of concrete examples. M. Ye. Berlyand devoted his paper to the technique of local forecasting; he gave an analysis of the problem and also the solution for a number of concrete cases and some results relating to the methods used. M. P. Timofeyev dealt with the methods of calculation of the evaporation from small water reservoirs based on modern meteorological conceptions relating to the lower layers of the atmosphere; the author reviewed work in this field and also his own original investigations.

Card 5/6

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

49-10-9/10

Conference of the Chief Geophysics Observatory relating to meteorology of the near-ground layer of the atmosphere.

V. Ya. Nikandrov considered the physical relations governing the formation and the dispersion of clouds; he reported a number of new and important results. The conference showed that a new branch of meteorology, the meteorology of the lower layers of the atmosphere is being developed successfully in the Soviet Union. During a relatively short period interesting scientific and practical results were obtained in this field. The discussion has shown the great prospects involved in the practical utilisation of these results in various branches of the national economy.

N.B. (This is a complete translation).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

Rusin, N.P.

STRUZER, L.R.; RUSIN, N.P.

Comparison of various methods for the determination of evaporation from agricultural fields. Trudy GGI no.57:93-124 '56. (MIRA 10:6)
(Sal Steppe--Evaporation)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

36-57-09-9/--

AUTHOR: Laykhtman, D. L. and Rusin, N. P.

TITLE: Meteorological Conditions for a Dry Wind (O meteorologicheskom kriterii sukhoveya)

PERIODICAL: Trudy Glavnoy geofizicheskoy observatorii, 1957, Nr 69, pp 65-70 (USSR)

ABSTRACT: According to the author, a dry wind is defined as a "sukhovey" when it withers vegetation despite otherwise adequate humidity of the soil. The intensity of dryness depends on the interplay of four meteorological factors: air humidity, wind velocity, air temperature, and moisture balance (of vegetation). The author also claims that thus far it has not been possible to determine the role played by each individual factor in producing the dryness of a "sukhovey". The present article is an attempt to find a solution to this problem. The author analyzes each of the four factors and tries to establish an index of aridity based on the amount of moisture available to vegetation. The author assumes that the optimum relative humidity of soil in the arid zones of the Soviet Union is 70 percent. He also recalls the fact that with increasing air dryness the supply of moisture and transpiration increase accordingly, though only to a certain degree. When this critical point is exceeded and aridity continues

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

Rusin, N. P.

20-1-17/42

AUTHORS: Gusev, A. M., Rusin, N. P.

TITLE: The Meteorological Characteristic of the Interior Rayon of the East Antarctic According to Observations at the Pionerskaya Station (Meteorologicheskaya kharakteristika vnutrennego rayona vostochnoy Antarktidy po nablyudeniyam na stantsii Pionerskaya).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 1, pp. 68 - 71 (USSR).

ABSTRACT: The observation programme of the Pionerskaya Station included meteorological standard observations as well as actinometrical, aerological and "glaciological" observations. The present paper only reports on the meteorological characteristic of this area. The average atmospherical pressure at this station amounted to 689,2 mm. The amplitude of the fluctuations of pressure ascertained between May 1956 and February 1957 is 53.9 mm. The temperature conditions at this station are very rough. The coldest mounth is August with a mean temperature of -51.3°. The small steam pressure is characteristical for the humidity of the air. The winds are very steady as to direction and velocity. Feather-like stratus clouds with the lower limit at the height of the station, and the upper limit 200- 30 m above the station are here predominant. Some conclusions: The meteorological conditions on the high-mountain plateau of the Eastern Antarctis

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20-1-17/42

The Meteorological Characteristic of the Interior Rayon of the East Antarctic According to Observations at the Pionerskaya Station.

are very rough. The mean annual temperatures and the mean seasonal temperatures of the air are lower there than anywhere on the globe. This roughness is even intensified by the constant strong winds, the low pressure and the relatively high humidity of the air. All this limits the possibilities of flight and the transport on the ground by which phenomenon the conditions of life and work for men are rendered very difficult. There are 7 tables.

PRESENTED: June 15, 1957, by Shcherbakov, D. V., Academician

SUBMITTED: June 14, 1957

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Problems in the Physics (Cont.)

air masses, others with the problem of atmospheric turbulence. The articles are elucidated with charts, tables and diagrams. References follow each article.

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SOV/1733

Problems in the Physics (Cont.)

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Problems in the Physics (Cont.)

Broydo, A.G., and S.L. Kozhar. Determining the Accuracy of the Station Computation Method for the Coefficient of the Temperature Conductivity of Soil 95

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P., kand. geogr. nauk

Radiation balance of the snow surface in the Antarctic. Inform. biul. Sov. antarkt. eksp. no.2:25-30 '58. (MIRA 12:8)

1.Glavnaya geofizicheskaya observatoriya.
(Antarctic regions--Solar radiation)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

50-58-3-1/22

AUTHOR: Rusin, N. P.

TITLE: The Meteorological Conditions of the Antarctic Oases and Their Influence Upon the Surrounding Surface of Ice (Meteorologicheskiy rezhim antarkticheskikh oazisov i ikh vliyaniye na okruzhayushchuyu ledyanuyu poverkhnost')

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 3, pp. 3-12 (USSR)

ABSTRACT: In the Antarctic, on the coast as well as in the inner regions of the continent, the meteorological conditions in the warm season (from November to March) mainly form under the influence of the radiation factors and geographical conditions (table 1). The advection of the heat coming from the sea has less influence. This explains the reduced flow of air to the coast, the rise of the monthly average temperature from winter until summer by 20°C and still more, the ceasing of the snow--storms and others. In order to be able to determine the influence of the radiation- and heat-economy in the formation of the meteorological conditions of the Antarctic oases, observations of all component values of the radiation economy, the temperature gradients, the water content of the

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The Meteorological Conditions of the Antarctic Oases and Their Influence Upon the Surrounding Surface of Ice 50-58-3-1/22

air and the wind velocity were performed in the time from November 26 to 29, 1957 in the Banger oasis in clear weather. Some days before (on January 13 and 14), also in clear weather, similar observations were performed outside the oasis over a quite plain snow-surface in the Depot bay. As is to be seen from table 2, the radiation economy in the oasis at the beginning of summer is very similar to the household of the southernmost points of the Soviet Union which are distinguished by clear weather. The data of the gradient observations between 9 and 1o a. m., noon and 1 p. m., and between 4 and 5 p.m. on the 1st, 4th, 7th, 19th and 22nd of the month permit to calculate the intensity of the heat currents and the humidity on eight certain days for 24 hours respectively and to plot the curves of the 24-hour course of the component values of the heat balance for the Banger oasis and the Depot bay (figures 3 and 4). It was taken into account on that occasion that at the stony surface of the oasis no or little evaporation takes place. Above the snow surface of the Depot bay the heat exchange with the air and the heat of vaporization were determined according to the method of turbulent diffusion. As figures 3 and 4 show, the 24-hours

