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# CONSOLIDATED TRANSLATION SURVEY

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CONSOLIDATED TRANSLATION SURVEY

FOR JULY 1967

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## CONSOLIDATED TRANSLATION SURVEY

### PREFACE

This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (\*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

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ACIC - Aeronautical Chart and Information Center  
(see CFSTI)

ACSI - (see DIA)

AEC - Atomic Energy Commission (see CFSTI)

AERE Harwell Lib

Atomic Energy Research Establishment,  
Hanwell, Berkshire  
England

AF

Department of Air Force  
Assistant Chief of Staff, Intelligence  
ATTN: AFCIN-3D  
Washington 25, D. C.

AFCRL Res Lib

Air Force Cambridge Research Laboratories  
Research Library  
Office of Aerospace Research  
United States Air Force  
Laurence G. Hanscom Field  
Bedford, Massachusetts  
ATTN: CRMXLR

AGU

American Geophysical Union  
1515 Massachusetts Avenue, NW  
Washington, D. C. 20005

AIP

American Institute of Physics  
335 East 45th Street  
New York, New York 10017

ANL - Argonne National Laboratory, Illinois  
(see AEC)

APL/JHU

The Johns Hopkins University  
Applied Physics Laboratory  
8621 Georgia Avenue  
Silver Spring, Maryland 20910

ATS

Associated Technical Services, Incorporated  
P.O. Box 271  
East Orange, New Jersey 07017

BHP

Central Research Laboratories  
Broken Hill Proprietary Co. Ltd.,  
Shortland, 2N, N.S.W. Australia

BISI

British Iron and Steel Industry Translation Service  
The Iron and Steel Institute  
4 Grosvenor Gardens  
London, S.W. 1, England

CB

Consultants Bureau Enterprises, Incorporated  
227 West 17th Street  
New York, New York 10011

CFSTI

Clearinghouse for Federal Scientific and  
Technical Information (Formerly Office of  
Technical Services)  
Port Royal and Braddock Roads  
Springfield, Virginia 22151

CTT

Columbia Technical Translations  
5 Vermont Avenue  
White Plains, New York 10600

DIA

Defense Intelligence Agency  
Washington, D. C. 20301

FP

The Faraday Press, Incorporated  
84 Fifth Avenue  
New York, New York 10011

FTD - Foreign Technology Division (see AF)

Geochem Soc

Prof. E. Wm. Heinrich  
Mineralogical Laboratory  
University of Michigan  
Ann Arbor, Michigan

HB

Henry Bratcher Technical Translations  
P.O. Box 157  
Altadena, California 91001

HEW - See NIH

IEEE

Institute of Electrical and Electronics Engineers  
275 Madison Avenue  
New York, New York 10016

Department of Interior

Department of Interior  
Bureau of Foreign Fisheries (Translations)  
Division of International Affairs  
Bureau of Commercial Fisheries  
Room 8015  
Washington, D. C. 20240

ISA

Instrument Society of America  
530 William Penn Place  
Pittsburgh, Pennsylvania 15219

JPRS

U. S. Department of Commerce  
Clearinghouse for Federal Scientific  
and Technical Information  
Joint Publications Research Service  
Building Tempo E,  
East Adams Drive, 4th & 6th Streets, SW  
Washington, D. C. 20443

NASA

National Aeronautics and Space Administration  
1512 H Street, NW  
Washington, D. C. 20546

Navships

U. S. Naval Ship Systems Command  
Washington, D. C. 20360

Navy

Department of Navy  
Office of Naval Intelligence  
Washington, 25, D. C.

NIH

Circulation Unit  
Readers Services Section  
Library Branch, DRS  
National Institutes of Health  
Building 10, Room 5N118  
Bethesda, Maryland 20014

NLL

National Lending Library  
For Science & Technology  
Boston Spa, Yorkshire, England

NMS

U. S. Naval Medical School  
National Naval Medical Center  
Bethesda, Maryland 20014

NOO

U. S. Naval Oceanographic Office  
Washington, D. C. 20390

NRL

U. S. Naval Research Laboratory  
Washington, D. C. 20390

NSJ - (see AEC)

**NSTIC**

Ministry of Defense  
Room 102, Station Square House  
St. Mary Cray, Orpington, Kent.  
England

**ONI** - Office of Naval Intelligence (see Navy)

**ORNL** - Oak Ridge National Laboratory (see AEC)

**OSA**

Optical Society of America, Incorporated  
33 University Road  
Cambridge, Massachusetts 02138

**Patent Office**

Department of Commerce, Patent Office  
Scientific Library  
14th and Constitution Avenue, NW  
Washington, D. C.

**PG**

Petroleum Geology  
Box 171  
McLean, Virginia

**Primary Sources**

Primary Sources  
11 Bleecker Street  
New York, New York 10012

**RTS-** (see OTS)

**SIC**

Scientific Information Consultants, Limited  
661 Finchley Road  
London N.W. 2, England

**SLAC** - Stanford Linear Accelerator Center - (see AEC)

**Sci & Tech Info Facility**

Scientific & Technical Information Facility  
National Aeronautics and Space Administration  
Goddard Space Flight Center  
Contract No NAS-5-12437

UCRL

University of California  
Lawrence Radiation Laboratory  
Livermore, California  
(see AEC)

USSR

Economic

Planning a New City,  
RUSSIAN, per, Arkhittekhtura SSR, No 7, 1966,  
pp 3-11.  
DIA LN 580-66

New Buildings in Volgograd,  
RUSSIAN, per, Arkhittekhtura SSR, No 7, 1966,  
pp 48-49.  
DIA LN 580-66

City Construction Planning, by V. Pavlichenkov,  
12 pp.  
RUSSIAN, per, Arkhittekhtura SSSR, No. 11, 1966,  
pp. 5-15.  
JPRS 41413

New Forms and Regulations for Urban Construction,  
by V. Shkvarikov, B. Luk'yanov, 14 pp.  
RUSSIAN, per, Arkhittekhtura SSSR, No 2, 1967,  
pp 25-28.  
DIA LN

For a Better Utilization of Motor Vehicles in  
Harvesting in the RSFSR, by I. Kuzhinskiy,  
5 pp.  
RUSSIAN, per, Avtomobil'nyy Transport, No 4, 1967,  
pp. 1-2.  
JPRS 41319

Regulations on Wages in the Cotton and Linen  
Industries, 12 pp.  
RUSSIAN, per, Byulleten' Gosudarstvennogo  
Komiteta Soveta Ministrov po Voprosam Truda i  
Zarabotnoy Platy, No. 1, 1967, pp. 20-26.  
JPRS 40866

How To Determine Maximum Credit, by E.  
Zelgalvis, 10 pp.  
RUSSIAN, per, Dengi i Kredit, No 4, 1967,  
pp. 10-15.  
JPRS 41660

The Production Development Fund, by L. Rotshteyn,  
16 pp.  
RUSSIAN, per, Dengi i Kredit, No 4, 1967, pp.  
68-74.  
JPRS 41660

Credit System of the DRV, by S. Borodin, 8 pp.  
RUSSIAN, per, Dengi i Kredit, No. 4, 1967,  
pp. 75-80.  
JPRS 41426

USSR  
Economic (Contd)

Discussion of Problems of Optimization in Plan-  
ning and Managing Socialist Economy, by Al'b L.  
Vaynshteyn and K. L. Gorgan, 13 pp.  
RUSSIAN, per, Economica i Matematicheskie Metody,  
No. 2, Mar-Apr 1967, pp. 317-324.  
JPRS 41014

Economic Reforms Falter At the Voskresensk Plant,  
by N. Yakovchuk, 9 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 11,  
Mar 1967, pp. 19-20.  
JPRS 40678

Standardization in the Sewing Industry, by V.  
Popkov, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 12,  
Mar 1967, p. 16.  
JPRS 40808

Shortcomings in the Organization of the Supply  
System, by A. Nikitin and V. Selyunin, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 12,  
Mar 1967, pp. 18-19.  
JPRS 40906

Economic Review of the Railroad Transport of  
the USSR, 12 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 12,  
Mar 1967, pp. 21-22.  
JPRS 41342

Construction of a Single and United System of  
Scientific and Technical Information, by N.  
Arutyunov, 10 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 13,  
Mar 1967, pp. 13-14.  
JPRS 40871

A Conference on Economic Problems in Tadzhikistan,  
9 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 13,  
Mar 1967, pp. 15-16.  
JPRS 40906

Minsk Meeting Discusses Transfer of Construc-  
tion Organizations to New Conditions of Economic  
Management, 9 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 13,  
Mar 1967, pp. 38-39.  
JPRS 40881



USSR  
Economic (Contd)

Economic Reform and Experimental Production, by M. Yakovlev, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 13.  
JPRS 41014

The Problems of Economic Stimulation and Material Responsibility in Soviet Industry, by F. Rabinovich, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 15.  
JPRS 40906

Standard Regulations Pertaining to the Granting of Bonuses to Workers at Motor-Transport Enterprises which Are To Be Converted to the New System of Planning and Economic Incentives, 11 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 14, Apr 1967, pp. 16-17.  
JPRS 41016

The New Economic Reform in Action, 11 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 14, Apr 1967, pp. 23-24.  
JPRS 40906

The Krasnoyarskaya GRS on the Yenisey, by G. Buslanov, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 26.  
JPRS 41137

The Results of Soviet Trade Fairs, by L. Gorelik, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 28.  
JPRS 40906

Scientific Organization of Labor at Enterprises in Sverdlovskaya Oblast, by V. Bayev and A. Dobryden', 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 29.  
JPRS 41016

Delay in Activation of Underwater-Drilling Base in the Caspian Sea, by I. May, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 30.  
JPRS 41018

USSR  
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Problems in Meeting Construction Deadlines at the Ternopol' Cotton Combine, by A. Kozlov, 6 pp.  
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JPRS 41018

Readers' Suggestions Concerning Ways of Improving the Payment of Labor on Sovkhozos, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 14, Apr 1967, p. 32.  
JPRS 41016

Measures Planned to Combat Water Pollution in USSR, by N. Khlebnikov, V. Orlov, A. L'vovich and P. Matveyev, 6 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 14, 14 Apr 1967, p. 35.  
JPRS 41050

Need To Increase Labor Productivity in Soviet Economy, by L. Kostin, 10 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 15, Apr 1967, pp. 4-5.  
JPRS 41135

Examples of Bonuses for Workers Under the New Conditions, 15 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 15, Apr 1967, pp. 12-13.  
JPRS 41135

Rural Trade Must Meet Growing Demands of the Population, by M. Denisov, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 15, 15 Apr 1967, p. 21.  
JPRS 41063

Constructing Modern Belorussian Villages, by Ya. Gleser, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 15, Apr 1967, p. 31.  
JPRS 41148

Two Shifts at Livestock Sections, by L. Shinkarev and F. Bogomolov, 6 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 15, Apr 1967, p. 32.  
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Conference Held On the Economic Development of the Kirghis SSR, 5 pp.  
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Production Indices Discussed for the Long-Range Development of the Soviet Footwear Industry, 10 pp.

