Name: KIYAK, Grigoriy Stepanovich

Dissertation: Spring Wheat in Western Regions of the Ukrainian SSR

Degree: Doc Agr Sci

Affiliation: L'vov Agr Inst

Defense Date, Place: 16 Mar 56, Council of Khar'kov Order of Labor Red Banner Agr Inst imeni Dokuchayev

Certification Date: 13 Oct 56

Source: BMVO 6/57

KIYAK, Grigoriy Stepanovich

[Improvement and use of meadows and pastures] Polipshennia i vykorystannia luk to pasovyshch. Kyiv, Derzh. vyd-vo sil'skohospodarskoi lit-ry Ukrainskoi RSR, 1956. 191 p. (MLRA 10:5)
(Pastures and meadows)

Country : USSR M
Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 11, 1958, 48916

Author : Kiyak; Lomnitskiy, Ya, Ye.
Inst : Sci. Res. Inst. of Agriculture and Animal Husbandry of the Western Districts of the Ukrainian SSR
Title : On the Spacing of the Winter Wheat Varieties in the Fields of Crop Rotation.

Orig Pub: Inform. byul. Nauk.-issl. in-t zemledeliya i tvarinitstva zakhidn. rayoni v URSR, 1956, vyp. 1, 11-13

Abstract: No abstract.

Card : 1/1

Prospects for the improvement of spring wheat cultivation in the western provinces of the Ukrainian SSR. Visnyk AN URSR 27 no.1: 51-56 Ja '56. (MLRA 9:6)

(Ukraine--Wheat)

KIYAK, Grigoriy Stepanovich

[illegible]

[Summer wheat] Iarovaia pshenitsa. Kiev, Akademiia nauk Ukrainskoi SSR, 1957. 182 p. (MLRA 10:5)
(Wheat)

COUNTRY : USSR
CATEGORY : Cultivated Plants. Cereals

ABS. JOUR. : RZhBiol., No. 23 1958, No. 104647

AUTHOR : [illegible] Vol'e-Kiyak, O.S.
INST. : Institute of Agrobiology, AS Ukrainian SSR
TITLE : The Influence of the Bed Area on the Formation of Corn Crop.

ORIG. PUB. : /Pratsi/ In-tu agrobiol. AN URSR, 7, 3-11

ABSTRACT : In the western oblast's of Ukrainian SSR (experiments at the Institute of Agrobiology, Academy of Sciences, Ukrainian SSR), in the growing of fast-maturing varieties of corn for grain, an efficient bed area is 55 x 55 centimeters with two plants to a hill. Variety Bessarabka, with a feeding area of 55 x 55 cm gave an increase in the yield of 7.1-12 centners and variety L'vovskaya I - 5.53-14.8 centners/ha. With an area of 55 x 55 cm, the blossoming of corn and the onset of milky and waxy stages of maturity are accelerated. -- Ye. T. Zhukovskaya

Card: 1/1

Country : URSR
CATEGORY : Cultivated Plants. Grains.

ABS. JOUR. : RZBiol., No. 21, 1958, No. 95922

AUTHOR : Kiyak, O.S.
INST. : Inst. of Agrobiology, AS Ukrainian SSR
TITLE : The Effect of Sowing Rates on the Yields of Different Summer Wheat Varieties

Country : USSR
CATEGORY : Cultivated Plants. Grains.

ABS. JOUR. : RZBiol., No. 21, 1958, No. 95911

AUTHOR : Kiyak,G.S.; Lomnitskiy,Ya.E.
INST. : Inst. of Agrobiology, Acad.of Sciences UkrSSR
TITLE : The Utilization of a Grass Layer Under Wheat in the Western Districts of the Ukrainian SSR

ORIG. PUB. : In-tu agrobiol. AN URSR, 1957, 7, 61-66

ABSTRACT : The utilization of a layer of perennial grasses in the forest steppe districts of the western regions of the Ukrainian SSR (according to experiments made by the Institute of Agrobiology, Academy of Sciences Ukrainian SSR) produced a higher yield of winter wheat and exerted a beneficial effect on the yields of subsequent crops in the rotation.. In 1952/53 the winter wheat yield on a layer of perennials (clover 60%, timothy 40%) averaged

CARD: 1/2

ORIG. PUB. :

ABSTRACT : 34.1 centners per ha. and spring wheat 20.7. The winter rye yield sown after summer wheat winter wheat was 3.2-4 centners per ha. higher than the rye yield sown after summer wheat.
--Ye.Zhukovskaya

CARD: 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical Cereals. M-1

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6259

Author : Kiyak, G. S.; Izdrik, V. M.
Inst : Acad. Sci. UkrSSR
Title : Methods of Buckwheat Sowing in the L'vovskaya Oblast'

Orig Pub : Pratsi in-ty agrobiol. AN UkrSSR, 1957, 7, 67-77

Abstract : Under the soil-climatic conditions of L'vovskaya Oblast' (experiments at the Agrobiological Institute, AS UkrSSR), buckwheat, when it is sown in continuous rows, develops faster and gives a yield of grain, which is greater by 1 - 3 cwt/ha than in wide-row planting. The best norm for sowing in continuous rows

Card 1/2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6259

is 80 kg/ha. In the case of wide-row sowing the best rate is 50 kg/ha.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722920017-1

Card 2/2

KIYAK, G. S.

USSR/Cultivated Plants - Technical Oleaceae, Sugar Plants M-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1666

Author : G.S. Kiyak
Inst : Not Given
Title : Some Problems in the Agrotechny of Winter Rape

Orig Pub : Pratsi In-tu agrobiol. AN USSR, 1957, 7, 84-91

Abstract : In order to secure high and stable crop-yields of winter rape in the western provinces of the Ukraine it is indispensable, on poszolic soils, to add manure in combination with mineral fertilizers. The introduction of N 30, P 40 and K 40, on the basis of 20 - 30 tons per hectare of manure, boosted the yield of seeds by 13-15 centners per hectare. The most favorable period of sowing is from 10 to 25 August. The norm of sowing the seeds on fertile soils should not be less than 8 - 10 kilograms per hectare (in large-row sowing with inter-rows of 45 cm.). Hilling is an aid to hibernation of the plants.

Card : 1/1

KIYAK, Grigoriy Stepanovich [Kyiak, H.S.], prof.; SAVITSKIY, K.A. [Savyts'kyi, K.A.], kand.sel'skokhoz.nauk, glavnyy red.; LUCHKO, O.S., otv. za vypusk; GURENKO, V.A. [Hurenko, V.A.], red.

[Experience in the cultivation of corn in the western regions of the Ukrainian S.S.R.] Dosvid vyroshchuvannia kukurudzy; v zakhidnykh raionakh URSR. Kyiv, 1959. 31 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.6, no.19). (MIRA 13:1)

1. Chlen-korrespondent AN USSR (for Kiyak). 2. Referent Tovaristva dlya poshirennya politichnikh i naukovikh znan' Ukrains'koi RSR (for Luchko).
(Ukraine, Western--Corn (Maize))

KIYAK, O.S. [Kyiak, H.S.]

Wheat in the western provinces of the Ukraine. Vistnyk AN URSR 30 no.5:46-50 My '59. (MIRA 12:9)

1. Chlen-korrespondent AN USSR.
(Ukraine, Western--Wheat)

MUSEROVICH, A.Ya.; KIYAK, G.S.

Bogs and vegetation of the Marunka Valley near Lvov, their utilization and improvement. Ukr.bot.zhur. 19 no.1:84-93 '62. (MIRA 15:4)

1. L'vovskiy sel'skokhozyaystvennyy institut, kafedra pochvovedeniya i agrokhimii.

(Lvov region--Swamps)

KIYAK, Grigoriy Stepanovich[Kyiak, H.S.]; PROSKURA, Il'ya Pavlovich; YUKHIMCHUK, F.P.[IUkhimchuk, F.P.], kand. sel'khoz. nauk, red.; LISOVICHENKO, Ya.V.[Lisovychenko, IA.V.], red.; POTOTSKAYA, L.A.[Potots'ka, L.A.], tekhn. red.

[Cultivation practices and production of forage lupine seed in western areas of the Ukraine] Agrotekhnika i nasinnytstvo kormovoho liupynu v zakhidnykh raionakh Ukrainy. Kyiv, Vydvo Ukrainskoi Akad. sel'skhosp. nauk, 1962. 75 p. (MIRA 16:5)

(Ukraine--Lupine)
(Ukraine--Seed production)

KIYAK, Grigoriy Stepanovich [Kyiak, H.S.], prof., doktor sel'khoz. nauk; BELOUSOVA, O.M. [Bielousova, O.M.], red.

[Plant growing] Roslynnytstvo. Kyiv, Urozhai, 1964. 559 p. (MIRA 17:11)

KIYAK, G.S.

Spring wheat in western provinces of the Ukraine. Zemledelie 27 no.4:45-47 Ap '65. (MIRA 18:4)

1. Chlen-korrespondent AN UkrSSR.

KIYAMOV, D. V.

"Air Pollution in the Vicinity of Cellulose-paper and Aluminum Industries."

