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S/689/61/000/000/018/0[illegible]
D205/D303

Reduction of warping of welded ...

in this case the partial hardening occurring during welding does not induce residual stresses near the joint. Various parameters of plasticity were measured for welded and non-welded specimens, the results indicating that the welded samples possess almost the same plasticity as the non-welded. The fatigue limit at cyclical bending (20×10^6 cycles) was, however, superior in the non-welded samples (12 kg/mm^2) as compared with the welded (5 kg/mm^2). Conclusions: To lower stresses and prevent warping, articles made of the D20 alloy should be quenched in a heated medium. In order to increase the strength of welded constructions they should be welded in hardened or hardened and aged state. There are 1 figure and 5 tables.

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[illegible](v)/EWP(k)/EWP([illegible])/EWP(1)

ACC NR: AP6029966 (A, N) SOURCE CODE: UR/0413/66/000/015/0152/0152

INVENTOR: Isayev, V. I.

ORG: none

TITLE: A cylindrical grinder for working conical objects. Class 67, No. 184646

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 152

TOPIC TAGS: grinding, grinding machine, metal polishing

ABSTRACT: This Author Certificate presents a cylindrical grinder for working conical objects, consisting of a base supporting a pantograph head (with an immobile rest) and a chuck for the object (see Fig. 1). To increase the efficiency in working objects of great length, the pantograph head is made in the form of two polishing chucks. The knuckle mechanism for the cross feed of these chucks is kinematically connected by a chain transmission to the mechanism serving the longitudinal feed of the

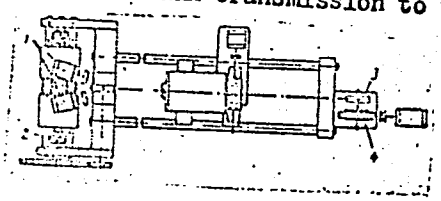

Fig. 1. 1 - pantograph head; 2 - knuckle mechanism; 3 - chain mechanism; 4 - mechanism for the longitudinal feed of the object chuck

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UDC: 621.924.5-434.5

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

L 09259-67
ACC NR: AP6029966

object chuck. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 22May63

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

24835

S/103/61/022/008/003/015
D274/D302

26.3110

AUTHOR: Isayev, V.K. (Moscow)

TITLE: L.S. Pontryagin's principle of maximum and the optimum programming of rocket thrust

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 8, 1961, 986-1001

TEXT: This paper was presented to the 6-th scientific conference at the MFTI on April 15, 1960, and to the Moscow seminar on non-linear problems of automatic control at the IAT AS USSR in June 1960. The use of Pontryagin's principle in the optimization of rocket flight gives a better understanding of the nature of the processes involved than the use of methods based on the classical Euler-Lagrange equations; works based on these equations give inadequate treatment to boundary conditions; Yu.A. Gorelov (Rez. 4, O dvukh klassakh ploskikh ekstremal'nykh dvizheniy rakety v pustote. Prikl. matem. i mekh., v. 24, no. 2, 1960). It is shown that by means of the maximum principle, the solution of the problem under

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consideration can be obtained in the form of a finite parametric relationship between initial conditions, the law of optimum control, and the boundary conditions. Two dimensional rocket-flight is considered, in the absence of aerodynamic forces, and with g = const. The equations of motion are

$$\dot{x}_i = f_i(x, u) \quad (i = 1, \ldots, 5), \qquad (1)$$

where x_1 and x_2 are the horizontal and vertical velocities, x_3 - the dimensionless mass, x_4 and x_5 the range and height, $u_1 = \frac{P(t)}{P_{max}}$ the dimensionless thrust, u_2 the inclination of the thrust-vector. $u = \{u_1(t), u_2(t)\}$. The following limitation is imposed on the thrust

$$0 \leqslant u_1(t) \leqslant 1 \qquad (2)$$

(This limitation can be extended to $\beta_0 \leqslant u_1(t) \leqslant 1$). The following problem is formulated: determine the optimum control (if it exists) $u = \{u_1, u_2\}$ which carries system (1) from a fixed initial position, and after a fixed time $t = T$, into a (closed and convex) set $G(x)$,

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D274/D302

L.S. Pontryagin's principle...

the functional $S = \sum_{i=1}^{n} c_i x_i(T)$ assuming at $t = T$ its maximum (minimum) value, (condition (2) being taken into consideration). The Mayer problem of optimization and the Lagrange problem reduce to the optimization of S. According to the principle of maximum, the necessary (and in the case of linear systems also sufficient) condition that the function u be max-optimal (min-optimal) is that it satisfy the condition of minimum (maximum). In the following, max-optimum control is considered. In accordance with the condition of minimum, u is chosen in such a way that the Hamiltonian H (or its adjoint H*) attain, at any t ($0 \leqslant t \leqslant T$), an absolute minimum on (2) for values of the variables equal to the values of u. The function H* attains an absolute minimum under certain conditions. One of these conditions cannot be obtained by classical theory. A system of non-linear differential equations, describing the max-optimum motion, is obtained. Boundary conditions are given for two cases which are of practical importance; these boundary conditions are illustrated by examples. The direction of the thrust is found to be characterized by a constant inclination of the thrust vector

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L.S. Pontryagin's principle...

in the powered phase. All the max-optimum u are determined by means of finite operations, without integrating the equations of motion. For every optimum u, the integration can be carried out in elementary functions. The foregoing reasoning is readily extended to space (3-dimensional) flight. The variational problem is a generalization of the plane variational problem, and a theorem on max-optimum u_1 also applies. Thus the problem of absence of variable-thrust phases in optimum trajectories is solved for the space case. In appendices the theorem on max-optimum u_1 is proved: u_1 is always found to be on the boundaries of the domain (2). There are 6 figures and 13 references: 5 Soviet-bloc and 8 non-Soviet-bloc. The references to the 4 most recent English-language publications read as follows: A. Miele, J. Capellari: Topics in Dynamic Programming for Rockets. Zeitschrift für Flugwissenschaften, v. 1, no. 1, 1959. G. Leitman: On a Class of Variational Problems in Rocket Flight. Journ. Aero/Space Sci., v. 26, no. 9, 1959. S. Ross: Composite Trajectories Yielding Maximum Coasting Apogee Velocity. ARS Journal, v. 26, no. 11, 1959. A. Miele: An Extension of the Theory of the Optimum Burning Program for the Level Flight of a Rocket Powered

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D274/D302

L.S. Pontryagin's principle...

Aircraft. Journ. Aeronaut. Sci., v. 24, no. 12, 1957. V.D. Fried, J. Richardson: Optimal Rocket Trajectories. Journ. Appl. Phys., vol. 27, no. 8, 1956.

SUBMITTED: June 10, 1960

Card 5/5

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V. K.

Dissertation defended at the Institute of Automation and Telemechanics for the academic degree of Candidate of Technical Sciences: 1962

"Use of the L. S. Pontryagin Maximum Principle for a Single Class of Optimal Control Tasks."