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course of the heat balance in and outside the oasis is quite different. In the oasis it is equal to the 24-hour course of the desert heat balance, with maximum values of the radiation and the turbulent heat convection around noon as well as of the heat convection at the ground around 1o a.m. and 1o p. m. But in the snow surface surrounding the oasis the turbulent heat convection is directed downward. Table 4 shows the distribution of the average values at the stations Oasis and Mirnyy in the main observation times for 2 summer months as well as the number of storms and hurricanes. Table 5 gives the distribution of the variations of the wind velocity according to the limiting values on the stations Oasis and Mirnyy in two summer months. In 76% of the observation cases weak and moderate winds prevailed in the Oasis, but the gales in summer are twice more frequent here than in Mirnyy, although the number of stormy days in these two months is 1,5-fold less. On the basis of the obtained data it is assumed that the antarctic oases exert considerable influence upon the temperature conditions of the surrounding region and beside other causes (pollution of the snow around

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the oasis, influence of the melted snow etc.) accelerate the withdrawal of the blanket of snow and ice and contribute to the gradual enlargement of the continent freed from ice. As the observations show, the temperature influence of the oasis does not manifest itself, as the average temperatures of the air in the oasis at this time are 1 - 2°C lower than outside the oasis. There are 6 figures, 8 tables, and 4 references, all of which are Soviet.

1. Antarctic regions--Meteorology 2. Ice--Meteorological factors

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.

Radiation balance of grain field. Trudy GGO no.77:43-56 '58. (MIRA 12:4)

(Meteorology, Agricultural) (Solar radiation)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

3(3) PHASE I BOOK EXPLOITATION SOV/2387

Rusin, Nikolay Petrovich

Klimat Antarktiki (Climate of the Antarctic Continent) Leningrad, Gidrometeoizdat, 1959. 111 p. Errata slip inserted. 5,000 copies printed.

Ed.: Yu.V. Vlasov; Tech. Ed.: M.Ya. Flaum

PURPOSE: This booklet is intended for the general reader.

COVERAGE: The booklet contains the latest data on climatic conditions on the Antarctic continent. On the basis of observations by Soviet and foreign meteorological stations it discusses general and seasonal climatic characteristics, and unique features of the microclimate of Antarctic oases. It further attempts to describe past weather conditions by studying Antarctica's glaciation. No personalities are mentioned. There are 31 figures, 22 tables and no references.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.

(10)

PHASE I BOOK EXPLOITATION SOV/3606

Nauchnaya konferentsiya po problemam meteorologii Antarktiki, Moscow, 1959

Tezisy dokladov (Theses of Reports at the Scientific Conference on Meteorological Problems in Antarctica, Moscow, 1959) Moscow, Gidrometeoizdat (Otd-niye) 1959. 47 p. 1,000 copies printed.

Ed.: O.G. Krichak; Tech. Ed.: I.M. Zarkh.

PURPOSE: The publication is intended for meteorologists, particularly for those interested in the climatology of Antarctica.

COVERAGE: This book contains summaries of thirty-five reports presented at the Scientific Conference on Meteorological Problems in Antarctica, held in Moscow, October 26 to 28, 1959. The summaries are arranged in four groups: (1) general problems of the geography of Antarctica; (2) atmospheric circulation; (3) radiation balance, heat balance, climate and special features of individual elements; (4) methods of observation and measurement. No personalities are mentioned. There are no references.

PART III. RADIATION BALANCE, HEAT BALANCE, CLIMATE, AND THE CONDITION OF INDIVIDUAL ELEMENTS

Rusin, N.P. [Candidate of Geographical Sciences, Glavnaya geofizicheskaya observatoriya im. A.I. Voyeykova (Main Geophysical Observatory im. A.I. Voyeykov)] Radiation Balance of the Surface of the Snow in Antarctica 20

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Gusev, A.M. [Institute of Applied Geophysics, AS USSR] Physical Causes of Ice Climatic Feature in the Interior Regions of Antarctica 28

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Rusin, N.P.

SOV/4339

PHASE I BOOK EXPLOITATION

Sovetskaya antarkticheskaya ekspeditsiya, 1955-

Pervaya kontinental'naya ekspeditsiya 1955-1957 gg.; nauchnyye rezul'taty (First Continental Expedition, 1955-1957; Scientific Results) Leningrad, Izd-vo "Morskoy transport," 1959. 161 p. 2,000 copies printed. (Series: Its: Materialy, tom 2)

Sponsoring Agency: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

Ed.: M.M. Somov, Doctor of Geographical Sciences; Tech. Ed.: L.P. Drozhzhina.

PURPOSE: This book is intended for polar specialists, geographers, geologists, meteorologists, and geophysicists.

COVERAGE: This book is Volume 2 of a multivolume work containing scientific data collected by the First Soviet Continental Expedition to the Antarctic (1955-57), sent out under the auspices of the Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut (Arctic and Antarctic Scientific Research Institute) as part of the IGY program. The purpose of the expedition was to survey an area between 74 to 111°E longitude and 59 to 70°S latitude (an area of about 1

Card 1/4

Continental Expedition (Cont.)

SOV/4339

million square kilometers). [illegible] methods and techniques for field studies [illegible] to local conditions, and to initiate a systematic study of the natural phenomena of the region. Ground and aerial observations were conducted in the more interesting areas around and between Mirnyy and Pionerskaya, in the three oases of Grierson, Bunger, and Vestfold, on the Shackleton Ice Shelf, Drygalski Island, and a number of nunataks (Amundsen, Gauss, etc.). Geological, geographic, and geophysical observations were made at the Mirnyy Observatory and at the Pionerskaya and Oazis research stations. No personalities are mentioned. There are no references.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

PHASE I BOOK EXPLOITATION SOV/4088

Rusin, Nikolay Petrovich

Kontinent za oblakami (Continent Beyond the Clouds) Moscow, Izd-vo "Sovetskaya Rossiya," 1959. 173 p. 20,000 copies printed.

Ed.: Yu. E. Berenson; Tech. Ed.: N. L. Yusfina.

PURPOSE: This book is intended for the general reader interested in Antarctic research and exploration.

COVERAGE: The book gives a popular account of Soviet research activities in Antarctica during the IGY. The author describes the investigations of electrical and magnetic phenomena in the atmosphere (magnetic storms, the terrestial electromagnetic field, radio wave propagation, auroras, etc.), and of geological, geophysical, oceanographic, and meteorological processes conducted by the expedition. The question of the relationship between variations in sea level and thawing in the Antarctic was also studied. No references are given.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

Rusin, N.P.

PHASE I BOOK EXPLOITATION SOV/3603
SOV/2-M-96

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy metodiki meteorologicheskikh nablyudeniy i nablyudeniya v Antarktide. (Problems of Meteorological Observation Methods and of Observations in Antarctica) Leningrad, Gidrometeoizdat, 1959. 105 p. (Series: Its: Trudy, vyp. 96) Errata slip inserted. 1,200 copies printed.