RUSSIAN, np, Ekonomicheskaya gazeta, No. 16, Apr 1967, pp. 29-30.  
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Increased Non-Working Time for the Soviet Worker and How He Spends It, by G. Prudenskiy, 11 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 17, Apr 1967, pp. 6 & 7.  
JPRS 41087

Improvement of Industrial Relations Between Metallurgical Enterprises Needed, by A. Voronov and O. Tsvirko, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 17, Apr 1967, pp. 10-11.  
JPRS 41138

Social Planning at Leningrad Enterprises, by A. Dumachev and I. Chuyev, and A. Kurilov, 8 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 17, Apr 1967, pp. 15-16.  
JPRS 41135

The Marketing of Industrial By-Products in Latvia, by B. Beman, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No. 17, Apr 1967, p. 28.  
JPRS 41072

Novosibirsk Radio Parts Plant Improves Management, by A. Nikitin, 6 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 17, Apr 1967, p. 29.  
JPRS 41135

Concise Quality Control Instructions, 16 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 17, 17 Apr 1967, pp. 31-33.  
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RUSSIAN, np, Ekonomicheskaya Gazeta, No. 18, May 1967, pp. 20-21.  
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Sovkhoses Convert to Full Self-Sufficiency Cost Accounting Plan, by G. Entusov, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, 18 Mar 1967, p. 38.  
JPRS 41297

Introduction of New Economic System Into Communication Enterprises, by G. Golomb, 7 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 20, May 1967, p. 12.  
JPRS 41662

Improving Autonomous Financing at the Mishny Talig Plastics Plant, by S. Yefremov, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 20, May 1967, p. 11.  
JPRS 41642

Introducing the New Economic System Into the Main Administration of Ministries, by V. Salyunin, 6 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 20, May 1967, p. 36.  
JPRS 41641

Successes and Problems at Leningrad "Skorokhod" Shoe Factory, by D. Strushentsov, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 21, May 1967, p. 9.  
JPRS 41640

New Conditions of Planning and Economic Stimulation at Agricultural Machinery Plants, by V. Ivanov, 6 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 21, May 1967, p. 11.  
JPRS 41641

Omsk Synthetic Rubber Plant Reduces Staff and Increases Labor Productivity, by A. Sverdlov, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 21, May 1967, p. 13.  
JPRS 41642

Poor Use of Material Incentives in Meat and Dairy Industry, by A. Chirkova, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 21, May 1967, p. 13.  
JPRS 41640

USSR  
Economic (Contd)

Outlook for the Fish Industry, by A. Ishkov, 8 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 23,  
June 1967, pp. 4-5.  
JPRS 41640

Proposals Made for Improving the Economic  
Effectiveness and Quality of Soviet Goods, by T.  
Khachaturov and D. L'vov, 8 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 23,  
Jun 1967, pp. 28-29.  
JPRS 41680

A Report on the International Food Machinery  
Exhibit in Moscow, by V. Begishev, 9 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 23,  
Jun 1967, pp. 45-46.  
JPRS 41680

Mastering Design Capacities in Industry, by R.  
Shiryayev, 10 pp.  
RUSSIAN, per, Ekonomicheskiye Nauki, No. 2,  
1967, pp. 42-49.  
JPRS 40880

Economic Computations According to Models of  
Expanded Production, by V. Dadayan,  
RUSSIAN, bk, Ekonomicheskiye Raschety po  
Modeli Rasshirennogo Vospriizvodstva, 1966,  
pp 3-196.  
\*JPRS 16118

Construction of Moscow, by V. Promyslov, 11 pp.  
RUSSIAN, per, Ekonomika Stroitel'stva, Nov  
1966, pp 1-8.  
DIA LN 105-67

All Reserves of Construction -- Into Action, 5 pp.  
RUSSIAN, per, Ekonomika stroitel'stva, No 3,  
Mar 1967, pp. 2-7.  
JPRS 41148

The Building Materials Industry of the RSFSR In  
the Anniversary Year, by D. Potanin, 6 pp.  
RUSSIAN, per, Ekonomika stroitel'stva, No 3,  
Mar 1967, pp. 8-13.  
JPRS 41148

Shortcomings in Construction Work in Eastern  
Siberia, by D. Vashchenko, 5 pp.  
RUSSIAN, per, Ekonomika Stroitel'stva, No 4,  
1967, pp. 40-43.  
JPRS 41148

USSR  
Economic (Contd)

Main Stages of Electrification in USSR  
Outlined, by D. G. Zhimerin, 18 pp.  
RUSSIAN, per, Elektrichestvo, No 5, May 1967,  
pp. 1-6.  
JPRS 41669

The Budget of the Anniversary Year Must Be Ful-  
filled Excellently, by I. Fadeyev, 15 pp.  
RUSSIAN, per, Finansy SSSR, No. 3, Mar 1967,  
pp. 6-16.  
JPRS 41437

The Budgets of Local Soviets Must Be Strengthened  
in Every Possible Way, by B. Filimonov, 7 pp.  
RUSSIAN, per, Finansy SSSR, No. 3, Mar 1967,  
pp. 17-21.  
JPRS 41437

Financial Problems of the Reform in the Branches  
of the National Economy, by G. Chubakov, 16 pp.  
RUSSIAN, per, Finansy SSSR, No. 3, Mar 1967,  
pp. 45-57.  
JPRS 41437

Some Problems of the Relationship between  
Finances and Monetary Circulation in the New  
Five-Year Plan, by I. Konnik, 11 pp.  
RUSSIAN, per, Finansy SSSR, No. 3, Mar 1967,  
pp. 70-77.  
JPRS 41437

The Tasks of Financial Organs for 1967 Discussed  
by the Board of the Ministry of Finance USSR,  
6 pp.  
RUSSIAN, per, Finansy SSSR, No. 3, Mar 1967,  
pp. 94-96.  
JPRS 41437

The Future of Ul'yanovsk, A Gigantic Construction  
Site in the North of Bashkiriya, 8 pp.  
RUSSIAN, per, Geografiya, Jan-Feb 1967, pp 78-81.  
DIA LN 337-67

The Iron Ore Mining Industry in 1966 and Its  
Objectives for the Anniversary Year, by V. S.  
Vinogradov, 6 pp.  
RUSSIAN, per, Gornyy Zhurnal, No. 3, Mar 1967,  
pp. 3-6.  
JPRS 40810

USSR  
Economic (Contd)

Miners Serving the Nonferrous Metallurgy Are on Duty in the Anniversary Year, by I. A. Oleynikov, 6 pp.  
RUSSIAN, per, Gornyy Zhurnal, No. 3, Mar 1967, pp. 6-8.  
JPRS 40810

Centralized Heat Supply in Moscow, by A. G. Yanovskiy, 11 pp.  
RUSSIAN, per, Gorodskoye Khozyaystvo Moskv, No 3, Mar 1967, pp. 22-25.  
JPRS 41320

Public Centers of Microrayons That Are Being Reconstructed, by B. P. Anisimov, 7 pp.  
RUSSIAN, per, Gorodskoye Khozyaystvo Moskv, No 4, Apr 1967, pp. 22-24.  
JPRS 41608

Administration of Economic Reform Problems in the Republics, by B. Mambetov, 6 pp.  
RUSSIAN, mp, Izvestiya, 16 Apr 1967, p. 2.  
JPRS 41014

Better Care of Raw Hides Urged to Cut Losses in Soviet Tanning Industry, by V. Vukovich, A. Druzenko and I. Karpenko, 7 pp.  
RUSSIAN, mp, Izvestiya, 20 Apr 1967, p. 3.  
JPRS 41410

Scientific Development of Siberia, by M. Lavrent'yev, 6 pp.  
RUSSIAN, mp, Izvestiya, 25 May 1967, p. 2.  
JPRS 41679

Some Questions Concerning the Development of Public Consumer Funds, by L. A. Elvikov, 9 pp.  
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, No 1, Jun 1967, pp. 16-21.  
JPRS 41644

The Transition of Kuznetsk Metallurgists to a Five Day Work Week, by I. I. Demidov, K. Ye. Kapustin, A. Ya. Sosul'nikov, and D. Ya. Yashin, 10 pp.  
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, No 1, Jun 1967, pp. 52-58.  
JPRS 41644

USSR  
Economic (Contd)

Reasons for Labor-Turnover at Enterprises of the Maklakovo-Yeniseysk Timber Complex, by I. M. Voronkov, 12 pp.  
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, No 1, Jun 1967, pp. 59-65.  
JPRS 41644

Questions Concerning Interregional Regulation of Real Wages for Manual and Office Workers During the New Five Year Plan, by N. P. Kalinovskiy, 7 pp.  
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, No 1, Jun 1967, pp. 66-72.  
JPRS 41644

Food and Food Interrelationships of Flounders of the Il'insk Bank, by V. A. Skalkin,  
RUSSIAN, per, Izv Tikhookeanskogo N.-I. Inst Pybnogo Khoz i Okeanografiy, Vol XLVII, 1959, pp 62-75.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Catalog and Handbook - Automobiles for the USSR, 1963,  
RUSSIAN, bk, Katalog-Spravochnik - Avtomobili SSSR 1963 g, 1963.  
ACSI J-0297  
ID 2204035966

The Refrigeration Industry of the USSR in 1959-1965,  
RUSSIAN, per, Kholodil'naya Tekhnika, Sept 1966, pp 1-6.  
DIA LN 104-67

New Tasks Confronting The Refrigeration Industry,  
RUSSIAN, per, Kholodil'naya Tekhnika, Sept 1966, pp 7-9.  
DIA LN 104-67

Cold Storage & Distribution Plant in Volgograd,  
RUSSIAN, per, Kholodil'naya Tekhnika, Sept 1966, pp 43-45.  
DIA LN 104-67

USSR  
Economic (Contd)

Basic Directions in the Development of Refrigeration in the USSR, by V. A. Dedukh, 5 pp. RUSSIAN, per, Kholodil'naya Tekhnika, 1 Jan 1967, pp 1-3.  
DIA LN 267-67

Utilization of Kolkhoz Labor Resources in Moldavia, by N. Frolov, 11 pp. RUSSIAN, per, Kommunist, No. 4, Apr 1967, pp. 27-34.  
JPRS 41341

The Efficiency of Accumulation and Economic Growth, by E. Gorbunov, 12 pp. RUSSIAN, per, Kommunist, No 8, May 1967, pp. 88-97.  
JPRS 41638

The Economy of the CEMA Member-Countries in the New Five-Year Plan, by Yu. Belyayev, 12 pp. RUSSIAN, per, Kommunist, No 8, May 1967, pp. 98-107.  
JPRS 41638

The 23rd CPSU Congress: On Strengthening the Struggle against Imperialist Ideological Divisions, by G. Shmygov, 11 pp. RUSSIAN, per, Kommunist Belorussii, No. 2, Feb 1967, pp. 46-51.  
JPRS 40902

High Development Rate and Great Prospects of the Chemical Industry, 5 pp. RUSSIAN, np, Krasnaya Zvezda, 28 May 1967, p. 4.  
JPRS 41642

Leningrad Announces the Schedule for Converting to the Five-Day Working Week, by A. Sisev, and B. Popov, 9 pp. RUSSIAN, np, Leningradskaya Pravda, 25 May 1967, p. 3.  
JPRS 41681

Recommendations on Transferring Ministry of Timber, Cellulose-Paper, and Woodworking Industry to Five-Day Week, 8 pp. RUSSIAN, np, Leshaya Promyshlennost', 11 May 1967, p. 2.  
JPRS 41382

USSR  
Economic (Contd)

Comments on the Economic Reform, 6 pp. RUSSIAN, per, Literaturnaya Gazeta, No. 12, 1967, p. 10.  
JPRS 41073

Construction, Construction Machinery and Building Materials, by A. Kondrashov, 10 pp. RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 2, Feb 1967, pp. 8-18.  
JPRS 41038

Improving the Organization and Planning of Material and Equipment Supply, 6 pp. RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 1-4.  
JPRS 41340

Optimization of Production Stocks in the National Economy, by N. Fasolyak, 14 pp. RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 5-14.  
JPRS 41340

Fishery Reconnaissance Activity in 1964, by P. S. Samarin, RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 15-17.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Development of the Fishing Industry in the North During Five Years 1966-1970, by L. S. Nikol'skiy, RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 17-20.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Estimation of Stocks of Atlantic-Scandian Herring at the Beginning of 1965 and Fishery Prospects in 1966-1970, by I. G. Yudanov, RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled b 1964g, No 6, 1966, pp 123-130.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

USSR  
Economic (Contd)

Economic Efficiency of Use of the Rt and SRT in Different Areas while Taking Various Catches and Operating in Various Modes of Fishery Organization, by L. A. Ostrivskaya, Yu. N. Chekhonia,  
RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 165-172.