Vestnik Akad Nauk, No. 4, 1963, pp. 119-145

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.K. (Moskva)

Addition to the paper "L.S. Pontriagin's maximum principle and optimum programming of rocket thrust." Avtom. i telem. 23 no.1: 127 Ja '62. (MIRA 15:1)

(Automatic control) (Rockets (Aeronautics))

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V. K. (Moskva); SONIN, V. V. (Moskva)

Concerning a certain nonlinear problem on optimum control. Avtom. i telem. 23 no.9:1117-1129 S '62. (MIRA 15:10)

(Automatic control) (Guided missiles)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V. K., KURYANOV, A. I., and SONIN, V. V.,

"On the application of the maximum principle to rocket flight problems"

report to be submitted for the 14th Congress Intl. Astronautics Federation, Paris, France, 25 Sep-1 Oct 63

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.K. (Moskva); SONIN, V.V. (Moskva)

Modification of Newton's method for the numerical solution of boundary value problems. Zhur. vych. mat i mat fiz. 3 no.6:1114-1116 N-D '63. (MIRA 17:1)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

KUZMAK, G.Ye.; ISAYEV, V.K.; DAVIDSON, B.Kh.

Optimum conditions for the motion of a point of variable mass in a uniform central field. Dokl.AN SSSR 149 no.1:58-61 Mr '63. (MIRA 16:2)

1. Predstavleno akademikom A.A.Dorodnitsynym.
(Automatic control) (Gravitation)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

DAVIDSON, B.Kh.; ISAYEV, V.K.; SONIN, V.V. (Moscow):

"Optimum regimes of motion of a variable mass particle with limited power along nearly circular orbits."

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

KUZMAK, G. Ye.; LAVRENKO, N. Y.; ISAYEV, V. K.; SONIN, V. V.

"The linearized theory of optimal multi-impulsive travers. The problem about optimal rocket flight."

report submitted for 15th Intl Astronautical Cong, Warsaw, 7-12 Sep 64.

Comn for Space Research USSR

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L 8784-65 ESS-2/EWT(1)/EPA(b)/FS(v)-3/EWG(v)/EWA(d)/EWA(1) Po-4/Pe-5/Pq-4/Pg-4
IJP(c)/ESD(dp) GW
ACCESSION NR: AP4043493 S/0293/64/002/004/0553/0566

AUTHOR: Isayev, V. K.; Sonin, V. V.; Davidson, B. Kh.

B

TITLE: Optimum conditions for the motion of a point of a variable mass with limited power in a homogeneous central field

SOURCE: Kosmicheskiye issledovaniya, v. 2, no. 4, 1964, 553-566

TOPIC TAGS: optimum motion condition, homogeneous central field, variable mass body, Pontryagin maximum principle, p trajectory, optimum exhaust velocity, optimum thrust

ABSTRACT: This article is a continuation of the authors' studies (Avtomatika i telemekhanika, v. 22, no. 8, 986, 1961 and v. 23, no. 9, 1117, 1962) concerning the properties of an optimum motion of a body of a variable mass in a central, homogeneous gravitational field. The qualitative study of the structure of the optimum control of the thrust N and the exhaust velocity c is carried out on the basis of Pontryagin's maximum principle and under the assumption that these control parameters satisfy the inequalities

$$0 \leqslant N \leqslant N_{max},$$

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$$0 < c_{min} \leq c \leq c_{max} \quad (1)$$

Depending on the type of integral curve (derived from the optimum motion equations) called a p-trajectory, which can be represented by either an ellipse, circle, or two coinciding straight lines, the character of the programming of the thrust

$$u_t = N / N_{max},$$

and the exhaust velocity c is investigated. In the case of elliptic p-trajectories, the trajectory of motion is divided into two parts: a) the acceleration trajectory with continuous control of the thrust force b) and the trajectory with discontinuous (pulse) control of the thrust force, in which the problem of optimum programming of the exhaust velocity $c(\tau)$ is analyzed. A similar analysis of the optimum programming is made for other types of p-trajectories. The optimum motion of a body of a variable mass is analyzed when the first of the inequalities of (1) holds, but there are no constraints upon the exhaust velocity. The system of equations describing the optimum motion is written, which decomposes into the system of pure motion and the system of the expenditure of mass. Using relations derived from

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ACCESSION NR: AP4043493

the solution of the first system for the solution of the flight problem with the minimum expenditure of mass, the boundary-value problem is formulated. The analytic solution obtained for this problem makes it possible to synthesize the optimum control for this case. Orig. art. has: 68 formulas.

ASSOCIATION: none

SUBMITTED: 30May63 ATD PRESS: 3100 ENCL: 00

SUB CODE: MA, SV NO REF SOV: 006 OTHER: 012

Card 3/3

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50 c

L 41182-65 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(1) Pf-4
ACCESSION NR: AP5004677 S/0115/64/000/009/0058/0059

70
18
B

AUTHOR: none

TITLE: Fourth scientific and technical conference on "Cybernetics for the improvement of measurement and inspection methods"

SOURCE: Izmeritel'naya tekhnika, no. 9, 1964, 58-59

TOPIC TAGS: cybernetics, electric measurement, electric quantity instrument, digital computer, electronic equipment, electric engineering conference

ABSTRACT: The conference was held 1-4 July at the All-Union Scientific Research Institute of Metrology by the Section of Electrical Measurements of the Council on the Problem of "Scientific Instrument Making" of the State Committee on Coordination of Scientific Research Work in the USSR together with the All-Union Scientific Research Institute of Electrical Measurement Instruments and the Leningrad Regional Administration of the Scientific and Technical Division of the Instrument Making Industry. More than 400 delegates from 29 cities of the country participated. Fifty-seven reports were heard and discussed. Reports were given by: P. V. NOVITSKIY (Leningrad)--"Definition of the Concept of Informational Error in Measurement and its Importance in Practical Use" and "On the Problem of the Average Informational Criterion of Accuracy Throughout the Entire Scale of an Instrument"; Ya. A.

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ACCESSION NR: AP5004677

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KUPERSHMIDT (Moscow)--"On Determination of the Criteria of Accuracy for Measurement Devices"; S. M. MANDEL'SHTAM (Leningrad)--report on a new criterion of accuracy of measurement instruments; P. F. PARSHIN (Leningrad)--report on optimization when using Fourier transforms on electronic digital computers; S. P. DMITRIYEV, G. Ya. DOLGINTSEVA and A. A. IGNATOV (Leningrad)--proposal of a new method for solving problems of optimum filtering for non-stationary random signals and interference; I. B. CHELPANOV--"Calculation of the Dynamic Characteristics of an Optimum Complex Two-Channel System which Uses Signals from a Position Meter and from a Speed Meter"; R. A. POLUEKTOV (Leningrad)--"Optimum Periodic Correction in the Measurement of Continuous Signals"; S. P. ADAMOVICH (Moscow)--"Analysis and Construction of Devices for Correction of Non-linearity and Scaling for Unitary Codes; G. V. GORELOVA (Taganrog)--"A Method for Statistical Optimization in Graduating the Scales of Electrical Measuring Instruments"; M. A. ZEMEL'MAN (Moscow)--"Analog-Digital Voltage Converter with Automatic Error Correction"; B. N. MALINOVSKIY, V. S. KALENCHUK and I. A. YANOVICH (Kiev)--"Automatic Monitoring of the Parameters of the Electrical Signals of Complex Radio and Electronic Equipment"; V. P. PEROV (Moscow)--"Operational Cybernetics as an Independent Scientific Specialization"; Ye. N. GIL'BO (Leningrad)--"On the Problem of Effective Non-linear Scales"; A. I. MARKELOV (Moscow)--"Devices for Preliminary Processing of the Results of Measurements Presented in the Form of