Sponsoring Agency: U.S.S.R. Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov.

Ed. (Title page): Z.I. Pivovarova, Candidate of Geographical Sciences; Ed. (Inside book): T.V. Ushakova; Tech. Ed.: N.V. Volkov.

PURPOSE: The publication is intended for meteorologists working in offices of the Hydrometeorological Service and in hydrometeorological stations.

COVERAGE: This is a symposium of 11 articles, published as No. 96 of the Transactions of the Main Geophysical Observatory imeni A.I. Voyeykov. Several articles are devoted to special features in the distribution of meteorological

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elements and the radiation condition in the USSR and in Antarctica. Other articles analyze methods of meteorological and actinometric observations and the processing of their results. References are given at the end of each article.

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Berlin, I.A. Some Special Features in the Distribution of Relative Humidity in Mountainous Regions 71

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

STERNZAT, Moisey Semenovich; SAPOZHNIKOV, Aleksandr Arkad'yevich. Prinimali uchastiye: YANISHEVSKIY, Yu.D.; RUSIN, N.P.; PIVOVAROVA, Z.I.. KAROL', B.P., otv.red.; YASNOGORODSKAYA, M.M., red.; BRAYNINA, M.I., tekhn.red.; FLAUM, M.Ya., tekhn.red.

[Meteorological instruments, observations, and processing of data] Meteorologicheskie pribory, nabliudeniia i ikh obrabotka. Leningrad, Gidrometeor.izd-vo, 1959. 519 p. (MIRA 13:1)
(Meteorology--Observations)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

Rusin, N.P.

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Vsesoyuznoy gidrologicheskoy s'yezd, 3-i, Leningrad, 1957.

Trudy...t. III: Sekhsiya gidrofiziki [Transactions of the 3rd All-Union Hydrological Convention. v. 3: Hydrophysics Section] Leningrad, Gidrometeoizdat, 1959. 470 p. Errata slip inserted. 2,000 copies printed.

Sponsoring agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Minstrov SSSR.

Resp. Ed.: V.A. Uryvayev; Ed.: V.S. Protopopov; Tech. Ed.: M.I. Braynina.

PURPOSE: This work is intended for meteorologists, hydrologists, and hydrophysicists, particularly those engaged in the study of snow and ice and evaporation processes.

COVERAGE: This book contains papers on hydrophysics which were presented and discussed at the Third All-Union Hydrological Conference in Leningrad, October 1957. The Conference published 10 volumes on various aspects of hydrology of which this is number 3. The editorial board in charge of the series include: V.A. Uryvayev (Chairman), O.A. Alekin, Ye.V. Bliznyak (deceased), O.N. Borsuk, M.A. Velikanov, L.K. Davydov, A.P. Domanitskiy, G.P. Kalinin, S.N. Kritskiy, B.I. Kudelin, L.F. Manoim, M.F. Menkel', B.P. Orlov, I. V. Popov, A.K. Proskuryakov, D.L. Sokolovskiy, O.A. Spengler, A.I. Chebotarev, and S.K. Cherkavskiy. This volume is divided into 2 sections: the first contains reports from the subsection for the study of evaporation processes, and the second contains reports from the snow and ice subsection. References accompany each article.

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RUSIN, N.P., kand. geograf. nauk

Gravity winds in the coastal zone of Eastern Antarctica. Inform. biul. Sov. antark. eksp. no.4:33-36 '59. (MIRA 12:11)

1.Glavnaya geofizicheskaya observatoriya.
(Antarctic regions--Winds)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P., kand.geograficheskikh nauk

Evaporation and condensation in Antarctica. Inform.biul. Sov.antark.eksp. no.13:17-20 '59. (MIRA 13:8)

1. Glavnaya geofizicheskaya observatoriya.
(Antarctic regions--Evaporation)
(Antarctic regions--Condensation)

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A052/A129

3.5100

AUTHORS: Gusev, A. M., and Rusin, N. P.

TITLE: Meteorological characteristic in the inner district of the Eastern Antarctic Region according to observations made at the station Pionerskaya

PERIODICAL: Referativnyy zhurnal Geografiya, no. 9, 1960, 62, abstract 23143 (V sb.: Klimat Antarktiki. Moscow, Geografgiz, 1959, 102 - 109)

TEXT: The results of observations made at the station Pionerskaya during the period from May 1956 to February 1957 show the extreme severity of meteorological conditions of the high-mountain plateau of the Eastern Antarctic Region. Very low air temperatures (mean monthly temperatures of the warmest and the coldest month - December and August - are -21.5°C and -51.3°C, respectively), low atmospheric pressure (mean pressure is 689.2 millibars), lasting strong winds (mean wind speed is 10 m/sec), frequent snowstorms and snowfalls make living conditions very hard and heavily impede the work of land transport and aviation.

N. I. D.

[Abstractor's note: Complete translation]

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N. P.

"Meteorological and Radiation Regimes of Antarctic Continent After Observations by Soviet Antarctic Expeditions"

report to be submitted for the Intl. Geographical Union, 10th General Assembly and 19th Intl. Geographical Congress, Stockholm, Sweden, 6-13 August 1960.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSINOV, V. G.

USSR

ANOKHIN, Petr Kuz'mich, Active Member, Academy of Medical Sciences, USSR; Scientific Director, Institute of Surgery imeni A. A. Vishnevskiy, Academy of Medical Sciences USSR, Moscow; Head, Chair Normal Physiology, First Moscow Medical Institute imeni I. M. Sechenov, Moscow; Head, Laboratory of Human Embryogenesis, Institute of Obstetrics and Gynecology, Moscow - "Electroencephalographic analysis of cortical-subcortical interrelations in positive and negative conditioned reflexes" (II)

ASRATYAN, Ezras Asratovich, Corresponding Member, Academy of Sciences USSR; Active Member, Academy of Sciences Armenian SSR; Director, Laboratory of Physiology, Academy of Sciences USSR, Moscow - "The rise and localization of cortical inhibition in the elements of the conditioned reflex arc" (VI)

KUPALOV, Petr Stepanovich, Active Member, Academy of Medical Sciences USSR; Head, Physiology Division, Institute of Experimental Medicine, Academy of Medical Sciences USSR, Leningrad - "Normal and pathological neural processes in the higher divisions of the brain" (III)

RUSINOV, V. G., (Probably Vladimir Sergeyevich RUSINOV, Corresponding Member, Academy of Medical Sciences USSR; Director, Institute of Higher Nervous Activity, Academy of Sciences USSR, Moscow; Head, Department of Physiology and Pathology of the Nervous System, Institute of Neurosurgery imeni N. N. Burdenko, Academy of Medical Sciences USSR, Moscow) - "The reflection of the process of irradiation in the electroencephalogram during the formation of conditioned reflexes" (IV)