\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

The Experience of Application of the EVM "Promin" for the Economic Calculations of Exploitation of the Fishing Industry, by L. A. Ostrovskaya, I. A. Radionenko,  
RUSSIAN, per, Materialy Sessiy Uchenogo PINRO Soveta po Rezul'tatam Issled v 1964g, No 6, 1966, pp 172-182.

\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Problems of Price Formation for Machines, by Sh. Turetskiy, 12 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 21-29.  
JPRS 41340

Economic-Mathematical Methods in the Practical Work at Material and Technical Supply, 16 pp.  
RUSSIAN, per, Material'no-tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 52-65.  
JPRS 41014

Fishery Resources in 1962-1964 and Prospects for Herring Catches in the Northwestern White Sea in 1965-1966, by B. M. Tambovtsev,  
RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 227-231.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Methods of Saving Materials at the Moscow Electrical Plant Imeni Kuybyshev, by A. Borsunov, 6 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No 2, Feb 1967, pp. 53-56.  
JPRS 41137

USSR  
Economic (Contd)

Supplying of Construction Under the Conditions of Its Industrialisation, by P. Gorbushin and I. Oves, 10 pp.

RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No 3, Mar 1967, pp. 41-47.  
JPRS 41148

The Rational Supplying of Construction Projects, by A. Shomahteyn, 6 pp.

RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No 3, Mar 1967, pp. 47-51.  
JPRS 41148

Organization of Wholesale, Small-Scale Wholesale, and Commission Trade in Means of Production, by V. Kurotchenko, 12 pp.

RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 90-95.  
JPRS 41340

Saving of Cement Proposed in Soviet Construction and Industry, by P. Lopukhov and S. Voronov, 6 pp.

RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No 4, Apr 1967, pp. 59-63.  
JPRS 41148

Mechanization of Installation Operations in Industrial Construction, by P. A. Zimin, 14 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'stva, No. 4, Apr 1967, pp. 2-8.  
JPRS 41413

Contemporary Stage of the Development of the Soviet Economy and Bourgeois Criticisms, by A. Bachurin, 19 pp.  
RUSSIAN, per, Mirovaya Ekonomika i Mezhdunarodnyye Otnosheniya, No. 3, Mar 1967, pp. 3-16.  
JPRS 40839

Construction of Apartment Houses-Economic Basis, 14 pp.  
RUSSIAN, per, Na Stroikakh Rosii, Nov 1, 1966, pp 19-21.  
DIA LN 202-67

Much Depends Upon the Oil Prospectors, by A. Kuvanyshv, 5 pp.  
RUSSIAN, per, Narodnoe Khozyaystvo Kazakhstana, No 12, 1966, pp 74-76.  
DIA LN 176-67

USSR  
Economic (Contd)

The Agricultural Situation Two Years after the Resolutions of the March Plenum, by G. Lisichkin, 47 pp.  
RUSSIAN, per, Novyy Mir, No. 2, Feb 1967, pp. 160-185.  
JPRS 41017

Reform in Industry: First Results, Problems Related To Increasing Its Effectiveness, by N. Fedorenko, 21 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No 4, Apr 1967, pp. 5-17.  
JPRS 41073

The Use of Economic and Mathematical Methods and Computer Technology in Planning, by M. Rakovskiy, 10 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No 4, Apr 1967, pp. 18-25.  
JPRS 41239

Ways of Intensifying Agricultural Production, by R. Songayla, 8 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No. 4, 1967, pp. 26-31.  
JPRS 41045

On New Methods of Planning in Construction, by V. Zatvan and M. Armstibovitskiy, 17 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No 4, 1967, pp. 57-69.  
JPRS 41148

Planning for the Circulation of Funds, by I. Larionov, 11 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No 5, May 1967, pp. 82-86.  
JPRS 41660

Proposals Discussed for Benefit Paid to Workers Migrating to the North, by P. Dubovoy, 7 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No 5, May 1967, pp. 86-89.  
JPRS 41681

Forms of Material Encouragement of Labor under New Conditions in USSR, by A. Volkov, 5 pp.  
RUSSIAN, per, Pravda, 17 May 1967, p. 2.  
JPRS 41408

USSR  
Economic (Contd)

The Soviet Economy and American "Experts", by V. Smolyanskiy, 7 pp.  
RUSSIAN, per, Pravda, 26 May 1967, pp. 3-4.  
JPRS 41660

Contributions of Uzbek Scientists to the Republic's Development Outlined, by A. Sadykov, 8 pp.  
RUSSIAN, per, Pravda Vostoka, 8 May 1967, p. 3.  
JPRS 41328

New Tariffs on Electric and Thermal Power, by V. N. Gerasimov, 9 pp.  
RUSSIAN, per, Promyshlennaya Energetika, No 4, Apr 1967, pp. 12-16.  
JPRS 41241

New Frontiers of Fishing Kolkhozes of Sakhalin, by A. A. Taranov,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 6, 1964, pp 58-59.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Present Status and Future Projects for the Construction of Fishing Vessels, by G. B. Tarent'ev,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 7, 1964, pp 3-5.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

New Fields for Fishing Kolkhozes of Sakhalin, by A. A. Taranov,  
RUSSIAN, per, Rybnoe Khoz, No 7, 1964, pp 61-62.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Economic Efficiency of the Use of Production Refrigerators in Trawling Operations in the Barents Sea, by V. I. Zakurdayev,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 7, 1964, pp 81-84.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

USSR  
Economic (Contd)

On Fishing Vessel Types Designed for the Fleet  
Fishing, by N. A. Avdeyev,  
RUSSIAN, per, Rybnoe Khoz, No 8, 1964, pp 31-32.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Standards of Amortization for Vessels of the  
Fishing Fleet, by A. V. Sorokin,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 8, 1964,  
pp 80-81.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

A New System of Fisherman Wages, by  
L. Zamyatin,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 8, 1964,  
pp 93-94.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

To the Workers of the Fisheries Industry.  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 8, 1964,  
pp 94.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Fishing Tactics and Optimum Decisions, by  
B. S. Tishinskiy, I. I. Gubarev,  
RUSSIAN, per, Rybnoe Khoz, No 10, 1964, pp 44-47.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Commercial Use of Algae.  
RUSSIAN, per, Rybnoe Khoz, No 11, 1964, pp 71.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Conference of Crews of Azov and Black Seas  
Loading Vessels.  
RUSSIAN, per, Rybnoe Khoz, No 11, 1964, pp 94-95.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

The Significance of the Volga-Ural Canal for  
Increasing Fish Productivity of the North  
Caspian, by G. N. Zaitsev, N. I. Kozhin,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964,  
pp 5-8.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Norms for Ship Work in Maritime Fishing Ports  
and Small, by Z. Aleksandrova, V. Ivanov,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964,  
pp 28-30.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Influence of the Catch Weight on Trawl  
Selectivity, by V. I. Toolmachev,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964,  
pp 45-46.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Pair Trawling for Navaga, by N. Andreyev,  
S. Gurevskiy,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964,  
pp 50-51.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Need for a Single Method for Registering  
Expenditure and Making Calculations, by  
P. Egorodskiy,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12,  
1964, pp 71-74.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Public Norm Setting Bureau of the Astrakhan  
Shipyard IM S. M. Kirov in the Drive for Higher  
Labor Productivity, by G. A. Taktarov,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964,  
pp 74-76.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries



USSR  
Economic (Contd)

Economy Reserves While Freezing Fish in Expeditionary Conditions, by V. Sedenko, RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964, pp 77-78.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Toward High Fish Catches, by A. A. Ishkov, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 3-7.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

New Scientific-Fishing Vessels "Akademik Knipovich", by S. Vershinin, RUSSIAN, per, Rybnoe Khoz, Vol XLI, 1965, No 1, pp 31-33.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Catch of Herring by Purse Seines in the North Atlantic, by S. Edemskiy, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 52-53.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Reducing the Cost of Catches of Fish, by M. A. Barun, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 80-82.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Labor and Wage Organization on Transport Refrigerator Ships, by Yu. L. Korotkov, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 82-83.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Fixed Productive Assets of the Fishing Industry, by O. Bolotnova, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 84-86.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

Some Questions Concerning the Fishery for Deepwater Redfish in the Newfoundland Region, by V. A. Rikhter, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 5, 1965, pp 15-17.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Operating Efficiency of Large Factory Stern Trawler with Fish Processing Plants Areas, by L. V. Fedorova, RUSSIAN, per, Rybnoe Khoz, No 7, 1966, pp 87-88.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Geographic Distribution of Hake Fisheries, by V. I. Sauskan, RUSSIAN, per, Rybnoe Khoz, No 8, 1966, pp 7-10.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Operating Efficiency of Large Factory Stern Trawler in Various Fishing Areas, by L. V. Fedorova, RUSSIAN, per, Rybnoe Khoz, No 8, 1966, pp 72-74.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Method of Calculating the Increase in Fish Catches by the Fishing Fleet, by S. A. Mayorova, 5 pp.

RUSSIAN, per, Rybnoe Khoz, No 9, 1966, pp. 52-54.  
JPRS 41643

Operating Efficiency of Large Factory Stern Trawler in Various Fishing Areas, by L. V. Fedorova, RUSSIAN, per, Rybnoe Khoz, No 9, 1966, pp 71.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Method of Calculating the Increase in Fish Catches by the Fishing Fleet, by S. A. Mayorova, 8 pp.

RUSSIAN, per, Rybnoe Khoz, No 10, 1966, pp. 53-55.  
JPRS 41643

USSR  
Economic (Contd)

The Experimental Maiden Voyage of the Tuna-Fishing Vessel Solnechnyi Luch in the Tropical Region of the Atlantic, by V. G. Yurov, RUSSIAN, per, Rybnoe Khoz, No 11, 1966, pp 49-51.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Utilization of Shark Fins, RUSSIAN, per, Rybnoe Khoz, No 11, 1966, pp 61  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Contemporary forms of International Control Over the Compliance with the Rules of Commercial Marine Fishing, by A. A. Volkov, RUSSIAN, per, Rybnoe Khoz, No 11, 1966, pp 90-91.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Reserves in the Exploitation of the Refrigerated Fleet in the Far East, by N. I. Savin, RUSSIAN, per, Rybnoe Khoz, No 12, 1966, pp 72-73.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Technical Measures for Improving the Working Conditions for and Increasing the Safety of Fishermen, by V. I. Grin'. RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 31-33.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Relationship Between Catch and Basic Technical Characteristics of Trawler and Trawl, by Kh. A. Leval'd. RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 34-35.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

USSR  
Economic (Contd)

Is Swivel Always Needed in Trawling? by E. A. Lebedev. RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 36-37.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Basic Trends in Analyzing Operational Indices of the Fishing Fleet, by V. S. Ivanov. RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 69-71.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Economic Analysis of the Mechanization Introduced in the Manufacturing of Canned "Sprats in Oil," by E. I. Platonova. RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 76-77.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Results of Commercial Fishing for North Atlantic Blue Whiting, by S. K. Zilanov, RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 5-6.  
\*Dept of Interior  
Fish & Wildlife Service  
BCF, Bureau of Foreign Fisheries

Theory of Trawl Catchability, by V. A. Ionas, RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 33-36.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Reply to Criticisms of the Theory of the Spreading Efficiency of Trawl Doors, by I. R. Matrosov, RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 37-39.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Objective Technological Indices of New Fishery Products, by G. K. Koval'chuk, RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 54-56.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