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ACCESSION NR: AP5004677

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Graphic Recordings For Subsequent Introduction of the Information into Universal Digital Computers"; O. M. MOGILEVER and S. S. SOKOLOV (Leningrad)--"On a Method for Reducing Excess Information"; T. V. NIKOLAYEVA (Leningrad)--"A Device for Temporal Discretization of Continuous Signals"; A. A. LYOVIN and M. L. BULIS (Moscow)--"Optimization of the Transmission of Telemetric Information as a Means for Raising the Efficiency and Eliminating Interference"; D. E. GUKOVSKIY (Moscow)--"On a Statistic Approach to the Detection of Events in Automatic Inspection"; M. I. LANIN (Leningrad)--"Method for Calculating the Holding Time of Communications in a Centralized Inspection System or Constant Servicing Time"; O. N. BRONSHTEYN, A. L. RAYKIN and V. V. RYKOV (Moscow)--"On a Single-Line Mass Service System with Losses"; V. M. SHLYANDIN (Penza)--report on circuit designs for direct compensation electrical digital measuring instruments; A. N. KOMOV (Novocherkassk)--report on a new method for compensation of digital bridges; M. N. GLAZOV (Leningrad)--report on the problem of voltage-to-angular rotation conversion; V. S. GUTNIKOV (Leningrad)--"Methods for Construction of Frequency Capacitance Pickups with a Linear Scale"; R. Ya. SYROPYATOVA and R. R. KHARCHENKO (Moscow)--report on the determination of the amplitude-frequency and phase characteristics of PFM and PWM modulators; Ye. I. TENYAKOV (Novocherkassk)--"The Phototransistor as a Switch for Electrical Measurement Purposes"; N. V. MALYGINA (Leningrad)--a report on ways for making universal equipment for measurement of current, voltage and power; P. P. ORNATSKIY and V. I. ZOZULYA (Kiev)--reports on the construction of static voltmeters, wattmeters and

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phase meters; A. V. TRIKHANOV, I. G. SMYSHLYAYEV, N. I. SABLIN, V. M. RAZIN and V. A. GORBUNOV (Tomsk)--report on a device for automatic processing of the measurements of vibration amplitude of pneumatic hammers; L. K. RUKINA and V. G. KNORRING (Leningrad) --report on the development of a digital compensator for measuring pressure, force, etc.; N. B. DADUKINA (Leningrad)--report on a method for constructing frequency pickups for gas analysis; Ye. M. KARPOV, V. A. BRAZHNIKOV and B. Ya. LIKHTTSINDER (Kuybyshev)--reports on analysis and recording of boring speeds; Yu. V. PSHENICHNIKOV (Kuybyshev)--"A High Speed Voltage-to-Digital Code Converter for ac Pickups"; G. P. VIKHROV and V. K. ISAYEV (Vilna)--"A Highly Accurate Digital Peak-to-Peak Voltmeter"; and S. M. PERSIN (Leningrad)--"A Low Level Analog-Digital Voltage Converter."

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE, EC

NO REF SOV: 000 OTHER: 000 JPRS

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Card 4/4

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

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[illegible]

[illegible]

AUTHOR: Isayev, V. K. (Moscow); Sonin, V. V. (Moscow)

TITLE: Computational aspects of the problem of optimal flight as a boundary-value problem

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. [illegible], no. [illegible], [illegible]

TOPIC TAGS: flight mechanics, optimal flight, boundary value problem, modified [illegible]

ABSTRACT: [illegible] Newton [illegible] solving boundary-value problem [illegible] equations [illegible] by the authors (Zhurnal, vych. mat. i matem. [illegible] solving the problem of [illegible] central gravitational field [illegible] [illegible] the mass will be minimal. The [illegible] solution of the defined problem. The [illegible]

End

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAIEV, F.P. (Kiev)

Special features of Mayer's variational problem in rocket dynamics. Avtom. i telem. 26 no.7:1161-1168 Jl '65.

(MIRA 18:8)

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L 28856-66 EWP(m)/EWT(d)/EWT(1)/EWT(m)/T/EWA(d) IJP(c) GW/WW/JW/JWD/JT

ACC NR: AP6018653 SOURCE CODE: UR/0103/65/026/007/1161/1168

AUTHOR: Isayev, V. K. (Moscow)

ORG: none

TITLE: Some features of the Mayer variational problem in rocket dynamics

SOURCE: Avtomatika i telemekhanika, v. 26, no. 7, 1965, 1161-1168

TOPIC TAGS: optimal control, rocket flight

ABSTRACT: The article is based on material used in a report presented by the author at the 15th International Astronautical Congress in Warsaw on 11 September 1964. The author uses the maximum principle to investigate some features of the Mayer variational problem in the dynamics of a variable-mass point. The article presents the results of an investigation of so-called special control, including sections on special control in a homogeneous plane-parallel field, on the combination of special and boundary optimal controls, and on a special exhaust velocity control. There is a brief discussion of sliding regimes and switching conditions in optimal power-limited rocket flight. Orig. art. has: 27 formulas. [JPRS]

SUB CODE: 13, 22 / SUBM DATE: 30Dec63 / ORIG REF: 013 / OTH REF: 006

Card 1/1 UDC: 629.191

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.M.

Modern flowsheets for ore treatment in placer dredging. Trudy Unipromedi no.2:228-237 '57. (MIRA 11:11)
(Placer mining) (Ore dressing)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

CHAADAYEV, N.A.; ISAYEV, V.N.; MONAKHOV, V.A.; BONDARENKO, A.S., kapitan 1 ranga zapasa, red.; MARCHENKO, V.G., red.; DANILOVA, Z.S., red.-leksikograf; BUKOVSKAYA, N.A., tekhn. red.

[Concise French-Russian dictionary of naval terms] Kratkii frantsuzsko-russkii voenno-morskoi slovar'. Pod red. A.S. Bondarenko. Moskva, Voen. izd-vo M-va obor. SSSR, 1961. 344 p. (MIRA 15:2)

(French language--Dictionaries--Russian)
(Naval art and science--Dictionaries)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V. I.

4494

Geometriya Rastochnogo Reztsa, Obes Pechivayushchaya Struzhkolomaniye. M., 1954. 2 s. Schert. 22sm (m-vo Avtomob., Trakt. Is. -Kh. Mashinostroyeniya SSSR. Gos. Vsesoyuz. In-t Avtomob. Tykhnologii. (Orgavtoprom). Inform. -Tekhn. Listok No 11). 500 Ekz. B. Ts. -Sost. Ukazan B. Vyp. Dan. -(54-15657 Z H) 621. 952. 5. 025

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

P.

ISAYEV, V.; MASLOV, V.

Organizing repair of the ZIS-155 motorbus on a production line.
Avt.transp.34 no.5:24-26 My '56. (MLRA 9:9)
(Motorbuses--Repair)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

BRAIL'CHUK, P.; DYUMIN, I.; PODSHCHEKOLDIN, M.; ISAYEV, V. P.

Improving technological processes in repairing the ZIL engines.
Avt. transp. 37 no.2:26-29 F '59. (MIRA 13:1)
(Motortruck--Engines--Maintenance and repair)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.P.