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

KIYAMOV, F.A.

Treatment of skin tuberculosis in a dispensary. Zdrav. Tadsh. 10 no.5:38-41 '63. (MIRA 17:2)

1. Iz Tadzhikskogo respublikanskogo protivotuberkuleznogo dispansera.

RAKHMATOV, B.R., dotsent; KIYAMOV, F.A., vrach

Treatment of eczema, neurodermitis, and epidermophytosis with the ASD preparation. Zdrav. Tadzh. 7 no. 3:39-41 My-Je '60.
(MIRA 14:4)

1. If kafedry kozhnykh bolezney (zav. - dotsent L.M. Konigsberg) Stalinabadskogo meditsinskogo instituta imeni Abuali ibni Sino.
(SKIN--DISEASES) (TISSUE EXTRACTS)

KIYAMOV, F.A.

Organization of the control of fungous diseases in Kolkhozabad, Kurgan-Tyube, and Kirovabad Districts. Zdrav. Tadzh. 8 no.1:42-46 '61. (MIRA 14:3)

1. Iz Respublikanskogo kozhno-venerologicheskogo dispansera (glavnyy vrach - G.N.Korolevskiy).
(TAJIKISTAN--MEDICAL MYCOLOGY)

RAKHMATOV, B.R.; KIYAMOV, F.A.

Immediate effectiveness of treating tuberculosis of the skin with antibacterial preparations. Zdrav. Tadzh. 8 no.6:33-38 N-D '61. (MIRA 15:1)

1. Iz Tadzhikskogo meditsinskogo instituta imeni Abuali ibni Sino.
(SKIN--TUBERCULOSIS)

KIYAMOV, K.N.

Influence of wastes from woodpulp and paper production on health of the surrounding population. Trudy LSGMI no.5 41-69 '60. (MIRA 14:11)

(AIR--POLLUTION) (WOODPULP INDUSTRY--HYGIENIC ASPECTS)

KIYAMOV, K.K.

Influence of waste discharges from woodpulp and paper production on the sanitary condition of reservoirs. Trudy LSGMI no.58:181-213 '60. (MIRA 14:11)

(WATER--POLLUTION)
(WOODPULP INDUSTRY--HYGIENIC ASPECTS)

KIYAMOV, N. V.

BABAYANTS, R.A., professor; BATMANOVA, O.Ya., kand.med.nauk; VOLKOVA, N.V., kand.med.nauk; KIYAMOV, N.V., kand.med.nauk; LYKOVA, A.S., kand.med.nauk; MASOL'NIKOVA, T.K., kand.med.nauk; RUDNYKO, V.A., kand.med.nauk; TOMILINA, K.A., kand.med.nauk; SHISTOVSKIY, S.P., kand.med.nauk; KIRPICHEV, M.P., sanitarnyy vrach; MAKHINENKO, A.I., sanitarnyy vrach; OSHCHEPKOV, A.A., sanitarnyy vrach; PETROV, A.M., sanitarnyy vrach; ROSHAL', M.A., sanitarnyy vrach; SHEPELIN, O.P., sanitarnyy vrach

Sewage irrigation of fields and sanitation of natural waters. Gig. i san. 22 no.9:64-67 S '57. (MIRA 10:12)

1. Zaveduyushchiy kafedroy Obshchey Gigiyeny Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, chlen-korrespondent AMN SSSR (for Babayants)
(WATER SUPPLY WATER POLLUTION
sanitary protection of water reservoirs in use of sewage water for field irrigation)
(IRRIGATION
same)

KIYAN, Dmitriy Moiseyevich, insh.; BERESTOVOY, Ye.I., insh., red.; KHITROV, P.A., tekhn.red.

[Handbook for welders repairing locomotives] Spravochnik svarshchika po remontu lokomotivov. Moskva, Gos.transp. shel-dor.izd-vo, 1959. 335 p. (MIRA 12:6)
(Locomotives--Maintenance and repair) (Welding)

KRAYCHIK, M.M., kand.tekhn.nauk; TSKIPURISHVILI, V.B., kand.tekhn.nauk; Kiyan, D.M., inzh.

Analyzing the causes of failures of the welded structures of the rolling stock under the conditions of low work stresses. Trudy TSNII MPS no.260:36-44 '63. (MIRA 16:11)

KIYAN, N.I., tekhnik

Air cooled gun for arc welding in an inert gas atmosphere.
Svar. proizv. no.1:39 Ja '65. (MIRA 18:3)

L 7287-66 EWT(d)

ACC NR: AP5022961 SOURCE CODE: UR/0256/65/000/006/0044/0046

AUTHOR: Klyan, S.D. (Engineer, Captain)

ORG: None

TITLE: New methods for the calculation of instrumental altitude

SOURCE: Vestnik protivovozdushnoy oborony, no. 6, 1965, 44-46

TOPIC TAGS: aircraft performance, interceptor aircraft, altimeter, navigation aid, error correction

ABSTRACT: The interception of aerial targets is usually complicated by the difference in the instrumental and true altitudes of the aircraft. The existing methods for the recalculation of the instrumental altitude from the given absolute one contain essential errors. Consequently, the author proposes a new method for instrumental altitude calculation which was tested and found very efficient. Following a general theoretical formulation, the article presents all the necessary tables and nomograms for fast determination of the required altitude value. The procedure is illustrated on a specific example. Orig. art. has: 10 formulas, 2 figures, and 2 tables.

SUB CODE: AC, NG / SUBM DATE: none

Card 1/1

KIYAH, Ye.A., kand.istor.nauk

Role of trade unions in reconstructing and developing the machinery industry in the Ukraine (1943-1950). Trudy Khar'. insh.-ekon. inst. 8:87-110 '57. (MIRA 12:6)
(Ukraine--Machinery industry)
(Ukraine--Trade unions)

LYSENKO, V.G., kand. ist. nauk; EPSHTEYN, A.I., kand. ist. nauk; CHIRKOV, N.P., kand. ist. nauk; KIYAN, Ye.A., kand. ist. nauk; PLUGATAREV, P.G., kand. ist. nauk; POKROVSKAYA, Ye.N., kand. ist. nauk; DRONOVA, A.I., kand. ist. nauk; BLOKH, B.A., kand. ist. nauk; VORONINA, V.M., red.; LIMANOVA, M.I., tekhn. red.

[Outline history of the Kharkov Tractor Plant, 1931-1961] Ocherk istorii Khar'kovskogo traktornogo zavoda im. Ordonikidze, 1931-1961. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1962. 296 p. (MIRA 16:6)
(Kharkov—Tractor industry)

OSHACH, N.A.; KIYAN, Ye.F.; PRUDNIKOV, P.G.; MOSTOVENKO, V.G.

Production line for working barlike parts for room furniture.
[Suggested by Oshach, N.A.; Kiyan, Ye.F.; Prudnikov, P.G.; Mostovenko, V.G.]
Prom.energ. 12 no.10:21-22 O '57. (MIRA 10:10)
(Kiev--Furniture industry)

KIYANENKO, P., michman

Typewriter for radiomen. Voen. vest. 42 no.3:113-114 Mr '63.
(MIRA 17:1)

AKHTEROV, Iosif Samoylovich; KARAKIS, Irma Iosifovna; SVESHNIKOV, Oleg Aleksandrovich; KLEKOVKIN , M.P., red.; KIYANICHENKO, N.S., red.; LEUSHCHENKO, N.L., tekhn. red.

[Furniture for one-family apartments] Mebel' dlia kvartir odnosemeynogo zaseleniia. [By] I.S.Akhterov i dr. Pod red. M.P.Klekovkina. Kiev, Gosstroiizdat USSR, 1962. 192 p. (MIRA 17:1)

1. Akademiya budivnytstva i arkhitektury URSR. Instytut arkhitektury sporud. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury Ukr.SSR (for Klekovkin).

BUBLIK, Andrey Ivanovich [Bublyk, A.I.]; KRASNITSKIY, Mikhail Sergeyevich [Krasnyts'kyi, M.S.]; BOROVSKIY, Eduard Rudol'fovich [Borovs'kyi, E.R.]; KIYANICHENKO, N.S. [Kyianichenko, N.S.], red.; LEUSHCHENKO, N.L., tekhn. red.

[Use of glass pipes in the water piping in farm buildings] Sil's'kyi vnutrishnii vodoprovid iz skliannykh trub. Kyiv, Derzhbudvydav URSR, 1963. 30 p. (MIRA 17:1)

MEYTIN, Ya.M., inzh., red.; KIYANICHENKO, N.S., red.; YEREMINA, I.A., tekhn. red.

[New developments in the production of materials with a base of wood and synthetic resins] Novoe v proizvodstve materialov na osnove drevesiny i sinteticheskikh smol. Kiev, Gosstroiizdat USSR, 1963. 86 p. (MIRA 16:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny.
(Resins, Synthetic) (Furniture)

IOFFE, Oleg Zalmanovich; KIYANICHENKO, N.S., red.