USSR (continued)

SARKISOV, Sergey Aleksandrovich, Lieutenant Colonel; Active Member, Academy of Medical Sciences USSR; Director, Institute of the Brain, Academy of Medical Sciences USSR, Moscow - "Current data on the structure and function of the human brain" (I)

SNEZHNEVSKIY, Andrey Vladimirovich, Corresponding Member, Academy of Medical Sciences USSR; Head, Chair of Psychiatry, Central Institute for the Advanced Training of Physicians, Moscow - "Clinical and pathophysiological lawfulness in the development of remissions and complications during the treatment of schizophrenics with psychotropic agents" (V)

ZAKUSOV, Vasiliy Vasil'yevich, Active Member, Academy of Medical Sciences USSR; Director, Institute of Pharmacology and Chemotherapy, Academy of Medical Sciences, Moscow - "The effect of pharmacological agents on conditioned and unconditioned reflexes" (III)

report to be submitted for the 1960 Pavlovian Conference on Higher Nervous Activity, New York Academy of Sciences, New York, N. Y. 13-15 October 1960.

(7)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

S/169/62/000/001/043/083
D228/D302

AUTHOR: Rusin, N. P.

TITLE: Turbulent heat-exchange in the near-surface layer of air in Antarctica

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 21, abstract 1B151 (Inform. byul. Sov. antarkt. ekspeditsii, no. 14, 1960, 9-13)

TEXT: Estimates of the monthly sums of turbulent heat flow are given for 12 months of the year at a number of points in Antarctica, these being obtained partly from the data of direct gradient measurements and partly by means of approximate extrapolations from the data of general meteorologic measurements. From the values of the yearly totals of the turbulent heat flow L (measured in large calories per 1 cm^2) four types of areas are distinguished in the Antarctic: 1) Seabord areas not liable to be affected by effluent winds (L from -7 to -10); 2) coastal sections subjected to the effect of effluent winds (L from -12 to -20); 3) ice-cap slopes

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Turbulent heat-exchange ...

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(L from -7 to -10); and 4) interior regions (L from -5 to -7). Each of these areas is characterized by its own type of yearly variation for the turbulent heat flow. /Abstractor's note: Complete translation./

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68

AUTHOR: Rusin, N. P.

TITLE: Solar radiation in Antarctica 12

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 4, 1963, abstract 4B157 (Sb. materialy konferentsiy po itogam MGG (1960) i meteorol. izuch. Antarktidy (1959), M., Gidrometeoizdat, 1961, 277-289)

TEXT: Monthly and annual values of the components of the radiation balance and the total radiation balance for Antarctica over the period 1956-1959 are discussed. During the Antarctic summer the monthly totals of direct solar radiation (S') falling on a horizontal surface and the total radiation Q under average cloud cover reach the highest values observed on earth (S' = 20 kcal/cm^2 and Q = 100 kcal/cm^2). The monthly totals for S' in Antarctica rise in the summer months with an increase in latitude to 78° - 80° South latitude, then begin to decrease with the reduction in the altitude of the glacier slope. During the transitional periods (from March through May and from August through October) the monthly totals for S' decrease continuously

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Solar radiation in Antarctica 6

with altitude. The summer monthly totals for Q, also the annual totals differ little with the latitude at sea level while they grow rapidly with an increase in the latitude on the glacier slope and reach a maximum at about 80° South latitude where the altitude above sea level is highest. Unlike similar conditions in the Antarctic, the monthly totals of scattered radiation are not high in Antarctica under average cloud cover conditions. On the average scattered radiation accounts for about 50 per cent of the year's total on the coast and about 30 per cent in the depths of the continent. Due to the high albedo, reflected radiation in Antarctica reaches the highest values on earth. The albedo of the snow averages 0.83 - 0.85 for the year; in some years when there is abundant melting of snow the albedo of the snow on the coast drops to 0.6 - 0.7. Long-wave radiation in the atmosphere plays a large role in the amount of radiated heat received in Antarctica; on the whole, radiation from the atmosphere compensates for 65 - 85 per cent of the radiated heat losses from the underlying surface during the year. The radiation balance in Antarctica turns out to be negative almost everywhere for ice and snow surfaces, the exception being coastal regions where the monthly totals of the radiation balance may reach positive values in the summer.

[Abstracter's note: Complete translation.]
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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, Nikolay Petrovich; PROTOPOPOV, V.S., red.; BRAYNINA, M.I., tekhn. red.

[Meteorological and radiation regime of Antarctica] Meteorologicheskii i radiatsionnyi rezhim Antarktidy. Leningrad, Gidrometeor. izd-vo, 1961. 446 p. (MIRA 15:1)
(Antarctic regions—Meteorology)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N. P., Doc Geog Sci -- "Meteorology of ~~earth's sur-~~ the
near the earth surface
face air layer in the Antarctica." Len, 1961. (Min of ~~Sea~~ the Maritime
Fleet
~~Transport~~ USSR. ~~Chief~~ Main Admin of North ~~Maritime~~ Sea Route. Arctic
and Antarctic Sci Res Inst) (KL, 8-61, 232)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

S/169/62/000/012/061/095
D228/D307

AUTHOR: Rusin, N.P.

TITLE: Meteorological and radiation conditions of Antarctica according to observations of Soviet Antarctic expeditions

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1962, 57, abstract 12B370 (In collection: XIX Mezhdunar. geogr. kongress v Stokgol'me, 1960, M., AN SSSR, 1961, 43-47)

TEXT: Three zones - inland, zone of effluent winds, coastal - are distinguished in the temperature and wind conditions in Antarctica. The climate of the inland zone is characterized by low air temperatures, clear weather, and small wind velocities. The average annual air temperature is -50,- 60°; the average temperature of the coldest month is -70, -72°; the average temperature of the warmest month is -30, -32°. In the period of the winter anticyclone the minimum average monthly pressure values are related to the presence

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of an upper cyclone. The annual precipitation amounts to 30-50 mm. The amount of sublimed moisture is 15-20 mm per annum. The annual total of turbulent heat flow comprises 4-5 kcal/cm^2. The climate of the effluent wind zone is one of eternal frost and blizzard. Depending on the height of the slope, the average annual air temperatures vary from -20 to -50°; the average temperatures of the coldest month are from -30 to -60°, those of the warmest being from -10 to -20°. The annual precipitation is 600 mm in the northern part of the zone and 60-120 mm in the southern. The annual total of turbulent heat flow equals 7-10 kcal/cm^2. The following subzones are distinguished in the climate of the coastal zone: areas subjected to the influence of effluent winds, areas to which the influence of effluent winds does not extend, and Antarctic oases. The average annual air temperature fluctuates from -10, -11° to -17, -20°. The average temperatures of the coldest month equal -18 to -35°; those of the warmest are close to 0°. In areas, subjected to the influence of effluent winds, the average annual wind velocity is 12-15 m/sec; the maximum wind velocity is 60 m/sec. The number of stormy days is 250. The annual total of turbulent heat flow com-

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D228/D307

prises 15-20 kcal/cm^2. The climate of Antartic oases differs in its relatively high summer temperatures (10°) and in the dryness of the air. The total radiation for Antarctica comprises 95-110 kcal/cm^2. The annual radiation balance is negative in consequence of the high albedo and the effective radiation. Far inland the radiation is -4, -5 kcal/cm^2 per annum; it is -7, -9 kcal/cm^2 per annum on the slope and -5, -9 kcal/cm^2 on the coast. In summer the radiation balance is positive (1-1.5 kcal/cm^2 per month).
[Abstracter's note: Complete translation]

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D228/D304

3,1800

AUTHOR: Rusin, N. P.