System of enterprises serving workers' needs in Frunze District.
Gor.khoz.Mosk. 34 no.7:28-31 Jl '60. (MIRA 13:7)

1. Predsedatel' ispolkoma Frunzenskogo raysoveta.
(Moscow--Municipal services)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.P.

The Lenin Quarter of the capital. Gor.khoz.Mosk. 36 no.4:4-9 Ap '62. (MIRA 15:8)

1. Pervyy sekretar' Leninskogo rayonnogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza.
(Moscow--City planning)

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L 61582-65 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Pk-4 IJP(c) BB/GG
ACCESS ION NR: AT5014717 UR/0000/65/000/000/0109/0117

AUTHOR: Isayev, V.P.; Gusev, A.V.

TITLE: Some problems concerning the choice of structure of the address decoder in rapid magnetic memories

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and non-volatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 109-117

TOPIC TAGS: simple matrix sampling, simple linear sampling, linear magnetic decoder sampling, matrix diode-transformer decoder sampling, matrix magnetic decoder sampling, matrix module sampling, matrix half-module sampling, linear diode transformer decoder sampling, address decoder structure

ABSTRACT: The basic requirement imposed on the system of address decoding of a rapid magnetic memory is the maintainance of stable current pulses of information sampling from the storage devices with a maximum number of active elements and a high coefficient of favorable action. The author investigated the advantages and weaknesses of: 1) simple matrix sampling, 2) simple linear sampling, 3) linear sampling with magnetic decoder, 4) matrix sampling with diode-transformer decoder,

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ACCESSION NR: AT5014717

5) matrix sampling with magnetic decoder, 6) matrix module sampling, 7) matrix half-module sampling, and 8) linear sampling with diode-transformer decoder. Special emphasis was placed on the number of shapers needed for the various possible solutions. The article concludes with general engineering recommendations. Orig. art. has: 5 formulas, 5 figures, and 1 table.

ASSOCIATION: none

SUBMITTED: 20Jan65 ENCL: 00 SUB CODE: DP

NO REF SOV: 000 OTHER: 000

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

VERBA, M.I., kand.tekhn.nauk; ISAYEV, V.S., inzh.; LEONCHIK, B.I., inzh.

Effect of the heat-transfer coefficients and the substance on the drying process of building bricks. Izv.vys.ucheb.zav.; energ. 2 no.4:109-114 Ap '59. (MIRA 12:9)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena kafedroy sushil'nykh i teploobmennykh ustroystv.
(Bricks—Drying)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.S.

Machine for screwing on of pole bolts of motors. Elek.i tepl.tiaga 3 no.7:27 Jl '59. (MIRA 13:3)
(Electric motors)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.S., burovoy master

We need a new reagent for drilling muds. Neftianik 5 no. 12:17 D '60. (MIRA 13:12)

1. Stalingradskiy sovnarkhoz.
(Oil well drilling fluids)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, Viktor Semenovich; SMIRNOV, Ernst Nikolayevich; ZUBKOVA, M.S., red.; GORYACHKINA, R.A., tekhn. red.

[Manual for the construction of prestressed concrete pavements] Pamiatka rabochemu na stroitel'stve napriazhennykh zhelezobetonnykh pokrytii. Moskva, Avtotransizdat, 1963. 34 p. (MIRA 17:1)

(Pavements, Concrete)
(Prestressed concrete construction)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.S.

Precision in the stamping of collector plates. Sbor. nauch. trud. EINII 2:237-245 '62. (MIRA 16:8)

(Sheet-metal work) (Electric machinery)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.S., inzh.

Features of the automation of a collector-plates assembling operation. Vest. elektroprom 34 no.6:58-60 Je '63. (MIRA 16:7)

(Electric machinery)
(Electric machinery industry)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, Vladimir Semenovich, inzh.

Automation of the selection of copper plates in assembling electric collectors. Izv.vys.ucheb.zav.; elektromekh. 6 no.2:269-274 '63. (MIRA 16:4)

1. Rukovoditel' gruppy Novocherkasskogo nauchno-issledovatel'skogo instituta elektrovozostroyeniya.
(Electric motors)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.S., inzh.

Potential transmission of clays from different deposits. Trudy MEI no.48:85-96 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, V.S.

49-3-15/16

AUTHOR: Kirillov, F.A.

TITLE: Conference of junior research workers, engineers and aspirants of the Intstitute of the Physics of the Earth, Ac. Sc., U.S.SR. (Konferentsiya mladshikh nauchnykh sotrudnikov, inzhenerov i aspirantov Instituta Fiziki Zemli AN SSR).

Periodical: "Izvestiya Akademii Nauk, Seriya Geofizicheskaya" (Bulletin of the Ac. Sc., Geophysics Series), 1957, No. 3, pp. 411-415 (U.S.SR.)

ABSTRACT: The conference was held on December 24-26, 1956, 21 papers were read relating to work completed in 1955 and 1956. In this report the contents of the individual papers are briefly summarized. V.S. Isayev's paper was devoted to the study of distortions of the wave pattern in the case of grouping of seismographs (explosions) in seismic prospecting.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

SOV-49-58-6-7/12

AUTHOR: Isayev, V. S.

TITLE: On a Theory of Directional Action in a Group of Seismographs with Impulsive Oscillations. I (K teorii napravlennogo deystviya grupp seysmografov v sluchaye impul'snykh kolebaniy. I)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 6, pp 770-782 (USSR)

ABSTRACT: The theory for explosions (Refs.1, 2) has been worked out for stationary harmonic oscillations (Refs.1,3-11). In seismic surveys, non-stationary - usually quasi-sinusoidal - oscillations occur, so it is of interest to consider theoretically the characteristics of directional action for a group of instruments under the action of impulses. The distortion of dynamical characteristics of waves in this case has been considered qualitatively (Ref.12) for harmonic oscillations limited in time.

1. The application of grouping to the case of impulsive oscillations. With stationary harmonic oscillations, grouping only changes the amplitude of oscillation - the form remains unchanged. With impulsive oscillations, however, not only the amplitude, but the period and length are altered. The following assumptions are made: (1) a plane wave is incident on the seismographs, (2) the seismographs are iden-

Card 1/13 tical in the form of frequency and phase characteristics and

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On a Theory of Directional Action in a Group of Seismographs with Impulsive Oscillations. I.

in absolute sensitivity, and there are no transitional processes, (3) the seismic receivers are identical, (4) the seismic receiving apparatus is a linear system so that oscillations may be superimposed. The impulses will be taken to have the form:-

$$f(t') = \begin{cases} 0 & t' < 0 \\ A\left[2 \sin \frac{2\pi t'}{T_{imp}} - \sin \frac{4\pi t'}{T_{imp}}\right] & 0 \leq t' \leq T_{imp} \\ 0 & t' > T_{imp} \end{cases} \qquad (1)$$

where A is a constant depending on the oscillation intensity, T_{imp} is a constant depending on the form of the oscillation and defining the length of the pulse, and t' is the time. The function in Eq.(1) and its derivative are continuous for all t' (Ref.13). The distance between neighbouring extrema of this impulse is called the apparent period T^*_{imp}. In the case given, $T^*_{imp} = 0.68\ T_{imp}$. The inverse of T^*_{imp} will be called the apparent frequency f^*_{imp}. With both impulsive and stationary harmonic oscillations the working of a seismograph group depends on interference, but

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the two cases can not be connected unless the former are analysed by Fourier integrals, which is excessively complicated. The author therefore uses a method of I. I. Gurvich (Ref.14) which investigates the total oscillations at the output of the group, separately. This cannot be applied, however, to all cases. A step function, introduced by A. A. Kharkevich is now used:

$$\sigma_0(t - \tau) = \begin{cases} 0 \text{ for } t < \tau \\ 1 \text{ for } t \geqslant \tau \end{cases} \qquad (2)$$

Hence, Eq.(1) can now be written in the form Eq.(3). The total oscillation can now be written as the sum of the separate oscillations at the output. Thus for four instruments, the total oscillation is given by Eq.(4), where

$\Delta\tau = \frac{\Delta x \sin i}{v}$ (the difference in approach time to neighbouring seismographs in the group); Δx is the distance

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tween seismographs; i is the angle of approach of the waves; v is the velocity of propagation of the oscillations. Similar expressions are obtained with other types of oscillations and different numbers of seismographs. The present work investigates the use of four and two instruments.