[Practices in preparing and assembling large panels made of keramsit concrete] Opyt izgotovleniia i montazha krupnykh panelei iz keramzitobetona. Kiev, "Budivel'nik," 1964. 52 p. (MIRA 18:1)

SLIPCHENKO, P.S., glav. red.; KUCHERENKO, K.R., red.; FILONENKO, K.I., red.; LESNAYA, A.A., red.; ABYZOV, A.G., red.; LUDNIKOV, M.S., red.; VETROV, Yu.A., red.; GLADKIY, V.I., red.; GOLOSOV, V.A., red.; IZMAYLOV, V.G., red.; KANYUKA, N.S., red.; KAIPOV, E.A., red.; KLINDUKH, A.M., red.; KUSHNAREV, N.Ye., red.; LUYK, A.I., kand. tekhn. nauk, red.; NEMENKO, L.A., red.; RYBAL'SKIY, V.I., red.; SITNIK, I.P., red.; FEDOSENKO, N.M., red.; FILAKHTOV, A.L., kand. tekhn. nauk, red.; KHILOBOCHENKO, K.S., red.; VORONKOVA, L.V., red.; KIYANICHENKO, N.S., red.

[Construction industry: technology and mechanization of the construction industry; the economics and organization of construction] Stroitel'noe proizvodstvo: tekhnologiia i mekhanizatsiia stroitel'nogo proizvodstva; ekonomika i organizatsiia stroitel'stva. Kiev, Budivel'nyk, 1965. 180 p. (MIRA 18:4)

1. Nauchno-issledovatel'skiy institut stroitel'nogo proizvodstva. 2. Nauchno-issledovatel'skiy institut stroitel'nogo proizvodstva (for Luyk, Filakhtov).

GAYDUKOV, Nikolay Sergeyevich; KIYANICHENKO, N.S., red.

[Fire prevention in residential and public buildings] Pozharnaia bezopasnost' zhilykh i obshchestvennykh zdanii. Kiev, Budivel'nyk, 1965. 179 p. (MIRA 18:8)

YEGUPOV, Vyacheslav Konstantinovich. Prinimala uchastiye KOMANDRINA, T.A.; KIYANICHENKO, M.S., red.

[Calculating buildings for strength, rigidity, and vibration] Raschet zdanii na prochnost', ustoichivost' i kolebaniia. Kiev, Budivel'nyk, 1965. 253 p. (MIRA 18:7)

KUZNETSOV, Aleksey Ivanovich; KIYANITSA, A.P., red.

[Heroes do not die] Geroi ne umiraiut. Alma-Ata, Kazakh. gos. izd-vo, 1963. 167 p. (MIRA 18:5)

ZHMUDENKO, A.S., inzh.; FARAFONOV, I.I., kand.tekhn.nauk; KIYANITSA, G.I., inzh.; FILATOV, L.V., inzh.

Efficient use of bits in the boring of holes with an air drill in granite quarries. Izv.vys.ucheb.zav.; gor.zhur. 7 no.12:38-42 '64. (MIRA 18:2)

1. Kiyevskiy ordena Lenina politekhnicheskiy institut (for Zhmudenko). 2. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut ugol'noy, rudnoy, neftyanoy i gazovoy promyshlennosti UkrSSR (for Farafonov, Kiyanitsa, Filatov). Rekomendovana kafedroy tekhnologii i mekhanizatsii gornykh rabot Kiyevskogo politekhnicheskogo instituta.

KIYANITSA, P., general-leytenant voysk svyazi; PETUKHOV, D., polkovnik

Provide continuous operative communication. Voen. vest. 40 no.11:81-84 N '60. (MIRA 14:11)
(Communications, Military)

KOSENKO, P., polkovnik; KIYANITSA, P., general-leytenant voysk svyazi

Communications on the march and in a frontal encounter (replies to the article of Col. Grankin published in "Voennyi Vestnik," No.), 1961). Voen. vest. 41 no.9:96-98 S '61. (MIRA 15:1)
(Communications, Military)

KIYANITSA-GUSLISTAYA, N.M.[Kyianytsa-Huslysta, N.M.]; PISARENKO, G.S.[Pysarenko, H.S.], otv. red.; BILOSHTAN, A.P., kand. filolog. nauk, red.-leksikograf; IEVSEENENKO, M.P., red.; LISOVETS', O.M.[Lysovets', O.M.], tekhn. red.

[Russian-Ukraininan dictionary on mechanics. 11,000 terms] Rosiis'ko-ukrains'kyi slovnyk z mekhaniky. 11 000 terminiv Kyiv, Vyd-vo AN URSR, 1963. 340 p. (MIRA 16:9)

1. Chlen-korrespondent AN Ukr.SSR (for Pisarenko).
(Russian language--Dictionaries--Ukrainian)
(Mechanics--Dictionary)

KORNOUKHOV, Nikolay Vasil'yevich, akademik; BELYANKIN, F.P., akademik, otv. red.; STREL'BITSKAYA, A.I., doktor tekhn. nauk; AMIRO, I.Ya., kand. tekhn. nauk, red.; DLUGACH, M.I., kand. tekhn. red.; YEREMENKO, V.S., kand. tekhn. nauk, red.; NIKITIN, Yu.P., kand. tekhn. nauk, red.; PAVLOV, I.G., kand. tekhn. nauk, red.; POLYAKOV, P.S., kand. tekhn. nauk, red.; KIYANITSA-GUSLISTAYA, N.N., mlad. nauchn. sotr., red.; ORLIK, Ye.L., red.; LISOVETS, A.M., tekhn. red.

[Selected works on structural mechanics] Izbrannye trudy po stroitel'noi mekhanike. Kiev, Izd-vo AN Ukr.SSR, 1963. 321 p. (MIRA 17:2)

1. Akademiya nauk Ukr.SSR (for Kornoukhov, Belyankin).

KIYANITSYA, E.M., inf.

Coke Industry

Lighting problems of shops in coke-chemical plants exposed to dangers of explosion. Nauk. zap. LPI No. 1, 1947.

Monthly List of Russian Accessions, Library of Congress, December 1952, UNCLASSIFIED.

NEYMAN, Leonid Robertovich; KALANTAROV, Pavel Lazarevich; ZAYTSEV, I.A., red.; KIYANITSYNA, M.S., red.; SOBOLEVA, Ye.M., tekhn.red.

[Theoretical principles of electrical engineering. In three parts] Teoreticheskie osnovy elektrotekhniki. V trekh chastiakh. Izd.5., perer. Moskva, Gos.energ.izd-vo. Pt.3. [Electromagnetic field theory] Teoriia elektromagnitnogo polia. 1959. 231 p. (MIRA 12:9)
(Field theory)

HEYMAN, Leonid Robertovich; KALANTAROV, Pavel Lazarevich; KAPLYANSKIY, A.Ye., prof., retsenzent; ZAYTSEV, I.A., red.; KIYANITSYNA, N.S., red.; BERKHMIKOVA, V.F., red.; SOBOLEVA, Ye.M., tekhn.red.

[Theoretical fundamentals of electrical engineering; in three parts] Teoreticheskie osnovy elektrotekhniki, v trekh chastiakh. Izd.5., perer. Moskva, Gos.energ.izd-vo. Pt.1. [Physical fundamentals of electrical engineering and the theory of d.c. circuits] Fizicheskie osnovy elektrotekhniki i teoriia tsepei postoiannogo toka. 1959. 296 p. (MIRA 12:7)
(Electric engineering)

MEYMAN, Leonid Robertovich; KALANTAROV, Pavel Lazarevich; ZAYTSEV, I.A., red.; KIYANITSYNA, M.S., red.; SOBOLEVA, Ye.M., tekhn.red.

[Theoretical principles of electric engineering; in three parts] Teoreticheskie osnovy elektrotekhniki; v trekh chastiakh. Izd.5., perer. Moskva, Gos.energ.izd-vo. Pt.2. [Theory of alternating-current circuits] Teoriia tsepei peremennogo toka. 1959. 444 p. (MIRA 12:10)

(Electric circuits)

KIYANOV, I.; LEYNER, F.; MALEYEV, L., dots. kand. tekhn. nauk.

One trend in modernising portal cranes. Mor. flot 18 no.10:11-12 O '58.
(MIRA 11:11)

1. Starshiy inshener otdela mekhanizatsii Zhdanovskogo porta (for Kiyanov, Leyner). 2. Zhdanovskiy metallurgicheskiy institut (for Maleyev).
(Cranes, derricks, etc.)

KIYANOV, I.; LEYNER, F.; MALEYEV, L., kand. tekhn. nauk, dotsent

Loading and unloading of asphalt and bitumen by grab cranes. Mor. flot 23 no.10:14-16 O '63. (MIRA 16:10)

1. Glavnyy tekhnolog tresta Donbassprommontazh (for Kiyanov). 2. Nachal'nik TSentral'nykh remontno-mekhanicheskikh masterskikh Zhdanovskogo porta (for Leyner). 3. Zhdanovskiy metallurgicheskiy institut (for Maleyev).
(Bituminous materials—Transportation)
(Cranes, Derricks, ect.)

MALEYEV, L., kand.tekhn.nauk, dotsent; KIYANOV, I.