Introduction of Cost Accounting on Fishing Vessels, by V. S. Ivanov, V. Kh. Leonov,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 66-68.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

New Planning and Economic Incentives in Enterprises of the Fishing Industry, by I. P. Mal'tsev,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 63-65.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Particularities of Warehouse-Type Supply Service in Far Eastern Fishery Enterprises, by S. Lipnitskiy,  
RUSSIAN, per Rybnoe Khoz, No 4, 1967, pp 71-72.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Principles of Modeling and Planning Commercial Fishing Gear, by G. K. Voitlovskiy, et al,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 90-91.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Books About the Fishing Industry,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 91-93.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On Preparing the Astrakhan Shipyards from S. M. Kirov for Transition to Work Under the New Conditions, by G. Zakharev,  
RUSSIAN, per, Rybnoe Khoz, No 11, 1967, pp 71-72.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Positive Experience of Specialized Fattening Sowpigs in the Russian Federation, by A. Polunin, 6 pp.  
RUSSIAN, per, Sel'skaya Khizia, 6 Apr 1967, p. 2.  
JPRS 41098

USSR  
Economic (Contd)

Shortcomings in Operation of Penza Rural Construction Trust Sharply Scored, 7 pp.  
RUSSIAN, per, Sel'skoye Stroitel'stvo, No. 3, Mar 1967, pp. 24-25.  
JPRS 41408

Conditions for Formation of Shop Material Incentives Funds, by A. Dovgalevskiy and A. Siginevich, 13 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No. 4, 1967, pp. 24-31.  
JPRS 41382

Labor Productivity in Machine Building, by Ye. Kasimovskiy and V. Lisitsyn, 15 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No. 4, 1967, pp. 66-75.  
JPRS 41382

Review of Materials Pertaining to Introduction of Five-Day Work Week, 17 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No. 4, 1967, pp. 76-85.  
JPRS 41382

An Enterprise Director Reports on Labor Aspects of the New Economic Reform, by I. Kurtynin, 6 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No 5, May 1967, pp. 33-36.  
JPRS 41681

A Mining Combine Reports on Labor Norming and the Economic Reform, by B. Kotlyar, 5 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No 5, May 1967, pp. 133-135.  
JPRS 41681

What the Economic Reform Means for Wages and Bonuses, 10 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No 5, May 1967, pp. 147-153.  
JPRS 41681

Conference on the Results of the Economic Reform in Latvia in 1966, 6 pp.  
RUSSIAN, per, Sovetskaya Latvija, 26 Mar 1967, p. 3.  
JPRS 41028

USSR  
Economic (Contd)

Lithuanian Republic Conference of Agricultural Workers, 24 pp.  
RUSSIAN, np, Sovetskaya Litva, Apr 5, 1967, pp. 1-3.  
JPRS 41098

Cost Accounting and Profit under New System of Economic Management in USSR, by M. Fedorovich, 6 pp.  
RUSSIAN, per, Sovetskaya Potrebitel'skaya Kooperatsiya, No. 3, Mar 1967, pp. 46-50.  
JPRS 41063

The Problems of Trade in the Far Eastern Reaches of the USSR, by G. Korobko, 9 pp.  
RUSSIAN, per, Sovetskaya potrebitel'skaya kooperatsiya, No. 4, Apr 1967, pp. 39-43.  
JPRS 41355

Results of the Five-Day Workweek, by N. Vasenin, 5 pp.  
RUSSIAN, np, Sovetskaya Torgovlya, 15 Apr 1967, p. 3.  
JPRS 41016

The Population's Budgets and the Study of Demand, by A. Parfenova and V. Rumyantsev, 5 pp.  
RUSSIAN, per, Sovetskaya Torgovlya, No. 4, Apr 1967, pp. 18-20.  
JPRS 41063

The Organization of Funds on Soviet Sovkhozes, by N. Pershits, 6 pp.  
RUSSIAN, per, Sovetskiye Profsoyuzy, No. 3, 1967, pp. 33-34.  
JPRS 40806

New Responsibilities for USSR Trade Union Central Committees, 6 pp.  
RUSSIAN, per, Sovetskiye Profsoyuzy, No. 7, Apr 1967, pp. 2-3.  
JPRS 41408

Legal Regime of Territorial Waters and the Open Sea, by A. L. Kolodkin,  
RUSSIAN, rpt, Sovetskiy Yezhegodnik Mezhdunarodnogo Prava, 1962, pp 330-333.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

Legal Questions in Rendering Assistance and Rescue on the Seas, by K. F. Yegorov,  
RUSSIAN, rpt, Sovetskiy Yezhegodnik Mezhdunarodnogo Prava, 1962, pp 333,334.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Measures for the Development of Our Fisheries, by V. A. Kevdin,  
RUSSIAN, rpt, Sovremennoe Rybolovstvo Rossii, 1915, pp 112-145.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Economic Modeling of Elaboration of an Optimal Development and Distribution Plan for Window Pane Enterprises, by I. G. Adirim, 6 pp.  
RUSSIAN, per, Steklo i Keramika, No 5, 1967, pp. 37-40.  
JPRS 41639

The Five-Day Work Week, by M. M. Bushuyev, 5 pp.  
RUSSIAN, per, Stroitel'nyye i Dorozhnyye Mashiny, No 5, May 1967, pp. 36-37.  
JPRS 41681

Current Statute on Bonus Conditions for Workers of Certain Soviet Industrial Enterprises, by A. S. Budayev, 7 pp.  
RUSSIAN, np, Stroitel'naya Gazeta, 22 Mar 1967, pp. 3-4.  
JPRS 41087

Five-Day Work Week Planned in Soviet Construction Industry, 5 pp.  
RUSSIAN, np, Stroitel'naya gazeta, No. 39, 31 Mar 1967, p. 1.  
JPRS 41341

Designing and Problems of Its Economic Reform, 8 pp.  
RUSSIAN, np, Stroitel'naya Gazeta, 28 Apr 1967, p. 3.  
JPRS 41437

Improving the Organization of Production, RUSSIAN, per, Stroitel'nyye Materialy, No 8, 1966, pp 1-2.  
DIA LN 623-66

USSR  
Economic (Contd)

Concerning New Accomplishments in the New  
5-Year etc,  
RUSSIAN, per, Stroitel'nyye Materialy, No 8,  
1966, pp 8-11.  
DIA LN 623-66

Future Prospects in the Development of Soft  
etc, by G. S. Chubarov, M. V. Lesnykh,  
RUSSIAN, per, Stroitel'nyye Materialy, No 8,  
1966, pp 12-15.  
DIA LN 623-66

Development of the Construction Materials In-  
dustry in Moscow, by A. I. Shtern, 8 pp.  
RUSSIAN, per, Stroitel'nyye Materialy, No 2, 1967,  
pp 1-3.  
DIA LN 286-67

Scientific-Organisation of Labor in the  
Construction Materials Industry, by G. F.  
Shchegunov, 6 pp.  
RUSSIAN, per, Stroitel'nyye Materialy, No 5,  
1967, pp. 16-18.  
JPRS 41608

The Overall Critical-Path Network in the  
Project-Design Stage, by M. S. Mogilevskiy and  
M. G. Bakhmatova, 12 pp.  
RUSSIAN, per, Stroitel'stvo i Arkhitektura  
Uzbekistana, No. 12, 1966, pp. 10-15.  
JPRS 40882

Using the Critical-Path Method in Construction  
Design and Planning, by Ye. A. Gorodskikh and  
V. I. Sorokin, 6 pp.  
RUSSIAN, per, Stroitel'stvo i Arkhitektura  
Uzbekistana, No. 12, 1966, pp. 15-17.  
JPRS 40882

System of Centers of Republic-Level Institutions  
in Frunze, by L. I. Sokolov, 6 pp.  
RUSSIAN, per, Stroitel'stvo i Arkhitektura Uzbeki  
No 1, 1967, pp 35-37.  
DIA LN 284-67

Specialization in the Garment Industry, by A. V.  
Polotov, 5 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost',  
No. 2, 1967, pp. 3-6.  
JPRS 40808

USSR  
Economic (Contd)

New Fabrics and Knitted Goods in the 1967 Year  
of Jubilee, by Ye. N. Arens, 8 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost',  
No. 3, Mar 1967, pp. 1-4.  
JPRS 41063

To Improve the Quality and to Increase Produc-  
tion of Scarce Fabrics, by V. Nikitin, 7 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost',  
No. 3, Mar 1967, pp. 30-32.  
JPRS 41063

Production Seminar at Tashkent Cable Plant,  
7 pp.  
RUSSIAN, per, Trud, 15 Apr 1967, p 2.  
JPRS 41241

Discussion of the Report of the USSR Minister  
of Health, B. V. Petrovskiy, 11 pp.  
RUSSIAN, np, Trud, 30 Mar 1967, p. 3.  
JPRS 41016

Effective of Incentive Funds on Production  
Analysed, by Ye. Yefremenko, 5 pp.  
RUSSIAN, np, Trud, 2 May 1967, p. 2.  
JPRS 41681

The Economic Efficiency of Specialisation of  
Duck Farming, by K. I. Karyukina,  
RUSSIAN, per, Trudy Vses Nauch-Issled Tekh  
Inst Tstistev, Vol XXX, 1966, pp 183-187.  
NLL KIS 3913  
On Loan Only

Problems of Cement Workers in the Jubilee Year,  
8 pp.  
RUSSIAN, per, Tsement, No. 1, 1967, pp. 1-2.  
JPRS 41018

First Results of Economic Reform at Cement  
Plants Noted, by S. I. Il'yin, 7 pp.  
RUSSIAN, per, Tsement, No. 1, 1967, pp. 3-4.  
JPRS 41018

Economic Consumption of Cement Is a Task for  
the Entire Country, by P. F. Lopukhov and S. P.  
Vorobov, 6 pp.  
RUSSIAN, per, Tsement, No. 2, 1967, pp. 1-2.  
JPRS 41413

USSR  
Economic (Contd)

All Cement Plants in the Soviet Union Are Being Changed to the New Economic System in 1967, by A. N. Igusov, 5 pp.  
RUSSIAN, per, Tsement, No. 2, 1967, pp. 3-4.  
JPRS 41413

Towards the Further Expansion of Non-Ferrous Metallurgy, by P. Lomako, 14 pp.  
RUSSIAN, per, Tsvetnyye Metally, No. 8, Aug 1966, pp. 1-14.  
JPRS 41039

The Secondary Nonferrous Metal Industry in the Soviet Union, by M. A. Istrin, 5 pp.  
RUSSIAN, per, Tsvetnyye Metally, No. 3, Mar 1967, pp. 1, 6-9.  
JPRS 41138

Soviet Copper Industry, by A. A. Melchanev, 12 pp.  
RUSSIAN, per, Tsvetnyye Metally, No. 4, 1967, pp. 4-11.  
JPRS 41299

Methodological Problems in Formulating A Material Incentive Fund in Industry, by G. A. Yegiasaryan, 15 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta -- Ekonomika, No. 2, Mar-Apr 1967, pp. 3-14.  
JPRS 41639

Correlation of Labor Productivity Growth Rates and Wages at Various Development Stages of Socialist Economy, by I. G. Shilin and I. V. Blayukova, 15 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta -- Ekonomika, No. 2, Mar-Apr 1967, pp. 13-24.  
JPRS 41639

Problems of Increasing the Number of Specialists, by V. G. Sandetskiy, 10 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta -- Ekonomika, No. 2, Mar-Apr 1967, pp. 25-30.  
JPRS 41639