2. The change in form of impulsive oscillations with four instruments (n = 4). It can be seen from Eq.(4) that, for any T_{imp} and $\Delta\tau$, the oscillation process is divided in time into seven intervals (generally, into 2n - 1). The dimensions and intensities of the oscillations in these intervals depend on the relation between the magnitudes of T_{imp} and $\Delta\tau$. (1) If $T_{imp} < \Delta\tau$, then the oscillations in one instrument of the group have finished before those in the next instrument are started, and, hence, four separate oscillations are sent to the output without superposition. (2) If $\Delta\tau < T_{imp} < 2\Delta\tau$, then the output oscillations in different intervals represent the oscillations from individual instruments or from two neighbouring instruments. (3) If $2\Delta\tau < T_{imp} < 3\Delta\tau$, then the output oscillations at

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different times represent the oscillations from individual seismographs, from two neighbouring, or from three neighbouring ones. (4) If $3\Delta\tau < T_{imp}$, the output oscillations come successively from one, two, three and four instruments and then from three, two and one. The author now gives equations to represent the oscillations in all intervals for all relations of T_{imp} and $\Delta\tau$ (using Eq.(1) and $n = 4$). The boundary and number of each of the seven intervals is given on the right-hand sides of these expressions. Generally speaking, the distance Δx between instruments is such that $\Delta\tau$ is very small and, hence, $3\Delta\tau < T_{imp}$. The author therefore writes down the equations for this particular case in a more convenient form for calculation. In the interval $3\Delta\tau < t' < T_{imp}$, the total oscillation coincides with the total oscillation for stationary oscillations - it is called the quasi-stationary zone of oscillations (all four instruments

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egistering). Outside this interval, there are six non-stationary zones of oscillation which are not registered by all instruments: 1 and 7 are called the extreme non-stationary zones and the remainder are simply called non-stationary zones. If $\Delta\tau$ is small the oscillation output depends mainly on the quasi-stationary zone. Quasi-stationary and non-stationary oscillations are different in form, amplitude and phase (5) but this does not lead to jumps in the time of arrival or in the amplitude. This is shown by Fig.1 where the total output oscillation is calculated for different $\Delta\tau/T_{imp}$; for constant Δx, $\Delta\tau/T_{imp} \infty \sin i$. The centre of all oscillations is on one vertical line. The distortion of the form of the trace increases with $\Delta\tau/T^*_{imp}$. For $\Delta\tau/T^*_{imp} < 0.2$, increase of the ratio weakens the intensity of the trace, whilst for $\Delta\tau/T^*_{imp} > 0.2$, there is a strong decrease in amplitude and the form of the impulse changes. (For $\Delta\tau/T^*_{imp} = 0.5 - 0.55$ (5a) is used for calculations). Fig.1 shows that large Δx lead to considerable distortion

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of shape. Fig.2 gives the total oscillations for an impulse in the form of one section of a sine wave - the results are analagous to Fig.1. $\Delta\tau/T^*_{imp} = 0.25$, for stationary harmonic waves, is the smallest value giving complete suppression with four instruments. With sine form impulses (Fig.2), the oscillations are fully suppressed, at this value, only for the quasi-stationary zone and for impulses of the type (1), full suppression does not occur. However, weakening and distortion is always present. Figs. 1 and 2 show that, for large $\Delta\tau/T^*_{imp}$, the form of the oscillations at the output changes so much that it is impossible to speak of period, but only of time between two extrema (Δt). $2\Delta t$ is called the apparent period T^{*gr} of the group output. Fig.3 gives a graph of $\Delta t/T^*_{imp}$ and T^{*gr}/T^*_{imp} against $\Delta\tau/T^*_{imp}$ for impulse (1). The continuous line corresponds to values of

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$\Delta\tau/T^*_{imp}$ for which $2\Delta t$ can be taken equal to T^{*gr}. Change in T^{*gr} occurs for values of $\Delta\tau/T^*_{imp}$ corresponding to the basic maximum of the directional characteristics of the grouping $\left[\Delta\tau/T^*_{imp} < 0.13\ (n = 4)\ \text{and}\ \Delta\tau/T^*_{imp} < 0.275\ (n = 2)\right]$.

Within this maximum, T^{*gr} changes by the same amount for two or four instruments - 15%. Fig.4 gives the analogous graph for a sinewave pulse. In this case, as $\Delta\tau/T^*_{imp}$ changes not only plane, but also step, changes in Δt are observed. Step changes in $\Delta t/T^*_{imp}$ and T^{*gr}/T^*_{imp} (Fig.4) occur for values of $\Delta\tau/T^*_{imp}$ for which the extrema of the output oscillations change from one zone of total oscillation to another (Fig.2). For a sudden beginning, multiperiod sinusoidal impulse, the basic part of the total oscillation is in the quasi-stationary zone and the oscillation period and profile do not change. With this type of impulse, the distortion

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of the apparent period, T^{*gr}, in the bounding parts of the total oscillation are diminished by a factor of two in comparison with a single-period sinusoidal impulse.

3. Directional characteristics of impulsive oscillations. The author quotes A. A. Kharkevich (Ref.15): 'Directional characteristics are defined by the maximum instantaneous value of the observed quantity as a function of angle of incidence (i) of the waves.' The quantity in this case is dimensionless and is called the directional coefficient F (it is the ratio of the maximum, instantaneous value at a given angle i, to that at i = 0). In constructing the directional characteristic, the quantity $\Delta\tau/T^*_{imp}$ is chosen for the argument of F, rather than the angle i. Fig.5 gives the directional characteristics for impulses of type (1), and Fig.6 for single sine wave impulses. For comparison, the directional characteristics of stationary harmonic oscillations are also given.