Important potentiality for improving the performance of cranes with clamshell gear. Mor. flot 21 no.4:6-11 Ap '61. (MIRA 14:4)

1. Zhdanovskiy metallurgicheskiy institut (for Maleyev). 2. Starshiy inzh. Zhdanovskogo porta (for Kiyanov).
(Cranes, derricks, etc.)

KIYANOV, I.M., inzhener (Stantsiya Zilovo).

Reinforced concrete beams. Put' i put.khoz. no.9:12 S '57.
(MIRA 10:10)

1. Zamestitel' nachal'nika distantsii puti.
(Bridges, Concrete)

KIYANOV, I.M.

Wooden pipes used under conditions existing in Transbaikalia. Put' i put. khoz. no.9:18-19 S '58. (MIRA 11:9)

1. Zamestitel' nachal'nika distantsii st. Zilovo Zabaykal'skoy dorogi.
(Transbaikalia--Railroads--Earthwork) (Pipes, Wooden)

KIYANOV, I.M.

Bridge supports with a slant. Put'i put.khoz. 5 no.5:37 My '61.
(MIRA 14:6)

1. Zamestitel' nachal'nika Zilovskoy distantsii Zabaykal'skoy dorogi.
(Railroad bridges--Maintenance and repair)

KIYANOV, I.M.

We use reinforced concrete for wall plate beams. Put' i put.khoz. 6 no.3:37 Mr '62. (MIRA 15:3)

1. Zamestitel' nachal'nika distantsii puti, stantsiya Zilovo, Zabaykal'skoy dorogi.
(Railroad bridges)

KRIVORUCHKO, Nikolay Zakharovich, kand. tekhn. nauk; SLUSHAYENKO, A.M., dotsent, retsenzent; YELISEYEV, F.G., dots., retsenzent; LEBNET, K.S., dots., retsenzent; OLUKHOV, V.A., dots., retsenzent; KIYANOV, P.I., insh., retsenzent; TSIMIDAKOV, V.M., insh., retsenzent; DOROFEYEV, V.G., insh., retsenzent; KALEDENKOV, S.S., insh., retsenzent; KOROLEV, A.N., insh., retsenzent; LOKSHIN, Kh.A., insh., retsenzent; FIRSOV, S.I., insh., retsenzent; SHAKURSKIY, K.D., insh., retsenzent; UTKIN, A.V., tekh., retsenzent; VALETOV, A.I., insh., red.; BOBROVA, Ye.N., tekhn. red.

[Operation, management, and repair of rolling stock] Vagonnoe khozialstvo. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 319 p. (MIRA 14:11)

1. Kafedra "Konstruktsiya, remont i ekspluatatsiya vagonov" Rostovskogo instituta inzhenerov zheleznodorozhnogo transporta (for all except Valetov, Bobrova).
(Railroads—Rolling stock)

KIYANOV, V.I.; PARIS, Ye.I. (Leningrad, D-104, Artilleriyskaya ul., 1, kv.718)

"Post stamp" forms in free dermatoplasty. Vest. khir. 92 no.6· 111-112 Je '64. (MIRA 18:5)

1. Iz khirurgicheskoy kliniki (nachal'nik - prof. T.Ya. Ar'yev) Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova, Leningrad.

KIYANOV, V.I. (Leningrad P-101, Sytninskaya ul., d.14, kv.13)

Organization of therapeutic and preventive services for patients with traumas in a rural district hospital. Ort. travm. i protez. 23 no.10:55-58 O '62. (MIRA 17:10)

1. Iz kafedry organizatsii zdravookhraneniya (zav.- prof. S.Ya. Freydlin) 1-go Leningradskogo meditsinskogo instituta imeni akademika Pavlova (rektor - A.I. Ivanov).

KIYANOVA, V. S.

BALL', Yu.M.; KIYANOVA, V.S.; STRELINA, T.D.

Observations of rodents in irrigated fields in Rostov Province. Zool.zhur. 33 no. 6:1390-1395 N-D '54. (MIRA 8:2)

1. Rostovskiy gosudarstvennyy universitet im. V.M.Molotova.
(Rostov Province--Rodentia)

KREMNEV, L.Ya.; ABRAMZON, A.A.; KIYANOVSKAYA, Yu.L.

Mechanism of mass transfer in a liquid - liquid heterogeneous system when stirred. Dokl. AN SSSR 150 no.4:836-838 Je '63. (MIRA 16:6)

1. Predstavleno akademikom P.A. Rebinderom.
(Mass transfer) (Liquids)

ABRAMZON, A.A.; KIYANOVSKAYA, Yu.L.; [illegible], I.Ya.

Concentration of a transferable substance in the reaction zone of a liquid-liquid system. Zhur. prikl. khim. 37 no.10:2314-2316 O '64. (MIRA 17:11)

KIYANOVSKIY, L.Z.

Electromechanical device for the automatic determination of the maximum differential curve in potentiometric titration. Neftepor. i neftekhim. no.10:40-41 '63. (MIRA 17:2)

1. Nauchno-issledovatel'skiy institut po transportu i khraneniyu nefti i nefteproduktov.

L 12939-65 EWT(1)/EPR/EWA(m)-2/EWA(h) Pe-4/Pab WW
ACCESSION NR: AP4045916 S/0119/64/000/009/0007/0008

AUTHOR: Kiyanovskiy, L. Z. (Engineer)

TITLE: Extension of the rate-of-flow measurement range of an electro-mechanical sensor with a tensometric transducer

SOURCE: Priborostroyeniye, no. 9, 1964, 7-8

TOPIC TAGS: rate of flow meter, tensometer, rate of flow measurement

ABSTRACT: With a low stiffness of the tensometric spring, the rate-of-flow sensor cannot ensure proper measurement at high stream speeds; with a high stiffness, the sensor sensitivity is too low at low speeds. To overcome this difficulty, a two-spring sensor is suggested: the springs are so designed that at low speeds, a more delicate spring operates; at higher speeds, both springs link mechanically and operate jointly with a much higher stiffness. Equations describing the springs' operation are developed. The two-spring design promises

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L 12910-65
ACCESSION NR: AP4045916

either a scale extension through two different scale factors or a suppressed zero, depending on the spring stiffness relation and the placing of tensometers cemented to the springs. Orig. art. has: 5 figures and 17 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: IE NO REF SOV: 002 OTHER: 000

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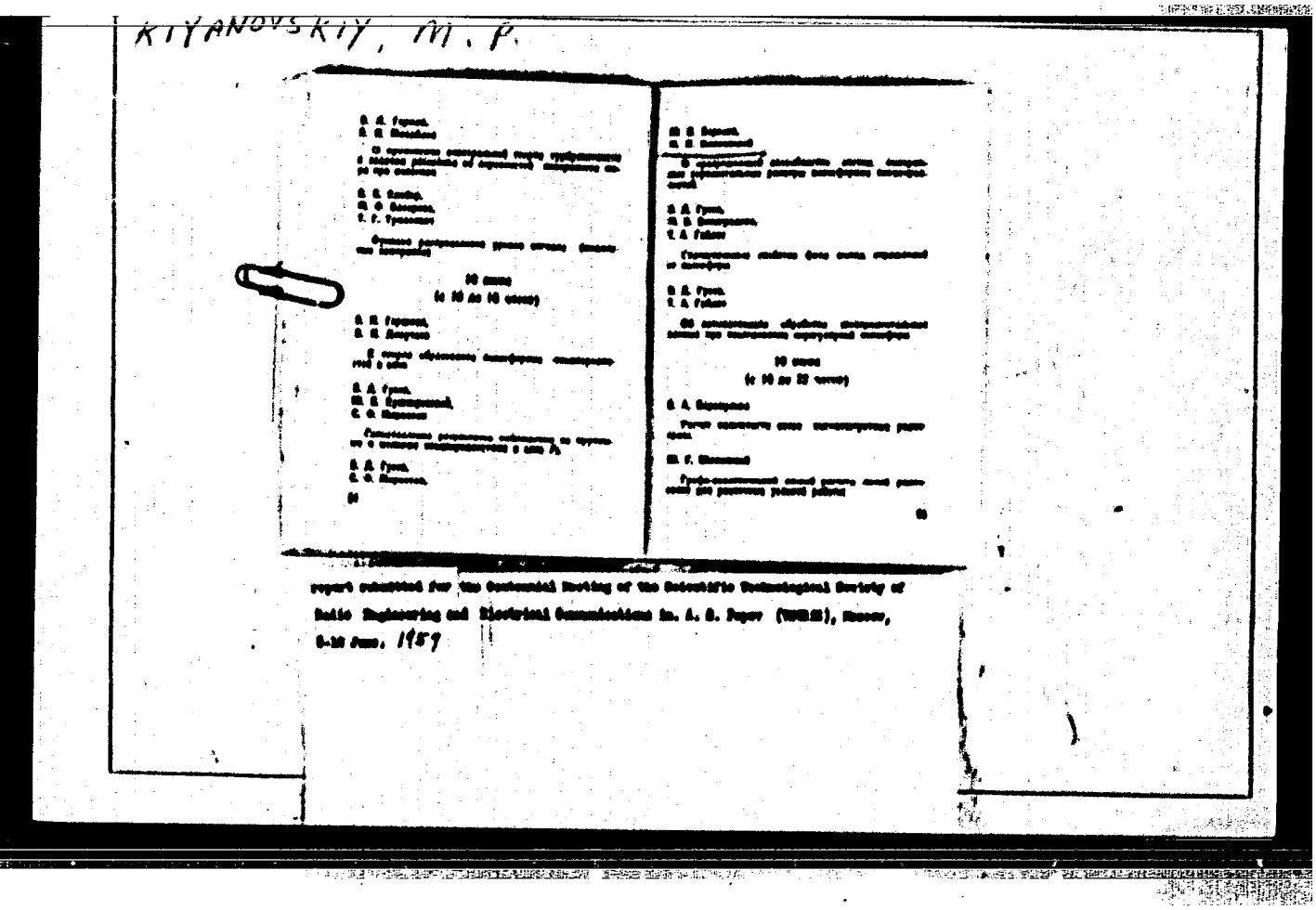
KIYANOVSKIY, L.Z.