TITLE: Radiation regime of Antarctica's snow surface

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 16-17, abstract 6B134 (Aktinometriya i atmosfern. optika, L., Gidrometeoizdat, 1961, 57-68)

TEXT: Antarctica's radiation regime is analyzed from the factual observations of Soviet and foreign stations in various areas and compared with the data of Arctic stations. It is noted that the unique radiation regime of Antarctica is related to the geographic latitude, the considerable altitudes, and the peculiarity of the continent's snow surface, which possesses an enormous reflecting capacity and radiates almost like an absolutely black body. On clear days in mid-summer the diurnal radiation totals amount to more than 900 cal/cm^2 at the stations of Mirnyy and Pionerskaya. In Antarctica in the summer months the monthly solar radiation magnitudes surpass those for the same latitudes in the Arctic by al-

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most 1.5 times and more. It is noted that the daily solar radiation totals increase with increasing local elevation; they also increase in the presence of cloud, in connection with multiple reflection. Sky radiation comprises 10 - 15% of the solar; it greatly increased (to 25 - 30%) at the time of a local snowstorm or snow haze. Maximum values for the solar radiation upon a perpendicular surface in Antarctica in the Antarctic Circle's latitude are observed in December and amount to ~1.50 cal/cm^2 min. In consequence of the albedo's high values throughout the year (80 - 90%) the absorbed radiation is comparatively small in Antarctica, comprising 15 - 20 kg.cal/cm^2 per annum, i.e. approximately 2 times lower than in the same latitudes of the Arctic. The radiation balance magnitudes in various areas of Antarctica differ considerably in connection with differences in the underlying surface and the cloud conditions: at Stn. Mirnyy the radiation balance is negative for an average of 4 - 5 months in the year; at Stn. Pionerskaya, however, it is negative for 10 months. There are minimum effective radiation values in midwinter, the maximum magnitudes being in December. For the year as a whole the snow surface loses, by long-wave radiation,

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Radiation regime of ... S/169/62/000/006/056/093
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about 30% of the incoming solar radiation at Stn. Mirnyy and about 25% at Stn. Pionerskaya. /Abstracter's note: Complete translation./

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, Nikolay Petrovich, doktor geogr. nauk; FLIT, Liya Abramovna, zhurnalist; POZHIDAYEVA, M., red.; MARAKASOVA, L.P., tekhn. red.

[Man changes the climate]Chelovek meniaet klimat. Moskva, Sovetskaia Rossiia, 1962. 128 p. (MIRA 16:3)
(Climatology)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

DASHKEVICH, L.L.; SURAZHSKIY, D.Ya.; USOL'TSEV, V.A.; AZBEL', M.Ye.; BOZHEVIKOV, S.N.; VORZHENEVSKIY, N.S.; MANUYLOV, K.N.; GLAZOVA, Ye.F.; KARPUSHA, V.Ye.; PROTOPOPOV, N.G.; SHADRINA, Ye.N.; IGRUNOV, V.D.; NECHAYEV, I.N.; BESPALOV, D.P.; ILLARIONOV, V.I.; GLEBOV, F.A.; GLAZOVA, Ye.F.; KAULIN, N.Ya.; GORYSHIN, V.I.; GAVRILOV, V.A.; TIMOFEYEV, M.P., retsenzent; YEFREMYCHEV, V.I., retsenzent; KRASOVSKIY, V.B., retsenzent; V'YUNNIK, A.P., retsenzent; STERNZAT, M.S., otv. red.; RUSIN, N.P., otv. red.; YASNOGORODSKAYA, M.M., red.; VOLKOV, N.V., tekhn. red.

[Instructions to hydrometeorological stations and posts] Nastavlenie gidrometeorologicheskim stantsiiam i postam. Leningrad, Gidrometeoroizdat. No.3. Pt.3. [Meteorological instruments and observation methods used on a hydrometeorological network] Meteorologicheskie pribory i metody nabliudenii, primeniaemye na gidrometeorologicheskoi seti. 1962. 295 p. (MIRA 15:5)

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DASHKEVICH, L.L.--- (continued) Card 2.

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. 2. Glavnaya geofizicheskaya observatoriya Nauchno-issledovatel'skogo instituta gidrometeorologicheskikh priborov i Gosudarstvennogo gidrologicheskogo instituta (for Dashkevich, Surazhskiy, Usol'tsev, Azbel', Bozhevikov, Vorzhenevskiy, Manuylov, Glazova, Karpusha, Protopopov, Shadrina, Igrunov, Nechayev, Bespalov, Illarionov, Glebov, Glazova, Kaulin, Gorysnin, Gavrilov). 3. Komissiya Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR (for Nechayev, Usol'tsev, Timofeyev, Yefremychev, Krasovskiy, V'yunnik)
(Meteorology)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

S/169/63/000/003/003/042
D263/D307

AUTHORS: Dolgin, I.M., Laykhtman, D.L., Rusin, N.P. and Treshnikov, A.F.

TITLE: Results of meteorological observations in the Arctic and in Antarctica

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1963, 5, abstract 3A10 (Tr. Vses. nauchn. meteorol. soveshchaniya. T.1. L., Gidrometeoizdat, 1962, 58-71)

TEXT: Apart from a short history of the development of meteorological observations in the Arctic and later in the Antarctic, the author compares regularities in meteorological phenomena in the 2 polar regions. In the coldest parts of the Arctic and the Antarctic the mean annual temperatures are respectively -20 and -55°C, and the absolute minimum temperatures are -50 and -90°C. Temperature of the coastal areas of Antarctica are close to the temperatures of the central Arctic. In central Antarctica the air temperature is 30-40°C lower than in the Arctic, both in the summer and in winter. The mean annual temperature of the free atmosphere up to 16 km is

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Results of meteorological ...

however only ~ 5-10°C lower over the Antarctic. Stratospheric temperature of both regions compared is almost the same in the summer, and in winter the Arctic stratosphere is 5-15°C warmer. To characterize the effects of advection it is necessary to note that the annual variation of the troposphere over the Arctic is considerably greater than over the Antarctic. The reverse is true of the stratosphere. Wind directions in both regions are illustrated by mean annual graphs of wind directions. In the Antarctic, owing to the peculiarities of the relief of the continent, wind direction is highly constant. Western directions predominate in the Arctic, and eastern in the Antarctic. Mean annual wind velocities are 10-20 m/sec in the Antarctic, and 3-5 m/sec in the Arctic. Maximum wind velocities reach 90 in the Antarctic and 40 m/sec in the Arctic, and near the tropopause in both polar regions the velocity maximum is clearly expressed as 15-20 m/sec. The Arctic may be schematically considered as an ocean surrounded by land, and the Antarctic as a continent by an ocean. According to considerations adduced in the paper, this may explain the peculiarities of the meteorological conditions in the two regions, both in summer and in the winter.