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For sine wave impulses of two, or more, periods, with $\Delta\tau/T^*_{imp} < 0.5$ (which are of most importance in seismic surveys), the directional characteristics are coincident with those for the single period oscillation. The most important conclusions arising from a comparison of directional characteristics for impulses and stationary sinusoidal oscillations are: (a) within the limits of the basic maximum, the characteristics are close to one another (Fig.5), or coincide (Fig.6); (b) the directional characteristics of grouping for impulsive oscillations do not have null values. For impulses of type (1) as $\Delta\tau/T^*_{imp}$ increases the directional characteristics (Fig.5) pass smoothly into a line parallel to the x-axis. For sine form impulses breaks in the characteristic occur (Fig.6) corresponding to values of $\Delta\tau/T^*_{imp}$ for which maximum values of the output oscillation amplitude pass from one oscillation zone to another. In between the breaks the characteristics have a straight line form. The straight line part for impulsive oscillations corresponds to the extreme non-stationary zones of oscillation. The selection of Δx for the suppression of

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noise on the basis of the theory for stationary harmonic oscillations leads to a significant weakening of the oscillations (Figs.1 and 5; 2 and 6). The maximum suppression of impulsive oscillations occurs at $\Delta\tau/T^*_{imp} = 0.5$. If n = 4, the amplitude of impulsive wave-noise for this value of $\Delta\tau/T^*_{imp}$ decreases by a factor of four in comparison with the amplitude for $\Delta\tau/T^*_{imp} = 0$.

Conclusions

1. Consideration of the theory of grouping for impulsive oscillations type (1) and sine wave impulses give basically similar results. Hence, it can be assumed that other quasi-sinusoidal impulses will be analogous.
2. The application of grouping for impulsive oscillations leads to distortion of the amplitude and wave form. However, the distortion for small $\Delta\tau/T^*_{imp}$ is small.
3. The duration of the total oscillation at the output of the

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group is increased by $(n - 1)\Delta\tau$ sec.

4. T^{*gr} has physical significance for only comparatively small values of $\Delta\tau/T^*_{imp}$ (for $n = 4$, $\Delta\tau/T^*_{imp} < 0.25$; for $n = 2$, $\Delta\tau/T^*_{imp} < 0.45$) . T^{*gr} increases with $\Delta\tau/T^*_{imp}$. For values of the latter corresponding to the basic maximum of the directional characteristic, the increase of T^{*gr} is small. For a sine-wave pulse in the same region, changes in T^{*gr} do not occur.

5. The dependence of output oscillation amplitude on the direction of incidence of the wave can be conveniently expressed for impulsive oscillations, as for stationary harmonic oscillations in the form of a directional characteristic.

6. The directional characteristics of impulsive, quasi-sinusoidal and of stationary, harmonic oscillations in the region of the basic maximum are close to one another.

7. In suppressing impulsive wave noise, the selection of the distances, Δx , between the instruments of a group, on the basis of the theory for stationary harmonic oscillations,

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leads to a real (although not the maximum possible) weakening of the oscillations. There are 6 figures and 15 references, of which 12 are Soviet and 3 English.

ASSOCIATION: Akademiya nauk SSSR, Institut Fiziki Zemli (Academy of Sciences, USSR, Institute of Physics of the Earth)

SUBMITTED: May 31, 1957.

1. Geology 2. Earthquakes 3. Seismographs--Applications 4. Seismic waves--Analysis

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

SOV/49-58-10-8/15

AUTHOR: Isayev, V. S.

TITLE: On the Theory of Directed Action of a Group of Seismographs in the Case of Pulse Vibrations. II (K teorii napravlennogo deystviya gruppy seysmografov v sluchaye impul'snykh kolebaniy. II)

PERIODICAL: Izvestiya Akademii Nauk SSSR, seriya geofizicheskaya, 1958, Nr 10, pp 1234-1244 (USSR)

ABSTRACT: The first paper in this series was published in Nr 6 (1958) of this journal. In the present paper a further theoretical study is made of the directive effect of grouping in the case of pulsed vibrations. Changes in the kinematic properties of pulsed vibrations due to grouping are discussed as well as correlation problems. Pulses of the following form are considered:

$$f(t') = \begin{cases} 0 & \text{if} \quad t' < 0, \\ A\,2\left[\sin\frac{2\pi t'}{T_{imp}} - \sin\frac{4\pi t'}{T_{imp}}\right] & 0 < t' \leqslant T_{imp} \\ 0 & t' > T_{imp} \end{cases} \qquad (1)$$

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In this equation A is a constant, T_{imp} is constant, depending on the form of the vibrations and determining the duration of the pulse, t' is the time. In the case of boundaries which are almost plane the use of a group seismograph does not lead to a deterioration of the correlation between the refracted waves whose apparent velocity, at constant distance between instruments in a group, remains constant along the profile. The correlation of reflected waves in the case of plane boundaries is worse in the case of grouping because of changes in the apparent velocity of the waves along the profile. The deterioration in the correlation of reflected waves due to grouping is unimportant if the ratio of the time difference between waves incident on neighbouring instruments in a group and the apparent period is small, provided the distance between the instruments is constant. In the application and interpretation of dynamic properties of waves it is necessary to take into account changes in their properties due to the directive effect of grouping. A method whereby these corrections can be introduced is given. Results of the present investigation

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On the Theory of Directed Action of a Group of Seismographs in the Case of Pulse Vibrations.II.

are summarized in 12 figures and 1 table. These figures show changes in the refracted waves and their dynamic properties due to grouping under various conditions. The original pulses are taken in the form given by Eq.(1) and also in the form of a sine wave consisting of one period only. There are 12 figures, 1 table and 11 Soviet references.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki Zemli (Academy of Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: May 31, 1957.

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

BERZON, Inna Solomonovna; BOKANENKO, Lev Ivanovich; ISAYEV, Vasiliy Semenovich; SHCHUKINA, Ye.P., red.; BRUZGULS, V.V., tekhn.red.

[Seismic studies on the Tuyuksu Glacier] Seismicheskie issledovaniia na lednike Tuiuksu. Moskva, Izd-vo Akad.nauk SSSR, 1959. 66 p. (Akademiia nauk SSSR. Mezhduvedomstvennyi komitet po provedeniiu Mezhdunarodnogo geofizicheskogo goda seismicheskie issledovaniia, no.2). (MIRA 13:2)
(Tuyuksu Glacier--Seismology--Observations)

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ISAYEV, V.S.

PHASE I BOOK EXPLOITATION SOV/3560

Akademiya nauk SSSR. Institut fiziki zemli

Seysmicheskaya razvedka (Seismic Prospecting) Moscow, Izd-vo AN SSSR, 1959. 376 p. (Series: Its: Trudy, No. 6 /173/) Errata slip inserted. 1,500 copies printed.

Ed.: I.S. Berzon, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: L.I. Ratnikova; Tech. Ed.: V.V. Volkova.

PURPOSE: The publication is intended for geologists and geophysicists, particularly for those interested in the study of seismic waves and their use in geological prospecting.

COVERAGE: This is a collection of 17 articles published by the Academy of Sciences USSR as transactions of the Institute of Physics of the Earth. The first four articles present mainly an analysis of amplitudinal properties of waves. The second group of four articles deals with problems of frequency analysis of seismic waves. The remaining articles cover a wide field of problems in seismology such as methods of interpretation of dynamic properties of waves, observation of reflected latitudinal waves, design of high-frequency seismic instruments, etc. References are given at the end of each article.

Yepinat'yeva, A.M. Some Results of the Analysis of Formulas for the Amplitudes of Refracted Waves 7

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Sorokhtin, O.G. Multichannel Supersonic Pulse Seismoscope 354

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BOKANENKO, L.I.; ISAYEV, V.S.

Preliminary results of the determination of the ice depth of Mount Elbrus using the seismic method. Inform.sbor. o rab.Geog.fak.Mosk.gos.un. po Mezhdunar.geofiz.godu. no.5:10-58 '60. (MIRA 16:3)
(Elbrus, Mount—Ice)

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ISAYEV, V.S., inzh.