Expanding the measurement limit of flow speed by means of an electromechanical transducer with a strain converter. Pritorostroenie no.9:7-8 S '64. (MIRA 17:11)

GUSEV, V.D.; DRACHEV, L.A.; MIRKOTAN, S.F.; BERKZIN, Yu.V.; KIYANOVSKIY, M.P.; VINOGRADOVA, M.B.; GAYLIT, T.A.

Structure and motions of large unhomogeneities in the F_2 layer of the ionosphere. Dokl.AN SSSR 123 no.5:817-820 D '58. (MIRA 12:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Predstavleno akademikom N.N. Bogolyubovym.
(Ionosphere)



KIYANOVSKIY, M. P.

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (NTORE), Moscow, 8-10 June. 1957

89772

9.9110 (also 1041, 1046)

S/169/61/000/002/026/039
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 42, # 20295

AUTHORS: Gusev, V. D., Mirkotan, S. F., Drachev, L. A., Berezin, Yu. V., Kiyanovskiy, M. P.

TITLE: Results of the Investigation of the Parameters of Large-Scale Inhomogeneities of the Ionosphere by the Phase Method

PERIODICAL: V sb.: "Dreyfy i neodnorodnosti v ionosfere", No. 1, Moscow, AN SSSR, 1959, pp. 7-21 (English summary)

TEXT: The method of measuring and processing the materials of observations of the large-scale inhomogeneities in the F2-layer of the ionosphere is described in detail. The time variations of the phase of the pulse signal reflected by the F2-layer of the ionosphere were recorded by three spaced stations. The records are being processed by the correlation method with electronic computers. The following inhomogeneity parameters were determined: apparent drift speed V', characteristic speed V'_c, the speed of chaotic variations V_c, the actual drift speed v_d, the parameters of the so-called "characteristical" ellipse, which determine the anisotropy degree of inhomogeneities, their dimensions and time of

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S/169/61/000/002/026/039
A005/A001

Results of the Investigation of the Parameters of Large-Scale Inhomogeneities of the Ionosphere by the Phase Method

"broadening", and parameter V_0/V_d allowing the estimation of the part of the chaotic variations. The results are presented of investigations in the period from January 1957 to May 1958. It is shown that inhomogeneities in the horizontal direction are anisotropic; the direction of the larger dimension (the major axis of the characteristical ellipse) approximately coincides with the meridian; the average ratio of the major and minor dimensions (the eccentricity of the ellipse) is about 2; this value and the direction of the major axis are nearly independent of the time during 24 hours; the average value of the major axis is about 500 km by night and about 200 km by day. The values of drift speed of inhomogeneities mostly found are 8 - 10 km/min; the direction of drift is: in the evening and by night northward, by day and in the morning southward. The "broadening" of inhomogeneities proceeds more rapid by day than by night. The speed of chaotic variations V_0 exceeds the drift speed on the average by 1.5 times. A comparison is carried out of the results obtained with the values formerly known. It is shown that the characteristics of the large-scale and small-scale inhomogeneities (anisotropy, drift, chaotic variations) agree with each other, which points out

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Results of the Investigation of the Parameters of Large-Scale Inhomogeneities of the Ionosphere by the Phase Method

the possibility of the connection and common origin of the processes controlling the formation and motion of all inhomogeneities in the ionosphere. There are 15 references.

E. Kazimirovskiy

Translator's note: This is the full translation of the original Russian abstract.

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9.9100

69005

AUTHORS: Gusev, V.D., Mirkotan, S.F., Berezin, Yu.V., Kiyanovskiy, M.P.

S/055/59/000/04/011/026
B014/B005

TITLE: On the "Resolving Power" of Systems for the Measurement of Dimensions of Ionospheric Inhomogeneities

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, Nr 4, pp 105-115 (USSR)

ABSTRACT: Ionospheric inhomogeneities and motion may be studied by observing the reflection of radio signals by the ionosphere. At a given distribution of the three observation points on the earth's surface, the amounts of inhomogeneities determined by this system show an upper and a lower limit. The present paper deals with the definition of these limits and the estimate of error of the measurement results. The authors describe the apparatus by which the phase shifts of the reflected signal were measured. Figure 1 shows a block diagram of this measuring apparatus. Figure 2 shows the position of the measuring triangle. Details of the measuring method are given. Further, the authors develop formulas for determining the horizontal extension of ionospheric inhomogeneities from the measurement values, and for estimating the error. The investigation shows that the following limits hold for the extension Δ of measurable inhomogeneities at a given right observation triangle

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On the "Resolving Power" of Systems for the Measurement of Dimensions of Ionospheric Inhomogeneities

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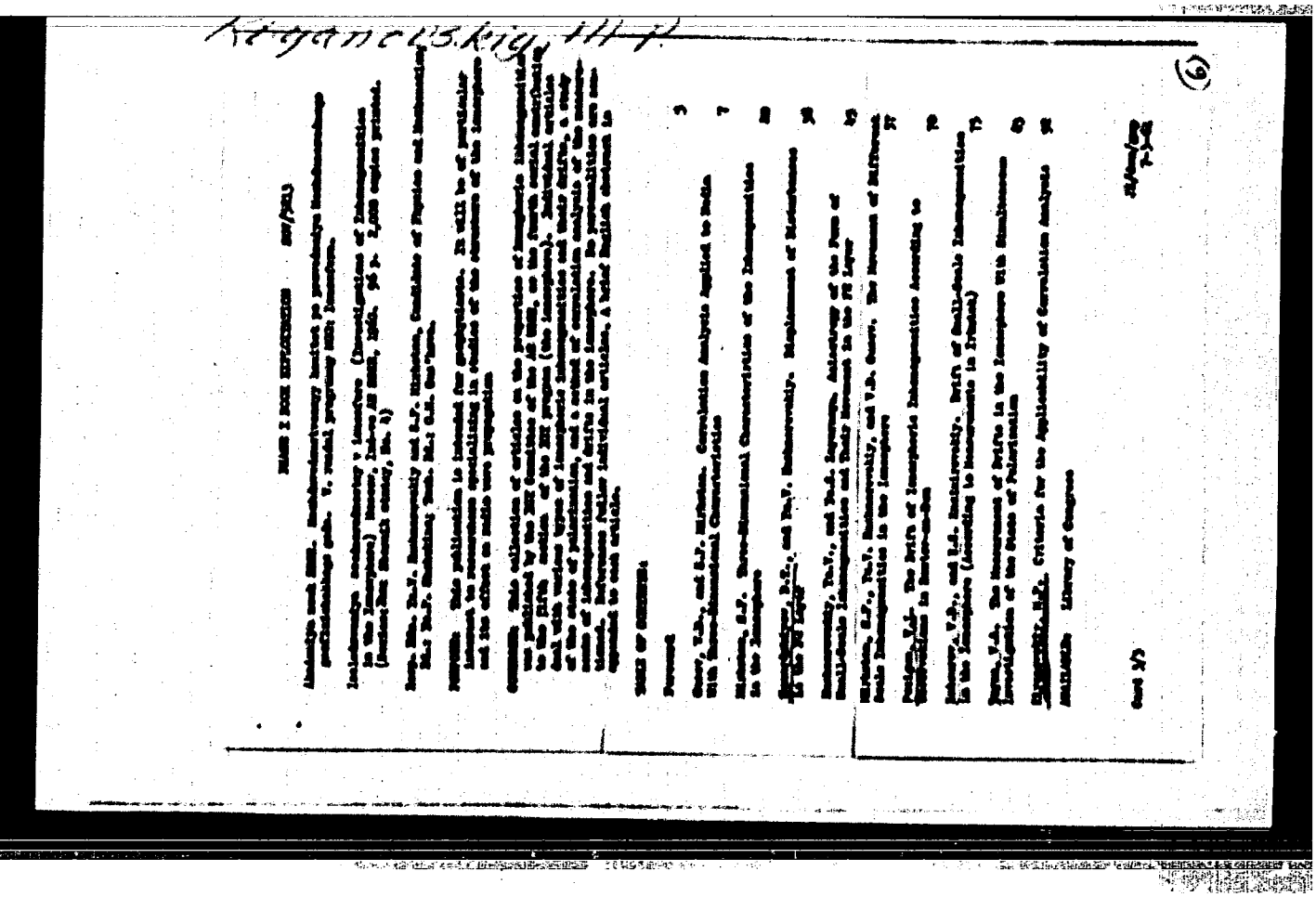
with the altitude S_0: $2.8S_0 \leq \Delta \leq 46S_0$. In a similar way, the following limits hold for the distance S of two observation points: $2.8S \leq \Delta \leq 23S$. There are 7 figures, 1 table, and 10 references, 7 of which are Soviet.