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Results of meteorological ...

On the basis of considerations of the radiation regimes, turbulent thermal currents, heat losses due to evaporation, and heat exchange of the active surface with lower layers, the authors show that, in contrast to atmospheres over middle and southern latitudes, polar atmospheres lose heat to the rest of the globe. Polar atmosphere is therefore a cold reservoir for the overall atmosphere. A sufficiently large amount of experimental data has already been collected regarding the problem of the 'iciness of the Arctic basin'; these data are of particular interest for the USSR. The following may specially be mentioned: (1) About 90% of the area of the Arctic basin is covered by ice, and in the summer ice covers 18-36% of the surface of the seas surrounding the Arctic. (2) It may be proposed that there is a certain critical thickness of ice, which decreases from N to S, for which thawing and freezing is balanced over the year. According to arguments put forward by the authors: (1) Results of meteorological observatories in polar regions helped in the solutions of such important national economy problems as ensuring of travel by sea or air, and growth of economical development of the extreme northern territories. (2) Daily variations of meteorological

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Results of meteorological ...

elements are practically nonexistent in polar regions, so that the latter may be regarded as vast natural laboratories for the study of atmospheric processes under most favorable conditions. (3) To solve the current problems of polar meteorology it is necessary to increase the complex of meteorological observations by a considerable amount, increase their true accuracy, and to develop in every way the theoretical foundations of polar studies. Numerical methods of weather forecasting in particular may apparently be used in these regions with greatest success.
[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.

Accumulation of snow in the precipitation gauge during surface storms. Trudy GGO no.129:118-121 '62. (MIRA 16:2)
(Snow)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.; STRUZER, L.R.; SMIRNOV, S.A.; TRIFONOVA, T.S.

Letters to the editors. Izv.AN SSSR.Ser.geog. no.3:152 My-Je '62. (MIRA 15:5)

(Geography)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, Nikolay Petrovich, doktor geogr. nauk; ZEL'MANOVA, L.A., red.

[From Havana to "Treasure Island"] Ot Gavany do "Ostrova Sokrovishch." Leningrad, Gidrometeoizdat, 1964. 161 p. (MIRA 18:2)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

L 17023-66 EWT(1)/FCC GW SOURCE CODE: UR/2531/65/000/182/0003/0015

ACC NR: AT6002837

AUTHOR: Rusin, N. P.

ORG: Main Geophysical Observatory, Leningrad (Glavnaya geofizicheskaya observatoriya)

TITLE: Meteorological regime of the area off the eastern Antarctic coast

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 182, 1965. Voprosy klimatografii (Problems in climatography), 3-15

TOPIC TAGS: solar radiation intensity, marine meteorology

ABSTRACT: Data are presented on wind speed and direction, air temperature, pressure, cloudiness and frequency of snowstorms. On the basis of the admittedly insufficient material, a preliminary attempt is made to describe the meteorological regime of the area and some basic features which may be summarized as follows is presented: 1) the summer-fall season is characterized by maritime circulation, air temperature around 0°C, easterly winds of 4-5 m/sec, frequent fog and heavy low clouds. 2) The winter is dominated by continental circulation with temperatures low-

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er and wind weaker than on the continent, ESE winds prevailing, with marked continental cold advection. 3) Spring is marked by little wind, clear skies and temperatures close to those of the continent (-7 to -10°C). 4) Islands and icebergs have a specific local climate with lower temperature, higher wind speeds and local circulation. 5) Precipitation, cloudiness and humidity over the ocean are different from those over the continent, even in winter. 6) Solar radiation in winter and spring is higher over the ocean despite greater cloudiness. In summer and fall, solar radiation is only half as much over the ocean as over the continent and for latitudes between 50 and 60° amounts to no more than 8-10 kcal/cm^2/month. Orig. art. has: 4 figures, 10 tables.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N.P.

Meteorological regime of the coastal zone of East Antarctica.
Trudy GGO no.182:3-15 '65. (MIRA 18:9)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

ACCESSION NR: AT4041515 S/2732/59/002/000/0039/0045

AUTHOR: Rusin, N. P.

TITLE: Certain characteristics of the radiation and heat balance in Eastern Antarctica

SOURCE: Sovetskaya antarkticheskaya ekspeditsiya, 1955-1958. Pervaya kontinental'naya ekspeditsiya, 1955-1957 gg.; nauchny*ye rezul'taty* (First continental expedition; scientific results). Trudy ekspeditsii, v. 2. Leningrad, Izd-vo "Morskoy transport," 1959, 39-45

TOPIC TAGS: meteorology, Antarctica, radiation balance, heat balance, albedo

ABSTRACT: A report has been published on the first systematic year-long observations of all components of the radiation balance in Antarctica. It was found that there are unusually high values of total and reflected radiation and small values of the radiation balance in summer in Antarctica in comparison with the Arctic. On the other hand, in winter the components of the radiation balance are similar to those for the Arctic. Totalmonthly radiation at Mirny*y and Pionerskaya are almost the same as for Arctic stations at the same latitudes for the entire summer. In Antarctica the total radiation is somewhat greater than in the Arctic, even in winter. The reason for such high Q values in Antarctica is the relatively small

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number of lower-level clouds and a large number of clear days; this is particularly true of the interior. Antarctic albedo is equivalent to Arctic albedo in winter, but is 2 or 3 times greater in summer, being approximately the same (85-90%) as in winter. The sums of effective radiation in the Arctic and in coastal Antarctica are approximately the same, but in winter in interior Antarctica the effective radiation decreases due to strong atmospheric counterradiation associated with strong inversions. Due to the high albedo the radiation balance is small despite the high total radiation, approximately 4 or 5 times less than for comparable latitudes in the Arctic; in the interior the summer radiation balance may even be zero or negative. Tables incorporated in the text provide informative data. Table 1 gives the diurnal and monthly sums of the components of the radiation balance in Antarctica and the Arctic; Table 2 gives the diurnal sums of components of the radiation balance in Antarctica on clear days; Table 3 gives the distribution of mean 10-day temperatures from November through January for three stations; Table 4 gives the diurnal sums of the heat balance. Several of the most important components are discussed in detail. Particular attention is given to the diurnal variation of the turbulence coefficient (Table 5) and the monthly sums of the heat balance at Mirny*y (Table 6). Orig. art. has: 2 figures and 6 tables.