Problems of Price Formation and Statistics of Prices at the Present Stage, by S. Stolyarov, 13 pp.  
RUSSIAN, per, Vestnik Statistiki, No. 3, Mar 1967, pp. 13-23.  
JPRS 40906

USSR  
Economic (Contd)

Industrial Census To Be Taken on the Number of Workers by Age, Sex and Work Experience, by O. Shafranova, 8 pp.  
RUSSIAN, per, Vestnik statistiki, No. 4, 1967, pp. 46-52.  
JPRS 41341

On the Development of An Accounting Interbranch Balance of Production and Distribution for Union Republics, 1966, by V. Vesblan, A. Volkov, and V. Syutkin, 9 pp.  
RUSSIAN, per, Vestnik Statistiki, No. 5, May 1967, pp. 84-88.  
JPRS 41680

First Conference of Young Specialists TsSU USSR, by R. Z., 9 pp.  
RUSSIAN, per, Vestnik Statistiki, No. 5, May 1967, pp. 88-93.  
JPRS 41680

Training of Specialists in Standardisation Must Be Improved, 6 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No. 3, Mar 1967, pp. 38-41.  
JPRS 41129

A Study of Breakdowns of Working Time, by G. Prudenskiy, 17 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, 1967, pp. 51-58.  
JPRS 41152

Problems of Development of Production of Economic Regions, by L. Telepko and Ya. Feygin, 6 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, 1967, pp. 134-136.  
JPRS 41028

International Expenditures and Cooperation Among CEMA Countries, by V. Zhukov and Yu. Ol'sevich, 17 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 3, Mar 1967, pp. 70-80.  
JPRS 41242

Economic Relations Between Industry and Agriculture in Socialist Countries, by V. Starodubrovskaya, 20 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 3, Mar 1967, pp. 90-100.  
JPRS 41242

USSR  
Economic (Contd)

Problems of Economic Forecasting, by A. Klin-skiy, 7 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Mar 1967,  
pp. 149-152.  
JPRS 41437

Unemployment, Scourge of the Worker under Capi-talism, Liquidated in the USSR, by S. Eliashvili, 5 pp.  
RUSSIAN, np, Zarya vostoka, 18 Apr 1967, pp. 2 & 3.  
JPRS 41087

Rapid Growth of Chemical Industry in Georgia, by Ye. Sanadse, 5 pp.  
RUSSIAN, np, Zarya Vostoka, 27 May 1967, pp. 1 and 2.  
JPRS 41642

New Housing Development Built in Novocherkassk, by V. Repnikov, 8 pp.  
RUSSIAN, per, Zhiliishnoye Stroitel'stvo, No. 2, 1967, pp. 10-12.  
JPRS 40882

A Chemical Combine Shifts to the New System of Planning, by M. V. Fel'dman and E. I. Borody-anakiy, 12 pp.  
RUSSIAN, per, Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva imeni D. I. Mendeleeva, No. 2, 1967, pp. 128-133.  
JPRS 41343

Political

The Role of Party Organizations Must Be Increased in Achieving Production Efficiency in Gor'kovskaya Oblast, by G. Trifonov, 10 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 23, Jun 1967, pp. 19-20.  
JPRS 41680

The USSR in the Struggle against the Aggressive Policy of Imperialism, 14 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 3-13.  
JPRS 41015

USSR  
Political (Contd)

The Party and Scientific-Technical Progress, by I. Artobolevskiy and S. Shukhardin, 13 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 25-35.  
JPRS 41015

The New Circumstances Face the Cadres with New Requirements, by A. Kandrenkov, 14 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 36-46.  
JPRS 41015

Marxism and Mao Tse-tungism, by P. Fedoseyev, 17 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 107-122.  
JPRS 41015

The Party and Communism, by V. Stefanov, 16 pp.  
RUSSIAN, per, Kommunist, No 8, May 1967, pp. 41638

Program of the Struggle to Strengthen Peace, 7 pp.  
RUSSIAN, per, Kommunist, No 8, May 1967, pp. 3-8.  
JPRS 41638

The Natural Sciences and the Philosophical World View (Certain Lessons From Lenin's Criticism of Idealism), by A. Bogomolov, Yu. Mal'vil', and I. Narakiy, 12 pp.  
RUSSIAN, per, Kommunist, No 8, May 1967, pp. 34-43  
JPRS 41638

Socialism and Everyday Life, 13 pp.  
RUSSIAN, per, Kommunist, No 8, May 1967, pp. 64-74.  
JPRS 41638

The Aggressive Policy of the US and Reactionary Sociology, by V. Yeroshin, 12 pp.  
RUSSIAN, per, Kommunist, No 8, May 1967, pp. 108-117.  
JPRS 41638

Socialist Tadzhikistan, by M. Kholov, 7 pp.  
RUSSIAN, per, Kommunist Uzbekistana, No 2, 1967, pp 40-45.  
DIA LN 334-67

USSR  
Political (Contd)

Soviet Book Review of R. P. Dutt's Book The Internationale, by A. Veber, 6 pp.  
RUSSIAN, per, Novyy Mir, No. 4, 1967, pp. 263-266.  
JPRS 41516

Capital Construction and the Development of the Material and Technical Base of Communism, by V. D'yachenko, 7 pp.  
RUSSIAN, no, Stroitel'naya gazeta, No. 39, 31 Mar 1967, pp. 2-3.  
JPRS 41316

Transport Builders Adopt New Pledges in Honor of the 50th Anniversary of the October Revolution 7 pp.  
RUSSIAN, per, Transportnaya Stroitel'stvo, No. 4, 1967, pp. 1-2.  
JPRS 41319

Patterns and Forms of the Development Toward Socialism, by A. P. Butenko, 15 pp.  
RUSSIAN, per, Voprosy filosofii, No. 2, 1967, pp. 3-14.  
JPRS 41024

In the Anniversary Year, by V. I. Chuykov, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, No. 1, 1967, pp. 2-3.  
JPRS 41417

Military

Military Application of Rockets, by B. T. Surikov  
RUSSIAN, per, Boyevoye Primeneniye Raket, 1965, pp. 100-110, 8 pp.  
ACSI J-2116  
ID 2204014567  
Incl to 1901004766

The Stability of a Chapman-Jouguet Detonation, by V. V. Pukhnachev,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXLIX, 1963, pp. 798-801.  
\*AEC

Maintenance of Civil Defense Shelters, by Yu. Yu. Kammerer and A. Ye. Kharkevich, 83 pp.  
RUSSIAN, bk, Eksploataziya ubeshishch grazhdanskoy oborony, 1967, pp. 3-98, 112.  
JPRS 41703

USSR  
Military (Contd)

History of the Great Patriotic War of the Soviet Union: Index of Persons & Geographic Locations.  
RUSSIAN, bk Istoriya Velikoy Otechestvennoy Voiny Sovetskogo Soyuza, Vol 2, 1961  
\*ACSI J-28266  
ID 2204032667

Information about Proven Techniques and Flight Safety Must Be Better Publicized, by Avn. N. Shchepankov, 7 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No. 7, Apr 1967, pp. 35-39.  
JPRS 41062

Quality of Personnel Combat Training Must Be Improved, by V. Soshnev, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No. 7, Apr 1967, pp. 61-66.  
JPRS 41062

Interview with Colonel General A. N. Komarovskiy, Deputy Minister of Defense USSR for Construction and Troop Billeting, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No. 8, Apr 1967, pp. 24-28.  
JPRS 41029

Deficiencies in Field Exercises Criticized, by T. Proshak, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No. 8, Apr 1967, pp. 42-46.  
JPRS 41029

Troop Command in Modern Warfare, by A. Tatarchenko, 13 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No. 8, Apr 1967, pp. 47-54.  
JPRS 41029

Psychological Conditioning on Troops for Nuclear War, by M. Korobeynikov, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, No. 8, Apr 1967, pp. 62-67.  
JPRS 41029

Combat Training Methods and Their Shortcomings Described, by Lt. Gen Hsu V. Davidenko, 5 pp.  
RUSSIAN, no, Krasnaya Zvezda, 26 Apr 1967, p. 3.  
JPRS 41308

Training of Crews of Merchant Ships Which are to be Transferred From One Theater to Another, by M. V. Selyanin, 8 pp.  
RUSSIAN, per, Morskoy Sbornik, No 6, 1965, pp. 56-59.  
Dept of Navy 5218 ONI 2332



USSR  
Military (Contd)

Antimissile Defense, by Ye. K. Bragin and A. G. Kubarov, 33 pp.  
RUSSIAN, per, Protivoraketnaya Oborona, 1966, pp. 2-95.  
JPRS 41051

Tactics, by V. G. Reznichenko,  
RUSSIAN, bk, Taktika, Biblioteka Ofitsera, 1966, 408 pp.  
ACSI J-1731  
ID 2204005667

At the Army Motorized Unit, by Vasil'eva, S. N. Berinchuka, 6 pp.  
RUSSIAN, per, Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil, No 9, 1961, pp 87-89.  
DIA LN 159-87

US Antimissile Defense, by I. Ye. Baryshev, 7 pp.  
RUSSIAN, per, Vestnik protivovozdushnoy oborony, No. 3, 1967, pp. 86-88.  
JPRS 41062

At Full Speed, by Ye. Orekhov,  
RUSSIAN, per, Voyennyye Znaniya, 1966.  
\*ACSI J-2736  
ID 2204026467

A Unified System of Defense, by L. Vinogradov, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No. 1, 1967, pp. 16-17.  
JPRS 41417

Study In a School for Submarine Officers, by P. Lavrent'yev, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 4, Apr 1967, pp. 8-9.  
JPRS 41108

Medical Evacuation, by Yu. Sipaylov, 6 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 4, Apr 1967, pp. 22-23.  
JPRS 41108

Improvised Decontamination, by I. Sakharov, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 4, Apr 1967, pp. 24-25.  
JPRS 41108

USSR  
Military (Contd)

Civil Defense In a City Residential Sector, by N. Gerasimov, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, No 4, Apr 1967, pp. 26-27.  
JPRS 41108

Geographic

Alma-Ata, by A. S. Tikhomirov, 10 pp.  
RUSSIAN, per, Geografiya v Shkole, No 4, 1966, pp 24-30.  
DIA LN-579-66

Manual on the Construction of a Geodetic Network in the USSR,  
RUSSIAN, rpt, Instruktsiya o Postroyeniy Gosudarstvennoy Geodezicheskoy Seti SSSR, pp 9-53, 340-341, 66, 339.  
\*ACSI J-2810  
ID 2204027867

On Trans-Atlantic Routes to Fishing Grounds, by I. A. Smirnov,  
RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 43-44.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Sociological

The Five-Day Working Week--A Major Social Measure, by B. Gostev, 10 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 58-64.  
JPRS 41015

The Experience of Permskaya Oblast with the Five-Day Working Week, by K. Galanshin, 9 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 65-71.  
JPRS 41015

The Psychology of Creative Work: Certain Results and Prospects, by A. Brushlinskiy, 14 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 75-86.  
JPRS 41015

Scientific Prognostication of Economic Development in the USSR, by A. Yefimov and V. Kirichenko, 13 pp.  
RUSSIAN, per, Kommunist, No. 5, Mar 1967, pp. 87-97.  
JPRS 41015

Review of Literary Criticism in Novyy Mir, by A. Metchenko, 11 pp.  
RUSSIAN, per, Kommunist, No. 6, Apr 1967, pp. 115-127.  
JPRS 41251

The Drama and the Theater of Our Time, by A. Solodovnikov, 13 pp.  
RUSSIAN, per, Kommunist, No. 8, May 1967, pp. 54-63.  
JPRS 41638

Critique of Asimov Article on Life in 1990 in Literaturnaya Gazeta, by Igor' Bestushev, 7 pp.  
RUSSIAN, np, Literaturnaya Gazeta, 19 May 1967, p. 12.  
JPRS 41597