ASSOCIATION: Kafedra rasprostraneniya radiovoln (Chair of Propagation of Radio Waves)

SUBMITTED: March 18, 1959

Card 2/2



69455

9.9100

S/139/60/000/01/031/041
E192/E382

AUTHORS: Gusev, V.D., Mirkotan, S.F., Kiyanovskiy, M.P. and Berezin, Yu.V.

TITLE: The Correlation Methods of Investigating (Ionospheric) Fluctuations in the Presence of a Slowly-changing Component

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, Nr 1, pp 178 - 190 (USSR)

ABSTRACT: The phase of a signal reflected from the ionosphere can be represented as:

$$\Sigma(t) = \Phi(t) + \varphi(t) \qquad (1)$$

where $\Phi(t)$ is the daily variation of the phase due to the changes of the ionisation in the ionospheric layers during day and night and $\varphi(t)$ is a random stationary function due to the presence of irregularities in the ionosphere and due to its motion. The function $\varphi(t)$ is of direct interest in the investigation of the ionosphere. However, it cannot be measured directly. It is therefore necessary to separate $\varphi(t)$ by some method. An attempt is made to devise such a procedure. Figure 1 shows a typical recording of the phase function

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The Correlation Methods of Investigating (Ionospheric) Fluctuations in the Presence of a Slowly-changing Component

$\Sigma(t)$ for a signal reflected from the ionosphere. It is seen that the recording contains slow but large variations which are represented by $\Omega(t)$. Comparatively rapid random changes $\varphi(t)$ having a period of approximately 15-30 min are superimposed on $\Omega(t)$. It is seen that the spread of $\Omega(t)$ is much greater than that of $\varphi(t)$. It is required to determine the function:

$$R_{ik}(\tau) = \frac{\overline{\varphi_i(t)\varphi_k(t+\tau)} - \overline{\varphi_i t}\cdot\overline{\varphi_k(t+\tau)}}{\sqrt{\overline{\varphi_i^2(t)} - \overline{\varphi_i(t)}^2 \;\; \overline{\varphi_k^2(t+\tau)} - \overline{\varphi_k(t+\tau)}^2}} \qquad (2)$$

where the horizontal top lines denote statistical averaging for $i, k = 1, 2, 3$. Normally, the averaging can be done over a finite time interval and the function can be

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The Correlation Methods of Investigating (Ionospheric) Fluctuations in the Presence of a Slowly-changing Component

determined with an error $\delta\rho_T$ (Eq 2a). However, directly it is only possible to determine the correlation function expressed by:

$$\rho_{\Sigma_1\Sigma_{2\tau}}(\tau) = \rho_{\Sigma_{12}}(\tau) = \frac{(\tilde{\Phi}_1 + \varphi)(\tilde{\Phi}_{2\tau} + \varphi_{2\tau}) - (\tilde{\Phi}_1 + \varphi_1)(\tilde{\Phi}_{2\tau} + \varphi_{2\tau})}{\sqrt{[(\tilde{\Phi}_1 + \varphi_1)^2 - (\tilde{\Phi}_1 + \varphi_1)^2][(\tilde{\Phi}_{2\tau} + \varphi_{2\tau})^2 - (\tilde{\Phi}_{2\tau} + \varphi_{2\tau})^2]}} \quad (3)$$

where $\varphi_1(t) = \varphi_1$, $\varphi_2(t + \tau) = \varphi_{2\tau}$ and so on

($i = 1$, $k = 2$). By restricting the validity of Eq (2) it can be written as Eq (4), where the symbols are defined on p 180. It is now assumed that a certain operation

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Δ is applied to the function $\Sigma(t)$, such that:

$$\Delta\Sigma(t) = \Delta\Phi(t) + \Delta\varphi(t) .$$

Provided the conditions of Eqs (8) and (9) are fulfilled, $\Delta\Sigma(t)$ can be expressed by Eq (10), which determines the so-called "glancing average" taken over an interval μ. The functions G and F in Eq (10) are the so-called glancing averages for Φ and φ, while $\Delta\Phi$ and $\Delta\varphi$ are the deviations of Φ and φ from the glancing averages. The correlation function for the transformed quantities $\Delta\varphi_1(t)$ is defined by Eq (11). This can be written as Eq (13) provided the notation defined by Eqs (12) is adopted. The expressions entering into Eq (13) are given by the integrals of Eqs (14) - (17). Consequently, Eq (13) can be written as Eq (18). It is seen that by applying the Δ-operation to $\varphi_1(t)$ the correlation given by Eq (18) differs from the function $\rho_{12}(\tau)$.

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The Correlation Methods of Investigating (Ionospheric) Fluctuations in the Presence of a Slowly-changing Component

The magnitude of the discrepancy between the correlation functions depends on the shape of $\rho_{12}(\tau)$ and on the choice of μ. The relative error in determining $\rho_{12}(\tau)$ from Eq (18) can be represented by Eq (19). Now the significant portions of the correlation function for the ionospheric irregularities can be approximated either by Eq (20) or by Eq (21). The meaning of τ_o in these equations can be seen from Figure 3. By employing Eq (18) it is possible to investigate the error for the cases represented by Eqs (20) and (21). The relative error for the case represented by Eq (20) is illustrated in Figure 4, while the case of Eq (21) is shown in Figure 5. The shape of the functions ρ_Δ and τ for the cases represented by Eqs (20) and (21) are illustrated in Figures 6 and 7. If it is assumed that $\xi(t)$ can be approximated by a portion of a sinusoid, it is found that in order to fulfil the conditions of Eqs (8) and (9), the

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parameter μ should obey the following expression:

$$\tau_{0.5} \ll \mu \ll T_A .$$

From the investigation it is concluded that by employing the method of the "glancing averages" it is possible to eliminate the slow changes when investigating the statistical properties of the fluctuations. The method can be useful in the investigation of the fluctuations of ultrahigh-frequency signals and in the study of the drift of small-scale inhomogeneities. The slow changes can be eliminated provided:

$$\tau_{0.5} \ll \mu \ll T_A$$

where $\tau_{0.5}$ is the correlation radius of the fluctuations and T_A is the average period of the slow

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fluctuations. In the typical case it is found that $\mu = 60$ min. Consequently, the necessary condition is fulfilled since $\tau_{0.5} = 3$ min and $T_A = 12$ to 24 hours.
There are 8 figures, 3 tables and 6 references, 5 of which are Soviet and 1 English.

ASSOCIATION: Moskovskiy gosuniversitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

SUBMITTED: March 17, 1959

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9,9100 (and 1041)

20332
S/188/60/000/006/005/011
B101/B204

AUTHOR: Kiyanovskiy, M. P.

TITLE: Testing of applicability of correlation analysis and of similarity method

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 3, fizika, astronomiya, no. 6, 1960, 38-45

TEXT: The author aimed at deriving simple criteria for the applicability of correlation analysis when measuring inhomogeneities and drifts in the ionosphere. He proceeds from the correlation condition $Q(\xi, \eta, \tau) = \text{const} = \beta$. Q is the correlation coefficient, ξ, η, τ are translations in the Cartesian system of coordinates x, y, and the time t. Further, the additional assumption is made that the cross sections of Q are approximated by similar concentric ellipsoids. $Q = f(u)$ is written down. f is an arbitrary function corresponding to the condition $|f| \leq 1$, u is the linear positively determined quadratic form with respect to ξ, η, τ. By substituting $\xi = r \cos\alpha$, $\eta = r \sin\alpha$, where r denotes the distance

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between a pair of points of observation forming the basis, α - the angle of the basic direction in the system of coordinates chosen, one obtains $u = Ar^2 - 2Dr\tau + C\tau^2$ (1). The coefficients A, D, C depend on α. The cross section $\varphi = \text{const} = \beta$ corresponds to $u = \text{const} = P$. With $\alpha = \text{const}$ $u = P$ is an ellipse, which satisfies the conditions $\delta = AC - D^2 > 0$; $\Delta = \begin{vmatrix} A & -D & 0 \\ -D & C & 0 \\ 0 & 0 & P \end{vmatrix} \neq 0$; $\Delta(A + C) < 0$ (2). Herefrom, the conditions are derived to which the coefficients of u must correspond: 1) A, C, D are independent of the current coordinates x, y, t; 2) the relations (2) hold, where $A > 0$, $C > 0$; (3); 3) the coefficients A_β, D_β, C_β belonging to level β are proportional to the coefficients obtained in the case of another level. For the physical parameters the following is derived: the characteristic velocity $V_c' = r/\tau_s = \sqrt{C/A}$; and the apparent velocity $V' = r/\tau' = C/D$. $\tau_s^2 = \tau_\beta^2 + \tau_1\tau_2$; $\tau' = 0.5(\tau_1 + \tau_2)$. The significants

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of τ_β, τ_1, τ_2 may be seen from Fig. 1. Herefrom the following conditions result: 1) V'_0 describes an ellipse;

2) the front of V' is straight;

3) V'_0 and V' are independent of x, y, t; (4)

4) V'_0 is real;

5) $|V'| > V'_0$;

6) V'_0 and V' of different levels are equal.