ASSOCIATION: none

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

ACCESSION NR: AT4044401 S/2531/64/000/160/0060/0073

AUTHOR: Rusin, N. P., Strokina, L. A., Braginskaya, L. L.

TITLE: Total radiation and radiation balance of Antarctica

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 160, 1964. Metodika meteorologicheskikh nablyudeniy i obrabotki (Methods of meteorological observation and processing observation data), 60-73

TOPIC TAGS: meteorology, solar radiation, total solar radiation, radiation balance, Antarctica

ABSTRACT: This article is a discussion of the characteristics of the components of the radiation balance in Antarctica. The text is essentially a commentary on Figures 1-4 of the Enclosure, plus additional figures showing the total radiation and radiation blanace in January and July. The standard formulas used in determining the various radiation balance components are also given. The initial data used in compilation of the maps were from the book "Meteorological and Radiation Regime of Antarctica", by N. P. Rusin (Meteorologicheskiy i radiatsionny*y rezhim Antarktidy*, Gidrometeoizdat, Leningrad, 1961), supplemented by observational data of Soviet and foreign stations for 1959-1960. Table 1 of the original gives the monthly and annual values of total radiation and the radiation balance in Antarctica for 22 stations and points; Table 2 gives the mean

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ACCESSION NR: AT4044401

latitudinal values of total radiation and the radiation balance for the ocean waters of the southern hemisphere (latitudes 40, 50 and 60°). Orig. art. has: 8 figures, 2 formulas and 4 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00 ENCL: 04

SUB CODE: ES, AA NO REF SOV: 006 OTHER: 003

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

ENCLOSURE: 01

ACCESSION NR: AT4044401

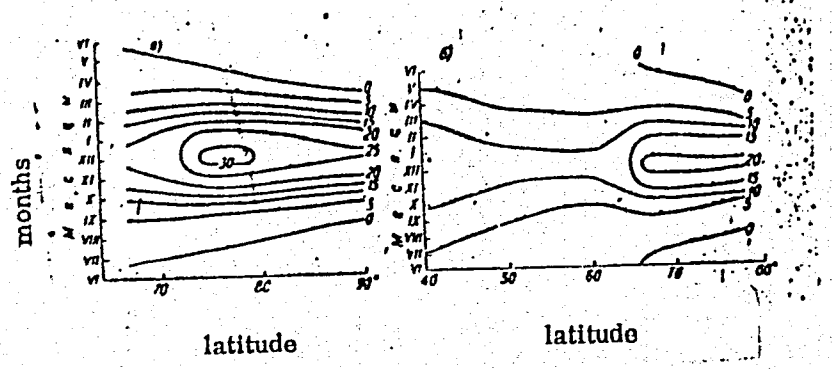

Fig. 1 - Distribution of total radiation in Antarctica.
a -- on glacier slope; b -- over Antarctic waters.

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ENCLOSURE: 02

ACCESSION NR: AT4044401

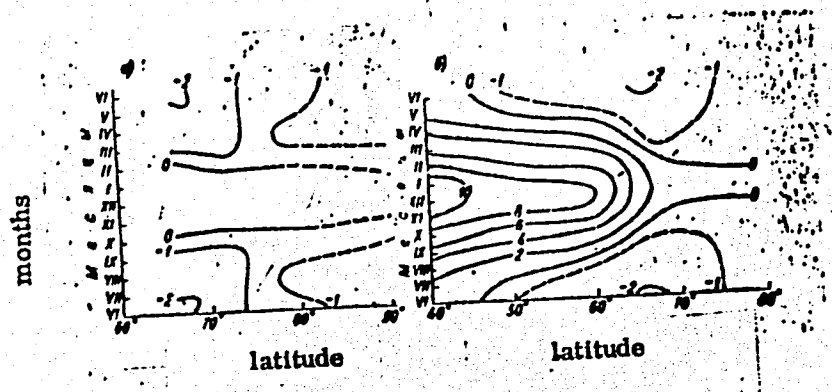

Fig. 2 - Distribution of radiation balance in Antarctica.
a -- on glacier slope; b -- over Antarctic waters.

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ACCESSION NR: AT4044401

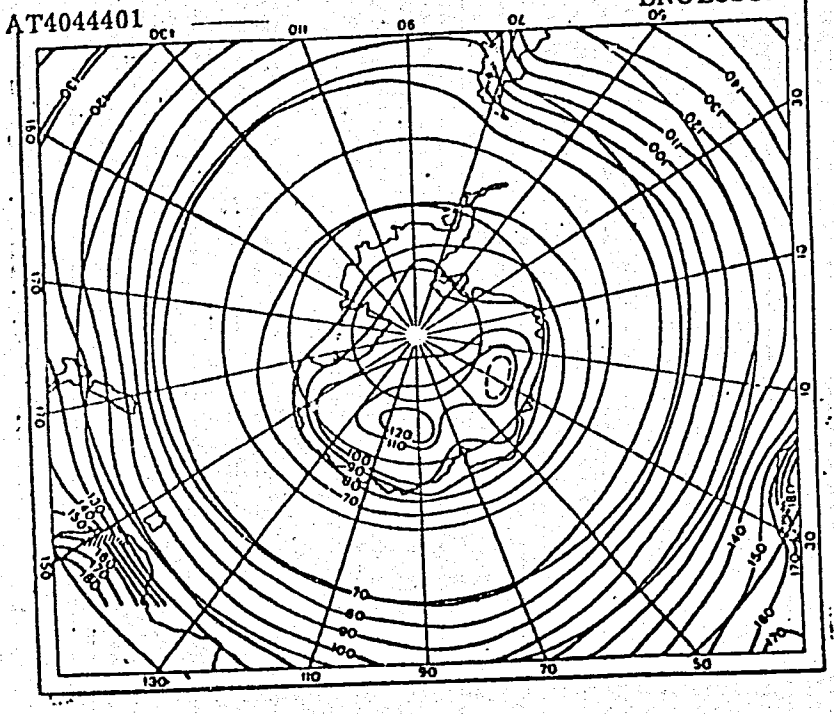

Fig. 3 --

Total solar radiation (Cal/cm^2), year.