New Soviet Labor Legislation Enacted Regarding Holiday Work, by M. Pankin, 5 pp.  
RUSSIAN, per, Okhrana truda i sotsial'noye strakhovaniye, No. 4, Apr 1967, pp. 30-31.  
JPRS 41019

USSR  
Sociological (Contd)

The Five-Day Work Week with Two Days Off, by V. Ososkov, 11 pp.  
RUSSIAN, per, Partinaya Zhizn, No. 6, 1967, pp. 13-19.  
JPRS 41019

Proposed Method for Cash Incentive Awards, by Kh. Levin and Ya. Rusinov, 7 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No. 3, Mar 1967, pp. 50-54.  
JPRS 40677

What is New in the Wage Classification Manual for Workers of the Fishing Industry, by M. N. Brianskaya.  
RUSSIAN, per, Rybnoe Khoz, No. 3, 1967, pp. 74-75.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial  
Bureau of Foreign Fisheries

The Labor Protection and Safety Techniques Should be of High Quality.  
RUSSIAN, per, Rybnoe Khoz, No. 3, 1967, pp. 90-91.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

In the Council of Ministers of the Lithuanian SSR.  
RUSSIAN, per, Rybnoe Khoz, No. 3, 1967, pp. 92.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

The Soviet Academic Settlement in Irkutsk, Eastern Siberia, by M. Odinstov, 5 pp.  
RUSSIAN, np, Sovetskaya Rossiya, 14 Mar 1967, p. 3.  
JPRS 40837

An Analysis of the Soviet Wage Structure, by Z. Zhdanova, 6 pp.  
RUSSIAN, per, Sovetskiye Profsoyuzy, No. 3, 1967, pp. 31-32.  
JPRS 40806

Schools Criticised in Failure To Aid Students in Vocation Selection, by V. Shubkin, 6 pp.  
RUSSIAN, np, Trud, 2 May 1967, p. 2.  
JPRS 41681

USSR  
Sociological (Contd)

Way of Life, by A.S. Yakovlev.  
RUSSIAN, bk, Tsel' Zhizni,  
1966, 543 pp.  
\*FTD HT 23-956-67

Level of Development of Social Production and  
Its Proportions Analyzed, by A. Notkin, 17 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, Jan  
1967, pp. 15-28.  
JPRS 40880

On the Scientific Justification of Proportions  
in Social Reproduction, by I. Brover, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, 1967,  
pp. 41-50.  
JPRS 41028

Quantitative Methods in Sociology, by V. N.  
Shubkin, 17 pp.  
RUSSIAN, per, Voprosy Filosofii, No. 3, 1967,  
pp. 30-40.  
JPRS 41353

Improving Industrial Health and Safety Condi-  
tions, by Ye. Lopatin, 5 pp.  
RUSSIAN, per, Zhishchnoye i Kommunal'noye  
Khozyaystvo, No. 2, 1967, pp. 10-11.  
JPRS 40806

50 Years of Great Achievements, by  
V. Kamenskiy, 10 pp.  
RUSSIAN, per, Zhishchnoye Stroitelstvo,  
No 3, 1967, pp 2-6.  
DIA LN 345-67

Lenin and Literature, by Ch'oe Ilryong, 11 pp.  
KOREAN, np, Munhak Sinmun, 21 Apr 1967, p. 4.  
JPRS 41432

USSR  
Biographic

Award of Lenin Prizes for the Creation of New  
Cotton-Picking and Tea-Collecting Machines, by  
V. Korbut, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 20,  
May 1967, p. 7.  
JPRS 41641

Candidates for State Prizes, 12 pp.  
RUSSIAN, np, Izvestiya, 12 May 1967, p. 3.  
JPRS 41234

Opening Address by Vice-President of the Academy  
of Sciences D. V. Sokol'skiy at the General Meet-  
ing of the Academy of Sciences Kazakh SSR, 9 pp.  
RUSSIAN, per, Vestnik Akademii Nauk Kazakhskoy  
SSR, No. 3, 1967, pp. 3-8.  
JPRS 41352

Report of Doctor N. D. Dzhandil'din, Academician  
Secretary of the Presidium of the Academy of  
Sciences Kazakh SSR, at the General Meeting of  
the Academy, 10 pp.  
RUSSIAN, per, Vestnik Akademii Nauk Kazakhskoy  
SSR, No. 3, 1967, pp. 9-22.  
JPRS 41352

On the 60th Birthday of Academician V. P.  
Komisharenko of the Ukrainian Academy of Sciences,  
by O. F. Makarchenko and V. S. Lusenko, 5 pp.  
UKRAINIAN, per, Fiziologichnyi zhurnal, Vol  
XIII, No. 1, 1967, pp. 134-137.  
JPRS 40838

EASTERN EUROPE

Economic

The Principal Rates and Proportions of the  
Development of the People's Economy during the  
1966-1970 Five-Year Plan, by Besnim Bardhosi,  
6 pp.  
ALBANIAN, per, Ekonomia Popullore, No. 1, Jan-  
Feb 1967, pp. 23-35.  
JPRS 40879

The Steady Rise in National Income -- An Expres-  
sion of the Consolidation of the Country's  
Economic Potential, by Abdyl Backa and Aleksandra  
Karaguni, 5 pp.  
ALBANIAN, per, Ekonomia Popullore, No. 1, Jan-  
Feb 1967, pp. 48-61.  
JPRS 40879

Eastern Europe  
Economic (Contd)

The Prospects of the People's Economy in the Fourth Five-Year Plan, 9 pp.  
ALBANIAN, per, Ekonomia Popullore, No. 1, Jan-Feb 1967, pp. 62-69.  
JPRS 40879

Lessening the Disproportion between Agriculture and Industry during the Current Five-Year Plan, by Besim Bardhoshi, 5 pp.  
ALBANIAN, np, Zeri i Popullit, 20 Jan 1967, pp. 2-3.  
JPRS 40879

Emphasis Placed on Bulgarian Machine-Building Industry Under Fifth Five-Year Plan, by Dimo Gorev, 7 pp.  
BULGARIAN, per, Bulgarski profsuyuzi, Vol 2, No 4, Apr 1967, pp. 7-9.  
JPRS 41621

Regulation on the Organization and Functions of the Ministry of Construction, 7 pp.  
BULGARIAN, per, Durzhaven vestnik, No 32, 21 Apr 1967, pp. 1-3.  
JPRS 41161

New Directives Announced for Admission to Bulgarian Secondary Schools, by G. Ganev, 27 pp.  
BULGARIAN, np, Durzhaven vestnik, No 33, 25 Apr 1967, pp. 1-7.  
JPRS 41075

Regulations Announced for Navigation on Bulgarian Inland Waterways, 18 pp.  
BULGARIAN, np, Durzhaven vestnik, No. 38, 16 May 1967, pp. 1-6.  
JPRS 41394

The Activities of the "Energoobedinenie" (Consolidated Power) DSO (State Economic Association) in 1966, 11 pp.  
BULGARIAN, per, Energetika, No 3, Mar 1967, pp. 32-34.  
JPRS 41393

The Year of International Tourism in Bulgaria, by Prof. Lyubomir Dinev, 8 pp.  
BULGARIAN, per, Geografiya, No. 3, Mar 1967, pp. 1-7.  
JPRS 41312

Eastern Europe  
Economic (Contd)

The Cement Plant Near Zlatna Panega, by Radka Naydanova, 5 pp.  
BULGARIAN, per, Geografiya, No 4, Apr 1967, pp. 1-4.  
JPRS 41629

Tendencies in the Territorial Distribution of Production Forces, by Khristo Kunchev, 8 pp.  
BULGARIAN, per, Ikonomicheski zhivot, No 17, 27 Apr 1967, pp. 2-3, 6.  
JPRS 41335

Contribution of Soviet Aid to the Development of Bulgaria's Economy Emphasized, by Zhivko Zhivkov, 9 pp.  
BULGARIAN, per, Ikonomicheski Zhivot, No. 18, 4 May 1967, pp. 1-2.  
JPRS 41311

Objectives of the Fifth Five-Year Plan in the Bulgarian Chemical and Metallurgical Industry Discussed, by Georgi Pavlov, 11 pp.  
BULGARIAN, per, Khimiya i Industriya, Vol 39, No. 1, Jan-Mar 1967, pp. 3-6.  
JPRS 41397

Bulgaria Reports on Progress in Studying and Maintaining the Danube Waterway, 6 pp.  
BULGARIAN, per, Korabostroene i koraboplavane, Feb 1967, pp. 1-3.  
JPRS 41398

Intensive Development Methods and Effective Utilization of Manpower, by Misho Mishev, 13 pp.  
BULGARIAN, per, Novo Vreme, No. 4, Apr 1967, pp. 31-40.  
JPRS 41301

The Development of Cooperative Labor Farms, by Mikhail Minkov, 13 pp.  
BULGARIAN, per, Novo Vreme, No 4, Apr 1967, pp. 41-51.  
JPRS 41330

The Problem of Remuneration in the Cooperative Labor Farms, by Rangel Trendafilov, 11 pp.  
BULGARIAN, per, Planovo stopanstvo i statistika, No 3, Mar 1967, pp. 33-42.  
JPRS 41158

Eastern Europe  
Economic (Contd)

Basic Features of the New Instructions, Forms and Indicators for the Formulation and Approval of the State National Economic Plan, by Ivan Donkov, 12 pp.

BULGARIAN, per, Planovo stopanstvo i statistika, No. 4, Apr 1967, pp. 3-14.  
JPRS 41411

Problems in the Use of Manpower in Agriculture, by Todor Avramov and Khristo Khristov, 9 pp.  
BULGARIAN, per, Planovo stopanstvo i statistika, No. 4, Apr 1967, pp. 48-55.  
JPRS 41396

The Activity of the Scientific-Research Planning Economics Institute of the State Planning Committee, by Vekil Vanov, 11 pp.  
BULGARIAN, per, Planovo stopanstvo i statistika, No. 4, Apr 1967, pp. 77-83.  
JPRS 41411

Structural Changes in Bulgarian Manpower and Its Effective Use, by Yancho Georgiev, 11 pp.  
BULGARIAN, per, Politicheska prosveta, No. 4, Apr 1967, pp. 35-42.  
JPRS 41499

Latest Developments in Bulgarian Radioelectronic Industry Listed, by Aleksandur Kirchev, 11 pp.  
BULGARIAN, per, Ratsionalizatsiya i Standardizatsia, Vol. 17, No. 1, Jan 1967, pp. 25-28.  
JPRS 41021

Application of Economic Accounting in Bulgaria's New System of National Economy Management Discussed, by Dr. Dimitur Ts. Yordanov, 10 pp.  
BULGARIAN, per, Schetovodstvo i kontrol, No. 2, Mar 1967, pp. 3-9.  
JPRS 41499

Problems of Farm Mechanisation in Bulgaria Discussed, by Dimitr Koev, 18 pp.  
BULGARIAN, per, Selanstopanska nauka, Vol. 6, No. 1, Jan-Mar 1967, pp. 41-52.  
JPRS 41330

New Management System in Transportation Policy, by Antonin Paltram, 10 pp.  
CZECH, per, Nova Mysl, No. 7, 4 Apr 1967, pp. 7-10.  
JPRS 41059

Eastern Europe  
Economic (Contd)

Economic Cooperation Under CEMA, by Josef Lasek, 10 pp.  
CZECH, per, Nova Mysl, Vol. XXI, No. 9, 3 May 1967, pp. 26-29.  
JPRS 41389