These criteria require complicated calculations. In the following, simple methods are derived by using the diagram (Fig. 1) for auto-correlation $\varrho_{\alpha\beta}$ and cross correlation $\varrho_{\beta 3}$. A) Using (4,3) - (4,6) the following is derived: 1) τ_s, τ', τ_{05} and other characteristic times are independent of x, y, t; (5). 2) τ_s is real; 3) $\tau_s > |\tau'|$; 4) τ_s and τ' calculated for different levels are equal. B) For testing the rectilinearity of the front of V' and the shape of V'_0, the author proceeds

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from the basis lengths r_1, r_2, r_3, and writes down the condition:

$$\tau_3'\left[\lambda_1(\tau_1'\mu_2 - \tau_2'\mu_1) - \mu_1(\tau_1'\lambda_2 - \tau_2'\lambda_1)\right] - \tau_1'\left[\lambda_3(\tau_1'\mu_2 - \tau_2'\mu_1) - \mu_3(\tau_1'\lambda_2 - \tau_2'\lambda_1)\right] = 0 \quad (6).$$

$\lambda_1 = r_1\sin\alpha_1$; $\mu_1 = r_1\cos\alpha_1$. α_1 are the angles of the basis directions in an arbitrary Cartesian system of coordinates. The bases are assumed to be connected by $\mu_2 = \mu_3 + \mu_1$; $\lambda_2 = \lambda_3 + \lambda_1$. Herefrom the criterion of rectilinearity $\tau_1' - \tau_2' + \tau_3' = 0$ (7) is obtained. The demand that V_0' describes an ellipse is satisfied in the case of $\tau_{S1} + \tau_{S3} > \tau_{S2}$; $\tau_{S2} > |\tau_{S3} - \tau_{S1}|$ (8). C) For the testing by means of level straight lines, the following is derived from (1) for level β: $Ar^2/C - 2Dr\tau_{1,2}/C = \tau_\beta^2 - \tau_{1,2}^2$ (9). In the system of coordinates $X = \tau_{1,2}$, $Y = \tau_\beta^2 - \tau_{1,2}^2$ the following pair of points is obtained: $(\tau_1; \tau_\beta^2 - \tau_1^2)$ and $(\tau_2; \tau_\beta^2 - \tau_2^2)$. Through this pair, the straight line

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$Y = kX + b$ (10) is laid, $k = -2\tau'$, $b = \tau_s^2$. From (5,2) and (5,3) follows the condition $b > 0.5|k|$ (11). By means of the numerical criteria (5), (7), and (8), the applicability of the correlation method to given data may be tested. For testing the applicability of the similarity method criteria (6) or (7) suffice. However, here, four independent bases, i.e, four points of observation are necessary. The author thanks V. D. Gusev for discussions and help. There are 1 figure and 4 Soviet-bloc references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet, Kafedra rasprostraneniya radiovoln
(Moscow State University, Department of the Propagation of Radio-waves)

SUBMITTED: April 6, 1960

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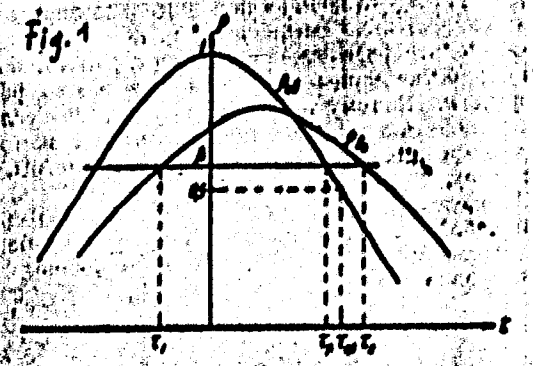
B101/B204

Testing of applicability...

Fig. 1



Card 6/6

S/203/61/001/005/017/028
A006/A101

9,9100

AUTHOR: Kiyanovskiy, M. P.

TITLE: The correlation method in square approximation

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 750 - 759

TEXT: The correlation method in its present form presents some difficulties for investigations of the ionosphere due to the use of some rather strong initial assumptions. A variant of the method is suggested where these assumptions are made weaker. The author considers that square approximation should be used, regarding it as an approximation of that portion of the outline which is adjacent to the basic lines, where the characteristics of similarity are actually measured, and which meets all the requirement to the applicability of the given approximation. The contour of the spatial similarity will then be formally described by a central curve of the second order, which can be not only an ellipse but also a hyperbola and a pair of straight lines. Calculation formula are derived for determining the characteristics of the investigated diffraction image in a simple form. The author analyzes the use and sense of characteristics serving to describe the properties of a diffraction image, in particular, such as the rate of chaotic

Card 1/2

GUSEV, V.D.; KIYANOVSKIY, M.P.

Use of the correlation method. Izv.vys.uch.zav.; fiz. no.4:171-173 '62. (MIRA 15:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Ionospheric research)

L 13589-63 EWT(1)/EWG/EEC-2/ES(v) AFFTC/ASD/AFMDC/ESD-3/APGC
Pe-4/Pl-4/Po-4/Pq-4 PI-2/CM
ACCESSION NR: AP3004014 S/0203/63/003/004/0699/0702

AUTHOR: Klyenovskiy, M. P.

TITLE: On a method of determining drift velocity in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 3, no. 4, 1963, 699-702

TOPIC TAGS: ionospheric drift velocity, three-dimensional velocity measurement, vertical ionospheric drift

ABSTRACT: The S. N. Mitra method (Proc. Inst. Electr. Engrs., 1946, v. 3, 96, 441) for the two-dimensional measurement of ionospheric winds by simultaneous recording at three different points of the fading of reflected waves is expanded for the case of three-dimensional measurement. The measurement of both magneto-ionic components at one point is proposed as a means of determining the third (vertical) wind component. Since magneto-ionic component reflection regions are separated both vertically and horizontally, it may be assumed that a reflecting screen can be substituted for the ionosphere. Then, the distance between component reflection regions can be used as an additional (to the ground) base for the determination of the vertical wind component. The vertical component of this base is the true difference in altitudes at which magneto-ionic component reflection takes place; these altitudes can be calculated using the E. Schmerling method (J. Atmos.

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and Terr. Phys., 1958, 12, 8). The horizontal component of the base is the sum of the horizontal deflection of the components and can be calculated by the J. Scott method (Proc. IRE, 1950, 38, 1057). The three-dimensional method can be used during the space diversity observation of large and medium ionospheric inhomogeneities. Measurements performed with this method gave the following data on ionospheric drift: 1) drift velocity, 9—13 km/min; 2) inclination (from the vertical), 100—120°; 3) azimuth, 240° (calculating north from the meridian); and 4) vertical component of drift velocity, 2—7 km/min. "The author thanks A. A. Shmeinn and Ye. G. Gritskov for their assistance in the measurements and data processing and Ye. D. Rusova for a number of valuable suggestions." Orig. art. has: 2 figures and 5 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet. Fizicheskiy fakul'tet (Moscow State University, Physics Faculty)

SUBMITTED: 18Jan63 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AS NO REF SOV: 006 OTHER: 005

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KIYANOVSKIY, M.P.; MEDNIKOVA, N.V.

Relation between geomagnetic and ionospheric disturbances at middle latitudes. Geomag. i aer. 3 no.4:769-771 Jl-Ag '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet, fizicheskiy fakul'tet i Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

GUSEV, V. D.; MINKOTAN, S. F.; KIYANOVSKIY, M. P.; BEREZIN, I. S.

"Phase Investigations of the Ionosphere Drifts."

summary to be presented at 13th Gen Assembly, IUGG, Berkeley, Calif, 19-31 Aug 63.

KIYANOVSKIY, M.P.

Method for determining the drift velocity in the ionosphere. Geomag. i aer. 3 no.4:699-702 Jl-Ag '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet, fizicheskiy fakul'tet.

L 8874-65 EWT(1)/EWG(v)/FCC/EEC-4/EEC(t)/EWA(h) Po-4/Pe-5/Pq-4/Pae-2/Peb/P1-4
RAEM(a)/ESD(t)/AFWL/SSD/ESD(c) GW/WS
ACCESSION NR: AP4046296 S/0203/64/004/005/0962/0964

AUTHOR: Kiyanovskiy, M. P.