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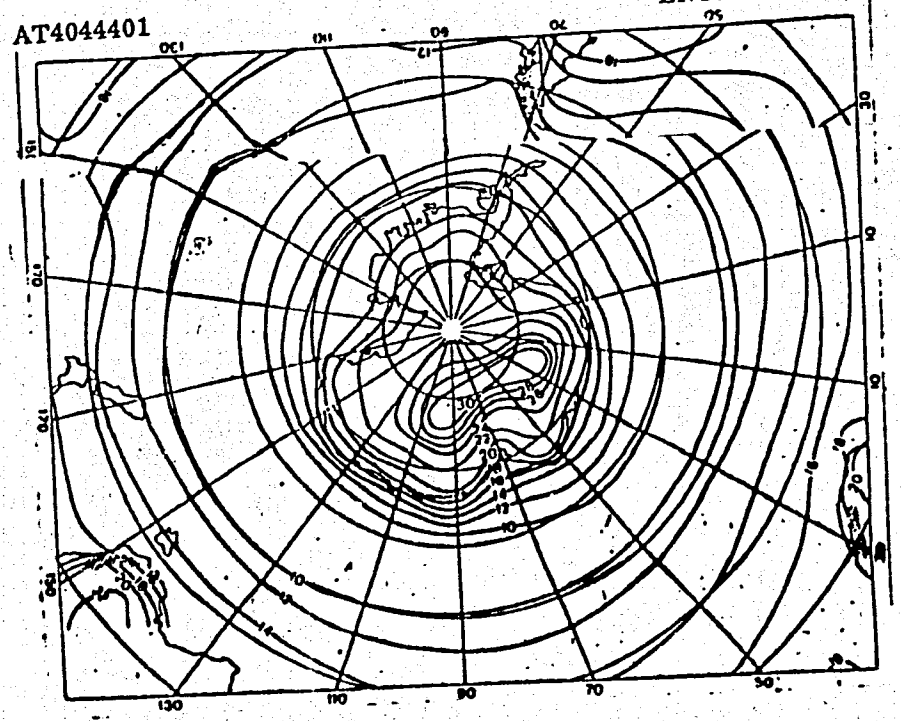
ACCESSION NR: AT4044401

Fig. 4 --

Radiation balance (Cal/cm^2), year.



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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, N. P.; MARSHUNOVA, M. S.

"The radiation balance of Arctic and Antarctic."

report presented at the Atmospheric Radiation Symp, Leningrad, 5-12 Aug 64.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

1. RUSIN, P. I., Eng.

2. USSR (600)

4. Wrought Iron

7. Transformations of ferrite wrought iron during heating with high frequency currents, Vest. mash., 32, No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, F. I.

Dissertation: "Structure and Properties of Hardened Malleable Iron When Heated By High-Frequency Currents." Moscow Machine Tool and Tool Institute, Moscow, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 4, Feb 54)

SO: SUM 243, 19 Oct 1954

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, P.I., inzhener.

High frequency annealing of malleable ferrite iron. Vest.mash. 33 no.5: 52-53 My '53. (MLRA 6:5)

1. Rostovskiy na Donu institut sel'khozmashinostroyeniya.
(Iron--Heat treatment)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

USSR/Engineering - Thermal treatment

Card 1/1 Pub. 128 -14/26

Authors : Rusin, P. I.

Title : The highly qualitative thermal treatment of ferrite-perlite wrought iron

Periodical : Vest. mash. 2, 66-67, Feb 1954

Abstract : The editorial gives some information concerning the thermal treatment of wrought iron, and the influence of the above mentioned treatment on the hardness, microstructure and the concentration of perlite in metal. Illustrations; tables.

Institution : .....

Submitted : .....

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, P.I.; SHAPKIN, V.M.

Residual stresses in malleable, ferritic cast iron hardened by high-frequency currents. Metalloved. i term. obr. met. no.7:52-55 Jl '64. (MIRA 17:11)

1. Rostovskiy-na-Donu Institut sel'skokhozyaystvennogo mashinostroyeniya.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

ACC NR: AR7004300 SOURCE CODE: UR/0271/66/000/011/A007/A007

AUTHOR: Rusin, P. I.; Shapkin, V. M.; Pustovoyt, V. N.

TITLE: TVCh-photorelay designed with semiconductor elements

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 11A56

REF SOURCE: Sb. Avtomatiz. kontrolya tekhnol. protsessov sel'khozmashinostr. Rostov-na-Donu, 1965, 18-21

TOPIC TAGS: automatic control, photorelay, photocontroller, heat treating furnace, photodiode, transistorized amplifier

ABSTRACT: Application of a Ge photodiode having a small inertia (10^{-6} sec) as a sensor in hf-heating systems is considered. A principal circuit for controlling hf oscillator is shown. A photodiode connected to a bridge circuit feeds into a 2-stage transistorized amplifier to whose output the winding of a polarized relay is connected. The instrument is supplied from ac line via a S-0,09 stabilizer. The instrument is tuned with a temperature lamp. The instrument ensures automatic control of thermal treatment of parts and permits improving their quality. One figure. Bibliography of 6 titles. T. R. [Translation of abstract]

SUB CODE: 09, 13

Card 1/1 UDC: 621.318.58

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, P.I.

Structural diagrams of the hardening of ferritic-pearlitic malleable cast iron with heating by high-frequency currents. Izv. vys. ucheb. zav.; chern. met. 8 no.9:180-183 '65. (MIRA 18:9)

1. Rostovskiy-na-Donu institut sel'skokhozyaystvennogo mashinostroyeniya.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

ACCESSION NR: AR4042172 S/0272/64/000/005/0025/0026

SOURCE: Ref. zh. Metrologiya i izmerit. tekhn. Otd. vy*p., Abs. 5.32.146

AUTHOR: Rusin, P. I.; Yaroshevskiy, L. A.; Fedorin, N. N.

TITLE: Method of active control during flat grinding

CITED SOURCE: Sb. rabot Rostovsk.-n/D. n.-i. in-ta tekhnol. mashinostr., vy*p. 7, 1963, 60-70

TOPIC TAGS: transducer, control instrument, control equipment, grinding

TRANSLATION: A method of control is described with which the measuring tip of the pick-up during operation of the machine does not slip along the surface being ground, but is raised above the details being machined and periodically is lowered at a given moment several times during the time of machining, touching the surface of the detail fixed on the table of the machine, and then quickly returns to its initial position. Contact of the tip with the detail occurs during reversing of the table, when its speed is equal to zero. After a given dimension is attained,

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an impulse from the transducer is transmitted through an amplifier and a relay to the actuating unit of machine or to a signalling device. The pick-up is installed on a common block with an electromagnet, and its tip is connected with the electromagnet by a lever which lowers the tip onto the detail. In the instrument is used a specially developed electrical-contact pickup with small transmission ratio, since tests of an industrial model of the transducer showed its sensitivity to vibrations to be too large. Accuracy of operation of the instrument is within 20 μ. The instrument may be used for control on milling, planing and other machines. Four illustrations. Bibliography: 5 references.

SUB CODE: EC, IE ENCL: 00

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4

RUSIN, P.I.; GOFMAN, L.A.; SMOLYANINOV, A.I.; SHAPKIN, V.M.

Device for the control of the hardness of malleable cast iron parts. Lit. proizv. no.8:38-39 Ag '62. (MIRA 15:11)
(Cast iron--Testing) (Hardness--Testing)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446120009-4"