Series of Articles on Food Packaging, CZECH, per, Obaly, No. 1, 1967, Vol. XIII, pp. 1-4, 4-9, 7-8, 9-12, 12-14.  
ACSI J-2390  
ID 2204018867

Waterways and River Traffic in Poland, by M. Milkowski, 10 pp.  
FRENCH, per, Revue de la Navigation Interieur et Rhénane, Jan 1967, pp. 11-14.  
DIA LN 330-67

Basic Questions of International Division of Labor between Socialist and Developing Countries, by Dr. O. Hofmann, 11 pp.  
GERMAN, per, Aussenhandel und inner-deutscher Handel, No. 2, Feb 1967, pp. 9-12.  
JPRS 40813

Organization and Stimulation of Foreign Customer Services of the GDR Socialist Industrial Enterprises, by H. Bruder, 7 pp.  
GERMAN, per, Aussenhandel, No. 4, Apr 1967, pp. 17-19.  
JPRS 41422

Socialist States Support Division of Labor and Industrialization of the Developing Countries, by Dr. O. Hofmann, 17 pp.  
GERMAN, per, Aussenhandel, No. 4, Apr 1967, pp. 36-42.  
JPRS 41422

Some Questions Concerning Foreign Economic Relations among the CEMA Countries, by Julius Balkov, 10 pp.  
GERMAN, per, Aussenhandel, No. 4, Apr 1967, pp. 33-36.  
JPRS 41422

Current Questions of Economic Cooperation among CEMA Countries, by Julius Balkov, 10 pp.  
GERMAN, per, Aussenhandel und innerdeutscher Handel, No. 2, pp. 6-8 and No. 3, pp. 16-18, Feb & Mar 1967.  
JPRS 40813

Eastern Europe  
Economic (Contd)

The Most Pressing Tasks of the Cement, Lime, Gypsum and Chalk Industries, by M. Meissner, GERMAN, per, Baustoffindustrie, No 10, 1965, pp 302; 303; 304.  
DIA LN 213-67A

Information on the Development of the Building Materials Industry, by G. Oehlert, 6 pp. GERMAN, per, Baustoffindustrie, Vol X, No. 4, 1967, pp. 97-99.  
JPRS 41394

Economic Aspects in the Choice of Technological Variants in Open-Pit Mining of Brown Coal, by Alfred Neumann, 16 pp. GERMAN, per, Bergbautechnik, Vol XVII, No. 4, Apr 1967, pp. 179-183.  
JPRS 41372

The Commercial-Political Situation of Shipping on the German Rhine, GERMAN, per, Binnenschiffahrt-Nachrichten, Vol XXI, No 37, Edition A, Sept 1966, pp 650-654.  
DIA LN 598-66B

Measures to Change Fees and Prices in Postal Service and Telecommunications, by Heinz Aull, 11 pp. GERMAN, per, Die Deutsche Post, Vol. 12, No. 1, Jan 1967, pp. 4-6.  
JPRS 41469

Information on the Construction of the Eibenstock Dam, by V. Kockerits and L. Liebl, 16 pp. GERMAN, per, Eisenbahnproxi, No. 5, May 1967, pp. 156-160, 165.  
JPRS 41394

The Gas Supply in Hungary, by Georg Koranyi, 6 pp. GERMAN, per, Energietechnik, Vol 17, No. 3, Mar 1967, pp. 107-109.  
JPRS 40771

Ranking of East Germany As An Industrial Power, by Horst Demmler, 8 pp. GERMAN, per, Frankfurter Allgemeine Zeitung, No. 94, 22 Apr 1967, p. 5.  
JPRS 41411

Eastern Europe  
Economic (Contd)

Uniform Issuance of Credit and Control in Agricultural Enterprises, by Willi Kroel, 6 pp. GERMAN, per, Deutsche Finanzwirtschaft, No 6, Mar 1967, pp. 15-17.  
JPRS 41102

Realization of the New Role of the Banking System, by Alfred Birner, 5 pp. GERMAN, per, Deutsche Finanzwirtschaft, No. 8, Apr 1967, pp. G2-G3.  
JPRS 41301

Utilization of the Water of the Middle And Lower Danube, by EdeKertai, 19 pp. GERMAN, per, Die Donau Als Europäische Kraftwasser-Strasse, No 46, 1965, pp 49-70.  
DIA LN 180-67

Some Key Projects of the Electrical Industry, by H. Heise, 10 pp. GERMAN, per, Elektrie, No. 4, Apr 1967, pp. 119-122.  
JPRS 41011

East German Transport Minister Discusses Development Plans, by Dr. Erwin Kramer, 5 pp. GERMAN, per, Fahrt frei, No 17, Apr 1967, p. 5.  
JPRS 41194

Development of Production Technology from the Sixth to the Seventh Party Congresses, by G. Montag, 6 pp. GERMAN, per, Fertigungstechnik und Betrieb, No. 4, Apr 1967, pp. 236-238.  
JPRS 40873

The Tasks, Rights, and Duties of People-Owned Production Enterprises in East Germany, 29 pp. GERMAN, per, Gesetzblatt der Deutschen Demokratischen Republik, Part II, No 21, 9 Mar 1967, pp. 121-134.  
JPRS 40717

Order On the Usufruct of Scientific-Technical Results in East Germany -- Dated 22 Mar 1967, 6 pp. GERMAN, per, Gesetzblatt der Deutschen Demokratischen Republik, Part II, No 32, 17 Apr 1967, pp. 197-199.  
JPRS 40964

Eastern Europe  
Economic (Contd)

Socialist Rationalization Promotes Development of Steel and Rolling Mills Association of People-Owned Enterprises, by Manfred Schubert, 8 pp.

GERMAN, per, Neue Hütte, No. 4, Apr 1967, pp. 193-195.  
JPRS 41064

Plastics-Processing Industry, 1955-1965, by G. Kipf, 13 pp.  
GERMAN, per, Plaste und Kautschuk, Vol. 14, No. 3, Mar 1967, pp. 137-141.  
JPRS 40941

Unsolved Basic Economic Problems, by Hannsboerg Buck, 38 pp.  
GERMAN, per, SBZ Archiv, No 1/2, Jan, pp. 3-7; No 4, Feb, pp. 57-60; and No 6, Mar, pp. 89-92, 1967.  
JPRS 41214

Industrial Research Lagging In East Germany, by Ludwig Auerbach, 7 pp.  
GERMAN, per, SBZ Archiv, No 8, Apr 1967, pp. 116-118.  
JPRS 41309

The New Freight Numbering System, 13 pp.  
GERMAN, per, Schienenfahrzeuge, No 7, 1966, pp 1-12.  
DIA LN 253-67

115 Vessels Classified in 1966, by Artur Schwerdt and Guntar Hoefgen, 5 pp.  
GERMAN, per, Seeverkehr, Vol 7, No 4, Apr 1967, pp. 137, 138.  
JPRS 41296

The 1967 Plan for Railroad Construction in East Germany, by Dieter Weiss, 7 pp.  
GERMAN, per, Signal und Schiene, No. 3, Mar 1967, pp. 91-93.  
JPRS 40771

The Youngest Young City (eggesin), by Rudolf Kornagel, 5 pp.  
GERMAN, Stadt und Gemeinde, No 10, 1966, pp 6-7.  
DIA LN 89-67C

First-Hand Information (About Many Cities), GERMAN, per, Stadt und Gemeinde, No 10, 1966, pp. 22-23.  
DIA LN 89-67C

Eastern Europe  
Economic (Contd)

Structure of Basic Assets of the Socialist Economy, by Gunter Otto, 23 pp.  
GERMAN, per, Statistische Praxis, No 4, Apr 1967, pp. 207-215.  
JPRS 41243

Swiss Rhine Shipping in the Year 1965, by Werner Mangolf, 23 pp.  
GERMAN, rpt, Strom und See, Jan 1966, pp 1-12.  
DIA LN 76-67B

The Baltic Seaport Szczecin - Poland's Largest Port,  
GERMAN, per, Verkehr, Oct 1962 - Jan 1963, pp 115-117.  
DIA LN 428-68

The Harbor of Luebeck in 1962, by Klemens Piotrowski, W. Neumann, 14 pp.  
GERMAN, per, Verkehr, Oct 1962 - Jan 1963, pp 118-119.  
DIA LN 428-66

Hamburg and the German Federal Railroad's Position Against the North-South Canal.  
GERMAN, per, Verkehr, Oct 1962 - Jan 1963, pp 118.  
DIA LN 428-66

Conference on Transportation Laws Held in Budapest,  
GERMAN, per, Verkehr, Oct 1962-Jan 1963, pp 1462.  
DIA LN 428-66

The Modern Equipped Norht Canal in Completion, by Fortsetzung, Schlub,  
GERMAN, per, Wasserwirtschaft-Wassertechnik, No 3, 1966, pp 105-107.  
DIA LN 612-66

Socialist Commodity-Money Relationships Help to Increase the Effectiveness of the Economy, by Johannes Pils, 11 pp.  
GERMAN, per, Die Wirtschaft, No 9, 2 Mar 1967, pp. 8-9.  
JPRS 41060

**Eastern Europe  
Economic (Contd)**

The Transportation Policy Situation; Inland Navigation from the European Point of View, by Paul Beyer, Hans-Christoph Seebohm, 21 pp. GERMAN, per, Zeitschrift für Binnenschifffahrt, No 11, 1965, pp 394-412.  
DIA LN 175-67

The New System of Product Marketing, by Jozsef Bogнар, 6 pp.  
HUNGARIAN, per, Figyelo, 19 Apr 1967, p. 3.  
JPRS 40964

Discussion of Changes in the Investment Policy System in Hungary, by Laszlo Molnar and Istvan Tiszai, 8 pp.  
HUNGARIAN, per, Figyelo, 19 Apr 1967, p 5.  
JPRS 41214

Survey of the Machine Industry, by Dr. Sander Nagy, 8 pp.  
HUNGARIAN, np, Figyelo, No. 19, 10 May 1967, p. 5.  
JPRS 41528

Advantages of Goose Meat Production in Hungary Emphasized, by Marton Lovas, 5 pp.  
HUNGARIAN, per, Figyelo, No. 19, 10 May 1967, p. 8.  
JPRS 41421

Bank Credit in the New Economic Mechanism, by Dr. Lajos Acs, 6 pp.  
HUNGARIAN, per, Figyelo, 17 May 1967, p. 3.  
JPRS 41301

New Economic Information System in Hungary, by Bela Zentai, 8 pp.  
HUNGARIAN, per, Figyelo, 31 May 1967, p. 3.  
JPRS 41697

Situation and Tasks of the Hungarian Machine Industry, by Istvan Kovacs, 26 pp.  
HUNGARIAN, per, Gépgyártás Technológia, Vol VII, No 4, Apr 1967, pp. 145-154.  
JPRS 41121

Raise Productivity under the New Economic Guidance System, by Dr. Zoltan Roman, 10 pp.  
HUNGARIAN, per, Ipargazdasag, No. 3, Mar 1967, pp. 12-15.  
JPRS 41301

**Eastern Europe  
Economic (Contd)**

Regulation of Enterprise Profits, by Gabor Revesz, 15 pp.  
HUNGARIAN, per, Kozgazdasagi Szemle, No 5, May 1967, pp. 537-551.  
JPRS 41335

Use of Condensed Programming Models in Five-Year Planning Programs, by Janos Kornai, and Mrs. Laszlo Ujlaki, 20 pp.  
HUNGARIAN, per, Kozgazdasagi Szemle, No 5, May 1967, pp. 552-565.  
JPRS 41646

The Tasks of Water Transportation in 1967, by Jozsef Belay, 11 pp.  
HUNGARIAN, per, Kozlekedesi Kozlony, No 12, 19 Mar 1967, pp. 205-209.  
JPRS 41106