TITLE: The measurement of ionospheric drift

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 5, 1964, 962-964

TOPIC TAGS: ionosphere, ionospheric drift, upper atmosphere, magneto-ionic splitting

ABSTRACT: In the investigation of nonhomogeneities and movements (drifts) in the ionosphere, it remains unclear what correspondence there is between the observed movement of the diffraction pattern and observed ionospheric drifts. This paper discusses one of the probable reasons why, when the present experimental methods and analytical procedures are employed, the observed diffraction pattern at the earth cannot be used to determine the drift rate in the ionosphere itself. At present, two methods are used for measuring drift by radiosonde observations. A review and bibliography on this subject are readily available (B. H. Briggs, Ionospheric Drifts, URSI, XIII Gen. Ass., London, 1960; Yu. V. Kushnerevskiy and S. F. Mirkotan, Geomagn. i aeronomiya, 1961, 1, No. 4, 453). Kiyanovskiy has now proposed an experiment which makes it possible to compare certain characteristics of movement of the diffraction pattern and ionospheric drift, thus providing a more

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ACCESSION NR: AP4046296

rigorous approach to the problem of measuring ionospheric drifts. The method involves the separate recording of the two magnetic-ionic components. Magneto- [illegible] splitting can yield experimental data for solving the above-stated problem; [illegible] method is described. Orig. art. has: 1 formula.

ASSOCIATION: Fizicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet [illegible] Department, Moscow State University)

[illegible] 10Apr64 ENCL: 00 SUB CODE: ES

[illegible] 012 OTHER: 004

[illegible] 2/2

L 1339-66 EWT(d)/FSS-2/EWC(k)-2 AS/WS-4

ACCESSION NR: AP5020997 UR/0203/65/005/004/0687/0692
550.388.2

AUTHOR: Klyanovskiy, M. P. 44,55

TITLE: The correlation characteristics of magneto-ionic components during phase measurements

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 687-692

TOPIC TAGS: ionospheric radio wave, radio wave propagation, phase measurement, signal analysis

ABSTRACT: The correlation function is being increasingly used for the analysis and processing of ionospheric data in general and those related to wind changes in particular. Measurements deal either with one of the magneto-ionic components of the signal reflected from the ionosphere or with the unsplit signal. The present author discusses a study made on the correlation characteristics describing the behavior of ordinary, extraordinary, and unsplit signals. The article also describes the switching adaptor of the phase polarization measuring device which permits the simultaneous recording of all three signals. Detailed results concerning correlations are given for phase variations (with 2 v accuracy) recorded during vertical ionospheric probing. They show that differences in

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radiation characteristics are due to the various paths of the individual components within the layer. When the operating frequency of radio probing is 20—30% off the critical frequency of the layer, the path differences become insignificant for phase measurements with a 2π accuracy. Results also confirm that ordinary component fluctuations lead those in the extraordinary component in time. The correlation radii of the components increase with the approach of the reflection region toward the maximum of the layer; it is not clear how this result should be interpreted. "The author thanks A. A. Shagina, V. G. Gritskov, L. N. Balakina, and N. P. Limnik for carrying out most of the measurements and processing the data." Orig. art. has: 6 figures and 1 table. [08]

ASSOCIATION: Moskovskiy gosudarstvennyy universitet, Fizicheskiy fakul'tet (Physics Department, Moscow State University)

SUBMITTED: 04Sep64 ENCL: 00 SUB CODE: ES, EC

NO REF SOV: 005 OTHER: 002 ATD PRESS: 4092

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L 29175-66 EWT(1)/FCC/EWA(h) GW

ACC NR: AP6018884 SOURCE CODE: UR/0203/65/005/005/0901/0906

51
B

AUTHOR: Anisimova, O. L.; Kiyanovskiy, M. P.; Shagina, A. A.; Yudina, T. M.

ORG: Physics Faculty, Moscow State University (Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Program of machine computation of moving medians and deviations from them

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 5, 1965, 901-906

TOPIC TAGS: ionosphere, F layer, computer, computer program, computer calculation/ Strela-4 computer

ABSTRACT: In ionospheric investigations it is possible to use moving medians computed for different parameters characterizing the state of the ionosphere. This paper describes a program prepared for computation of the moving median values of the critical frequency of the F2 layer and computation of deviations of the observed critical frequencies from the medians. The program also is suitable for determining other parameters. The program was prepared on a "Strela-4" computer of the Computation Center of Moscow State University on the basis of hourly values f_oF2. A peculiarity of the program is the presence of a large number of logarithmic operations and only one arithmetical formula. The authors express thanks to V. A. Chernyagy, N. O. Prokopenko, and A. A. Mashil'skiy for their aid and attention. Orig. art. has: 1 formula. [JPRS]

SUB CODE: 04, 09 / SUBM DATE: 28Nov64 / ORIG REF: 002

Card 1/1 PB UDC: 550.388.2

L-2D465-66 EWT(1)/FCC/EWA(h) GW

ACC NR: AP6012058 SOURCE CODE: UR/0203/65/005/005/0932/0934

38
32 B

AUTHOR: Kiyanovskiy, M. P.

ORG: Physics Faculty, Moscow State University (Moskovskiy gosudarstvennyy universitet Fizicheskiy fakul'tet)

TITLE: Evaluation of vertical velocity of ionospheric drift from measurements of phase variations of magneto-ionic components

SOURCE: Geomagnetism i aeronomiya, v. 5, no. 5, 1965, 932-934

TOPIC TAGS: ionosphere, geomagnetism

ABSTRACT: Many experiments have shown that in simultaneous measurements of the ordinary (o) and extraordinary (x) magneto-ionic components of signal variation the o-components usually outrun the variations of the x-components. This must mean that the ionosphere has a vertical drift component directed downward. Values of 50-150 m/sec have been found for the apparent velocity of vertical movement. For computing the vertical apparent velocity V_z it is necessary to know V_y — the horizontal apparent velocity along the line of the geomagnetic meridian, V_L — the apparent velocity along the polarization base and the orientation of this base. V_y is determined from spaced three-point observations. The base length L is the distance between regions of reflection of magneto-ionic components; its orientation is determined by the angle

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of inclination of the base to the vertical. Height-frequency characteristics are obtained each 15 minutes. The duration of a period of recording of phase variations of both components was from 1 to 7 hours. All measurements were for the F2 layer. Observations were made during day and at night. L was determined for each h'-f characteristic and averaged for the duration of observations. Velocity V_L was determined. Polarization-phase measurements give $V_L \approx 10$ km/min for day-time. Angle of inclination of L various from -45 to -60°. The author thanks A. A. Shaginaya, V. G. Gritskov, L. N. Balakinaya, N. P. Linnik, and T. M. Lutskovaya for carrying-out the measurements and work. The author also thanks V. D. Gusev for the outstanding discussions of his observations. Orig. art. has: 3 figures and 1 table. [JPRS]

SUB CODE: 04, 08 / SUBM DATE: 28Nov64 / ORIG REF: 006 / OTH REF: 003

L 20459-66 EWT(d)/EEC(k)-2 RB/WB-2

ACC NR: AP6006662 SOURCE CODE: UR/0203/66/006/001/0087/0096

AUTHORS: Kivanovskiy, M. P.; Petukhov, Y. P.

69
11 B

ORG: Moscow State University, Department of Physics (Moskovskiy gosudarstvennyy universitet, Fizicheskiy fakul'tet)

TITLE: On the effect of changes in the state of radio wave polarization on recording of the variations of their phases

SOURCE: Geomagnetism i aeronomiya, v. 6, no. 1, 1966, 87-96

TOPIC TAGS: radio wave propagation, antenna polarization, electric field, phase analysis, phase modulation, radio wave

ABSTRACT: The phase changes of a radio wave entering a radio receiver were analyzed as a function of the incident wave polarization on the antenna. To this end, a pair of mutually perpendicular antennae are considered at an angle γ_p to the major axis of the polarization ellipse. An expression is then derived for the sum of the two antennae potentials given by

$$u_{\Sigma}(t) = F_0 \cos(\omega t + \varphi_0 + \psi_0 + \gamma_1 + \gamma_{10}).$$

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ACC NR: AP6006662

where γ indicates a phase lead and F_p is the recorded signal amplitude. This shows that the polarized phase depends only on the orientation of the polarization ellipse and is independent of the ratio of its semi-axes. This characteristic is then studied experimentally by using a radio polarometer, phase meters, and a receiving transmitting antenna pair. The angle ψ and the ratio of the semi-axes e were measured. The mean value of e varied between 1.4 and 2.2 and that of ψ, $\pm 40°$. A list of special problems is then given, associated with the polarization-phase effect. Among these are statistically inhomogeneous media and cutoff polarization in the ionosphere. The authors express their deep gratitude to A. A. Shagina and V. G. Gritskov for erecting the apparatus, to L. M. Kalakina, M. P. Kimnik, and T. M. Litskova for reducing the data, to Yu. A. Prozorov, A. V. Machil'skiy, M. G. Prokopenko, V. A. Chernyagov, and T. A. Gavlit for kindly reporting on the stability of the generator, and to G. M. Yanovskiy for helping in erecting the main antenna system. Orig. art. has: 7 formulas and 5 figures.

SUB CODE: 17, 20/ SUBM DATE: 24Dec64/ ORIG REF: 007

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