Dependence of thermal and physical constants of clays on their chemical and granulometric composition and moisture content. Izv. vys. ucheb. zav.; energ. 5 no.10:92-100 O '62. (MIRA 15:11)

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(Clay)

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Effect of the angle of deviation of the profile of rolled copper on the monolithic properties of the collectors of electric traction motors. Sbor. nauch. trud. ElNII 3:202-207 '63. (MIRA 17:4)

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Analysis of the dimension diagram for a set of collector plates. Vest. mashinostr. 44 no. 4:48-52 Ap '64. (MIRA 17:5)

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Precise calculation of collector components. Elektrotekhnika 36 no.8: 59 Ag '65. (MIRA 18:9)

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ISAYEV, V. V.

Hypotension. Feldsher & akush., Moskva no. 11:57-58 Nov. 1951.
(CLML 21:3)

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Treating endarteritis obliterans by an ultrahigh-frequency electric field and radon baths in a polyclinic. Vop.kur.fizioter. i lech. fiz.kul't. 21 no.4:77-82 O-D '56. (MLRA 9:12)

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(ARTERIES—DISEASES) (DIATHERMY)
(RADON—THERAPEUTIC USE)

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(Milling machines--Numerical control)

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ISAYEV, V.V. (Moskva)

Conveyor with automatic feed of semifinished products to worker stations. Shvein. prom. no.1:7-10 Ja-F '63. (MIRA 16:4)

(Conveying machinery)

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ZHIGACH, K.F., prof., otv.red.; MURAV'YEV, I.M., prof., red.; TIKHOMIROV, A.A., kand.ekonom.nauk, red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; SIDORENKO, N.V., red.; BRENTS, A.D., red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHARNYY, I.A., prof., red.; CHERNOZHUKOV, N.I., prof., red.; KUZMAK, Ye.M., prof., red.; DAKHNOV, V.N., prof., red.; PANCHENKOV, G.M., prof., red.; NAMETKIN, N.S., prof., red.; TAGIYEV, E.I., prof., red.; BIRYUKOV, V.I., kand. tekhn.nauk, red.; YEGOROV, V.I., kand.tekhn.nauk, red.; ALMAZOV, N.A., dotsent, red.; GUREVICH, V.M., red.; ISAYEVA, V.V., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Development of the gas industry of the U.S.S.R.; from the proceedings of the Interuniversity Scientific Conference on the Problems of the Gas Industry] Mezhvuzovskaia nauchnaia konferentsiia po voprosam gazovoi promyshlennosti. Razvitie gazovoi promyshlennosti SSSR; materialy. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 405 p. (MIRA 13:11)

1. Mezhvuzovskaya nauchnaya konferentsiya po voprosam gazovoy promyshlennosti. 2. Glavgaz SSSR (for Brents). 3. Moskovskiy institut neftekhimicheskoi i gazovoi promyshlennosti im. akad.Gubkina (for Charygin, Charnyy).

(Gas industry)

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ISAYEV, V.V.

The 6P76 multipurpose machine for milling metal-cutting tools. Biul.tekh.-ekon.inform. no.1:28-29 '62. (MIRA 15:2)
(Milling machines)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

EWT(m)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4 IJP(c) JD

UR/0032/65/031/007/0829/0829

[illegible] Ostroumov, V. V.

TITLE: Electrolytic cutting of monocrystals of indium antimonide

SOURCE: Zavodskaya laboratoriya, v. 31, no. 7, 1965, 829

TOPIC TAGS: electrolytic cutting, indium antimonide, anodic cutting, ethylene glycol, glycerin, anode slime, platinum string, cutting string, monocrystal cutting, reversible current, electrolyte, acetic acid

ABSTRACT: The current methods of electrolytic cutting, developed for germanium and silicon, are not suitable for indium antimonide. The authors established that the anodic cutting of indium antimonide is in principle possible in diluted aqueous and anhydrous (ethylene glycol) solutions of hydrofluoric and acetic acids. This is not, however, an efficient technique because the cut is too wide ([illegible] mm) and clogged with anode slime, and the cutting rate is too slow. Therefore the authors experimented with electrolytic cutting by means of reversible current which ensures the alternating action of anode and cathode polarization on the specimen. The periodic short cathode-current pulses remove the anodic oxide film. The elec-

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trolytic cutting was performed with the aid of a vertical stretched string of 0.1-mm diameter platinum wire continually wetted with a stream of electrolyte containing (in % by volume): acetic acid 20, glycerin 20, water 60. The monocrystal was clamped in a holder and advanced at a uniform rate against the string by means of a synchronous motor. The periodic reversal of the direct current was automated. Cutting regime: anode-current pulses of 4 sec duration; current density, 10.5 a per cm^2 of active surface of the string; voltage 4 volts; cathode-current pulses of 1 sec duration; current density 4.2 a per cm^2; voltage 46 volts. Under these conditions a sufficiently level, clean cutting surface is obtained, with the cut being 0.3 mm wide. The cutting rate for a 1.5 mm thick sheet reached 14 mm/hr. To reduce the cut width to ~0.1 mm, electrolyte of the following composition (in % by volume) was used: acetic acid 1, ethylene glycol 99. Anode and cathode current density ~3.5 a/cm^2; voltage ~40 volts. Diameter of platinum string: 30 μ. Duration of anode and cathode current pulses: the same as above. Owing to the reduced current density the cutting rate slowed down to 5 mm/hr.

ASSOCIATION: None

SUBMITTED: 00

NR REF SOV: 002

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SUB CODE: EE, MM

OTHER: 000

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APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

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ISAYEV, V.Ya.; VAKSMAN, V.Ye.[deceased]; IVANOV, A.K.; BUDO, A.S.; FAKTOROVICH, Yu.A., kand. tekhn. nauk, nauchnyy red.; GERASIMOVA, G.S., red. izd-va; BOROVNEV, N.K., tekhn. red.

[Consolidation and specialization in the building organizations of the Main Leningrad Construction Trust; practices and economic effectiveness] Ukruplenie i spetsializatsiia stroitel'nykh organizatsii v Glavleningradstroe; opyt i ekonomicheskaia effektivnosti. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1960. 74 p. (MIRA 15:2)

(Construction industry)

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Builders prepare for the 41st anniversary of the Great October Revolution. Biul.tekh.inform. 4 no.10:1-3 O '58. (MIRA 11:11)

1. Nachal'nik Glavleningradstroya.
(Leningrad--Construction industry)

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TUTAYUK, Valida; ISAYEV, Ya., red.

[Origin of angiosperms and their ancestor group] K proiskhozhdeniiu pokrytosemennykh rastenii i ob ikh predkovoi gruppe. Baku, Izd-vo AN Azerbaidzh.SSR, 1965. 44 p. (MIRA 18:11)

1. Chlen-korrespondent AN Azerbaydzhanskoy SSR (for Tutayuk).

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SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

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AKHUNDOV, I.F.; ISAYEV, Ya.M.; KARYAGIN, I.I.; PRILIPKO, L.I.; RZAZADE, R.Ya.; VASILEVSKIY, Ya.B., redaktor; MURDZHAPAROV, A.M., tekhnicheskiy redaktor.

Rosaceae-Leguminosae. Flora Azerb. 5:5-579 '54. (MLRA 9:9)

(Azerbaijan--Rosaceae) (Azerbaijan--Leguminosae)

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ISAYEV, Ya. M.

Dissertation: "Plants of the Winter Pastures of Azerbaydzhan and Their Food Values." Dr Biol Sci, Botanical Inst, Acad Sci USSR, Leningrad, 1953. Referativnyy Zhurnal--Geologiya, Geografiya, Moscow, Jul 54.

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ISAYEV, Ya.M.; BOGDANOV, M.P.

Sodding slopes of the Mingechaur Hydroelectric Power Station dam [in Azerbaijani with summary in Russian]. Dokl. AN Azerb.SSR 12 no.10:731-735 '56. (MLRA 10:1)

(Mingechaur Hydroelectric Power Station) (Dams)
(Soil binding)

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AKHUNDOV, G.F., kandidat biologicheskikh nauk; ISAYEV, Ya.M., kandidat biologicheskikh nauk; KARYAGIN, I.I.; PRILIPKO, L.I., doktor biologicheskikh nauk; RZAZADE, R.Ya., doktor biologicheskikh nauk; VASILEVSKIY, Ya.B., redaktor izdatel'stva

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ISAYEV, Ya. M., Doc Biolog Sci--(diss) "The vegetation on Azerbaidzhan winter pastures and its nutritional value." Baku, Publishing House of the Acad Sci Azerb SSR, 1957, 35 pp. (AS USSR. Inst of ~~Physiology~~ BOTANY im. ~~I. P. Pavlova~~ V. L. KOMAROV), 100 copies.

(KL, No. 41, 1957, p. 107)

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ISAYEV, Ya.M.

The Artemisia semidesert winter pastures of Azerbaijan. Trudy Inst.bot.AN Azerb.SSR 20:5-20 '57. (MLRA 10:10)
(Azerbaijan--Pastures and meadows) (Artemisia)

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ISAYEV, Ya.M.; UL'YANISHCHEV, V.I.; DZHAFAROV, S.A.

Most important results of a study of the higher and spore-bearing plants of the Azerbaijan S.S.R. during the past 40 years. Izv. AN Azerb. SSSR. Ser. biol.-med. nauk no. 2:53-56 '60. (MIRA 13:10)

(AZERBAIJAN--BOTANICAL RESEARCH)

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ASKEROVA, R.K.; AKHUNDOV, G.F.; ISAYEV, Ya.M.; KARYAGIN, I.I.; PRILIPKO, L.I.; SOFIYEVA, R.M. Prinimali uchastiye: KUTATELADZE, A.; MANDENOVA, I.P.; LINCHEVSKIY, I.A.; POBEDIMOVA, Ye.G.; POYARKOVA, A.I.; FEDOROV, An.A.; KHARADZE, A.L.; YUKSIP, A.Ya.; VARUNTSYAN, I., red. izd-va; POGOSOV, V., tekhn. red.

[Flora of Azerbaijan] Flora Azerbaidzhana. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR. Vol.8. Rubiaceae - Compositae. 1961. 688 p. (MIRA 14:11)

(Azerbaijan--Dicotyledons)

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GADZHIYEV, V.D.; ISAYEV, Ya.M., doktor biol. nauk, retsenzent; ALIYEV, R.A., kand. biol. nauk, retsenzent; PRILIPKO, L.I., doktor biol. nauk, prof., red.; DEMENT'YEVA, L., red.izd-va; IBRAGIMOV, M., tekhn. red.

[Greater Caucasus within Subalpine vegetation of the Azerbaijan S.S.R.] Subal'piiskaia rastitel'nost' Bol'shogo Kavkaza; v predelakh Azerbaidzhanskoi SSR. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1962. 170 p. (MIRA 16:4)
(Azerbaijan—Alpine flora)

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MIKAILOV, M.A., doktor sel'khoz. nauk; ABDULLAYEV, I.K., akademik, red.; ISAYEV, Ya.M., doktor biol. nauk, red.

[Biological foundations of the reproduction of gum-bearing plants and their introduction into cultivation in Azerbaijan] Biologicheskie osnovy razmnozheniia kamedenosnykh rastenii i vvedenie ikh v kul'turu v usloviiakh Azerbaidzhana. Baku, Izd-vo AN Azerbaidzh.SSR, 1964. 186 p. (MIRA 17:9)

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ALIYEV, R.A.; GADZHIYEV, V.D.; ISAYEV, Ya.M.; MAILOV, A.I.; NABILI, D.G.; PRILIPKO, L.I.

[Improvement and efficient use of winter and summer pastures in Azerbaijan] Uluchshenie i ratsional'noe ispol'zovanie zimnikh i letnikh pastbishch Azerbaydzhana. Baku, Izd-vo AN Azerbaidzhanskoi SSR, 1965. 45 p. (MIRA 18:12)

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ABUTALYBOV, M.G., otv. red.; ISAYEV, Ya.M., red.; PRILIPKO, L.I., red.; ULYANISHCHEV, V.I., red.; MIKAILOV, M.A., red.

[Problems of experimental botany] Voprosy eksperimental'noi botaniki. Baku, Izd-vo AN Azerb.SSR, 1965. 185 p. (MIRA 18:11)

1. Akademiya nauk Azerbaydzhanskoy SSR, Baku. Institut botaniki.

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DEVYATOV, G.; ISAYEV, Ye.

Scienctific production conferences on problems of production organization and utilization of its potentials. Vop. ekon. no.10: 134-136 O '59. (MIRA 12:12)
(Siberia--Industrial organization)

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ISAYEV, Ye.D.; GERASIMENKO, V.V.; SOBIN, P.I.

Press for squeezing out oil from oil-rich deposits. Masl.-zhir. prom. 27 no.3:43-44 Mr '61. (MIRA 14:3)

1. Nikolayevskiy maslozavod.
(Krasnodar Territory—Oil industries—Equipment and supplies)

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ISAYEV, Ye.G., kandidat tekhnicheskikh nauk.

Investigation of the turning process in caterpillar tractors. Avt. trakt.prom. no.2:11-14 Fe '55. (MIRA 8:4)

1. MADI
(Tractors)

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ISAYEV, Ye.G., kandidat tekhnic heskikh nauk.

Intensity of track adhesion and engine load in the turning of a tractor. Avt. i tract. prom. no.2:18-22 F '56.(MLRA 9:6)

1.Moskovskiy avtodorozhnyy institut.
(Caterpillars (Vehicles))

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ISAYEV, Ye.G., kandidat tekhnicheskikh nauk

Farm tractor production in Western Germany. Avt. i trakt.prom no.11:39-43 N '56. (MLRA 10:1)

(Germany, West--Tractor industry)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7"

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ISAYEV, YE.G.

ISAYEV, Ye.G., kand.tekhn.nauk

Agricultural tractors in the United States. Avt.i trakt.prom. no.9:38-45 S '57. (MIRA 10:11)

(United States--Tractors)

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"APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618820009-7

ISAYEV, Ye.G.

ISAYEV, Ye.G., kand. tekhn. nauk.

Weight of wheeled tractors. Avt. i trakt. prom. no.12:17-21 D '57. (MIRA 11:1)

1. Moskovskiy avtodorozhnyy institut.
(Tractors)

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