Main Characteristics of the Third Five-Year Plan for Transportation and Communication, by Rezső Bajusz, 19 pp.  
HUNGARIAN, per, Kozlekedesi Kozlony, 30 Apr 1967, pp. 311-317.  
JPRS 41398

Technical Economic Level of the European Inland Navigation, by Zoltan Stankoczy, 18 pp.  
HUNGARIAN, per, Kozlekedestudomanyi Szemle, Sept 1966, pp 386-393.  
DIA LN 170-67A

Transportation Accomplishments on the Second Five-Year Period, by Palos Istvan, 16 pp.  
HUNGARIAN, per, Kozlekedestudomanyi Szemle, Oct 1966, pp 434-440.  
DIA LN 170-67B

Profit, Fixed- and Circulating Funds At Foreign Trade Enterprises, by Pal Gondos, 8 pp.  
HUNGARIAN, per, Kulkereskedes, No 5, May 1967, pp. 134-136.  
JPRS 41388

Trends and Possibilities of the Export of Fresh Vegetables, by Andras Elias, 5 pp.  
HUNGARIAN, per, Magyar Mezogazdasag, Vol 22, No 22, 31 May 1967, pp. 9-10.  
JPRS 41645

Building Materials Industry, by Istvan Palos, HUNGARIAN, rpt, Magyarorszag Cimtara, 1 Jan, 1967, pp 147-150.  
DIA LN 258-67



Eastern Europe  
Economic (Contd)

The Tasks of Labor Under the New Index-Free Economic Guidance System, by Dr. Pal Komutza, 12 pp.  
HUNGARIAN, per, Munkanyi Szemle, No 4, Apr 1967, pp. 126-130.  
JPRS 41335

Our Economic Reform and Public Opinion: Does Enterprise Independence Endanger the Interests of Consumers?, by Istvan Foldes, 8 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, No 6, Jun 1967, pp. 97-103.  
JPRS 41697

Forced Concentration of Fish - a Basis for Development of New Fishing Technique, by Marion Szatybelko, POLISH, per, Budownictwo Okretowe, Vol XI, No 7-8, 1966, pp 332-336.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Adjustment of the Production of the Footwear Industry to Consumers' Needs, by Zenobia Ptassynska, 8 pp.  
POLISH, per, Finanse, Vol XVII, No 3, Mar 1967, pp. 41-47.  
JPRS 41106

Achievements of Housing Cooperatives in 1966, by Witold Kasperaki and Ryszard Jajszczyk, 9 pp.  
POLISH, per, Gospodarka i Administracja Terenowa, No. 4, Apr 1967, pp. 4-6.  
JPRS 41469

Cooperation of the Investment Bank with the Peoples' Councils, by Adam Trybus, 7 pp.  
POLISH, per, Gospodarka i Administracja Terenowa, No. 4, Apr 1967, pp. 20-22.  
JPRS 41469

Management Experiments in Small-Scale Industry in Poland Described, by Wladimir Lechowicz, 10 pp.  
POLISH, per, Gospodarka i Administracja Terenowa, Vol. 6, No. 5, May 1967, pp. 4-6.  
JPRS 41519

Eastern Europe  
Economic (Contd)

Problems of Long-Range Planning in Water Resource Management, by Edmund Poswa and Antoni Symonowicz, 15 pp.  
POLISH, per, Gospodarka Wodna, No 3, Mar 1967, pp. 81-86.  
JPRS 41220

The German Railroads in 1962-1963, by Sotir Introna, 35 pp.  
ITALIAN, per, Ingegneria Ferroviaria, Feb 1964, pp 121-137.  
DIA LN 252-67

Discussion of the Hungarian Five-Year Plan, by Konrad Sutaraki, 11 pp.  
POLISH, per, Mechanizacja Rolnictwa, No 1, 1-15 Jan 1967, pp. 8-10.  
JPRS 41214

Order of the Central Office of Water Economy and the Minister of Community Economy - 28 Dec 1964, 5 pp.  
POLISH, per, Monitor Polski, 2, 23, 45, 51, 1965, pp 10, 209, 524, 406.  
DIA LN 329-67

Development of the Motorization in the "Five Year Plan" for 1966-1970, by Kazimierz Kotszko, 12 pp.  
POLISH, per, Motoryzacja, No 242, Jan 1967, pp 1-7.  
DIA LN 289-67

Expansion of Refining Industry 1966-1970 by Jerzy Kramarz, 5 pp.  
POLISH, per, Nafta, No. 2, Feb 1967, pp. 59-61.  
JPRS 40941

The Development of the Polish Petroleum Industry in 1966-1967, by Franciszek Waszolek, 7 pp.  
POLISH, per, Nafta, No. 3, Mar 1967, pp. 77-80.  
JPRS 41372

490-mm Diameter Drilling Bit for Drilling Ventilation Shafts by the RIB Methods, by Jerzy Slys, 7 pp.  
POLISH, per, Nafta, No. 3, Mar 1967, pp. 87-89.  
JPRS 41372

Eastern Europe  
Economic (Contd)

Attempts to Obtain Transformer Oil From Paraffin Crudes, by Dr. Włodzimierz Kisielow, Bolesław Jaroński, Małgorzata Grochowska, Piotr Orzechowski, 7 pp.  
POLISH, per, Nafta, No. 3, Mar 1967, pp. 94-96.

JPRS 41372

Production Reserves in PGRs (State Farms), by Stefan Kuhl, 9 pp.

POLISH, per, Nowe Drogi, No. 5, May 1967, pp. 26-33.

JPRS 41158

Present and Long-Range Trends in the Work of Organs Administering Justice, by Stanisław Walczak, 15 pp.

POLISH, per, Nowe Prawo, No. 1, Jan 1967, pp. 5-19.

JPRS 40848

Prospects for the Purchase of Farm Products in 1967 in Poland, by Stanisław Szczepaniak, 8 pp.

POLISH, per, Nowe Rolnictwo, Vol 16, No 5, 1-15 Mar 1967, pp. 10-12.

JPRS 40995

Improving the Financial System of the Agricultural Producers' Cooperatives, by Antoni Gemel, 9 pp.

POLISH, per, Nowe Rolnictwo, No 6, 16-31 Mar 1967, pp. 24-25.

JPRS 41120

Cities, 7pp.  
POLISH, per, Polska Ludowa, 1965, pp 156-157, 401-402.

DIA LN 326-67

Development Program of the Sea-Fish Industry in Gdansk Voivodship for 1960-1980, by Bolesław Kowalewski.

POLISH, per, Prace Morskiego Instytutu Rybackiego, Vol 12, Ser. B, 1964, pp 241-262.

CFSTI TT 66-57053

Economic Significance of Baltic Seaweed in Poland, by Andrzej Ropelewski.

POLISH, per, Prace Morskiego Instytutu Rybackiego w Gdyni, Vol 13, Ser. C, 1964, pp 33-39.

CFSTI TT 66-57062

Eastern Europe  
Economic (Contd)

Market Production Problems of Polish Small Manufacture, by Mieczysław Hoffmann, 12 pp.  
POLISH, per, Przegląd drobnej wytwórczości, No. 7, June 1967, pp. 1-5.

JPRS 41429

Basic Problems in the Development of Farm Machines and Equipment, by Kazimierz Sobczak, 6 pp.

POLISH, per, Przegląd Drobnej Wytórczości, No. 8, Apr 1967, pp. 2-4.

JPRS 41396

Poland's Problems in Delivering Equipment to Power Plant in Barauni (India), by Jerzy Galarza, 11 pp.

POLISH, per, Przegląd Elektrotechniczny, Vol. XLIII, No 3, Mar 1967, pp. 118-120.

JPRS 41388

An Outline of Research and New Technology Trends in the Coal Mining Industry, by Jan Mitrega and Marcin Borecki, 15 pp.

POLISH, per, Przegląd Górnictwa, No 4, Apr 1967, pp. 155-161.

JPRS 41393

The Reform in Classification of Cargo Transports in Transportation, by Wojciech Morawski, 9 pp.

POLISH, per, Przegląd Komunikacyjny, 1966, pp 450-455.

DIA LN 191-67

Basic Tasks of the Flour Milling Industry in 1966-1970, by Czesław Rybicki, 8 pp.

POLISH, per, Przemysł Spożywczy, No. 2, 1967, pp. 3-6.

JPRS 40958

The Coordination and Concentration of Construction Investments in the Food Processing Industry, by T. Kluk, 13 pp.

POLISH, per, Przemysł Spożywczy, No. 3, 1967, pp. 3-7.

JPRS 41312

Market Supply of Food in 1967, by M. Stepinski, 6 pp.

POLISH, per, Przemysł Spożywczy, No. 3, 1967, pp. 25-26.

JPRS 41314

Eastern Europe  
Economic (Contd)

Vocational Training in 1966 - 1970, by Marian Walczak, 7 pp.  
POLISH, per, Szkola Zawodowa, No. 3, Mar 1967, pp. 5-8.  
JPRS 40892

Theory of Marine Fishery Development, by A. Niegolewski,  
POLISH, rpt, Teoria Rozwoju Rybolowstwa Morskiego, 1965, 100 pp.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Technological Development Trends in the Exploitation and Processing of Domestic Iron Ores, by Boguslaw Barczyk, 11 pp.  
POLISH, per, Wiadomosci Gornicze, Vol. XVIII, No. 3, Mar 1967, pp. 65-71.  
JPRS 40814

Investment Problems in the Food-Processing Industry in 1966-1970, by Artur Boroqicz, 12 pp.  
POLISH, per, Wiadomosci Narodowego Banku Polskiego, No. 3, Mar 1967, pp. 102-107.  
JPRS 41314

Preliminary Examination of the Operation of B-23 Trawlers on Fishing Grounds of the Northwest African Shelf, by Jozef Swiniarski.  
POLISH, per, Zeszyty Naukowe Wyzszej Szkoły Rolniczej w Olsztynie, Vol 20, No 424, 1965, pp 51-67.  
CFSTI TT 66-57063

Marine Fisheries, Collected Articles, by Marion Ziecik,  
POLISH, rpt, Zeszyty Naukowe Wyzszej Szkoły Rolniczej w Szczecinie, No 22, 1966,  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Fish Offals in Pig Feeding Part 5, by Czeslaw Lewicki.  
POLISH, per, Zeszyty Problemowe Postepow Nauk Rolniczych, No 54, 1964, pp 131-135.  
CFSTI TT 66-57057

1966 Tasks of the Electric Machine Industry, by Jan Ram, 7 pp.  
POLISH, mp, Zycie Gospodarcze, No 14, 2 Apr 1967, pp. 1 and 4-5.  
JPRS 41121

Eastern Europe  
Economic (Contd)

The 1966 Fuel Base - The Coal Dilemma, by Wieslaw Szyndler-Glowacki, 8 pp.  
POLISH, mp, Zycie Gospodarcze, No. 17, 23 Apr 1967, pp. 1, 6.  
JPRS 41397

Zinc Production, by Krzysztof Krauss, 6 pp.  
POLISH, mp, Zycie Gospodarcze, No. 17, 23 Apr 1967, pp. 1, 7.  
JPRS 41397

Investment Goods Export, by Pawel Marosewski, 6 pp.  
POLISH, mp, Zycie Gospodarcze, No 17, 23 Apr 1967, p. 9.  
JPRS 41388

Difficulties in Stabilising the Internal Market Situation, by Grzegorz Pisarski, 6 pp.  
POLISH, per, Zycie Gospodarcze, No 2, 14 May 1967, pp. 1, 4.  
JPRS 41296

1966 Achievements of CEMA Countries -- Industry, by Miroslaw Dynier and Kazimierz Neumann, 7 pp.  
POLISH, per, Zycie Gospodarcze, No. 20, 14 May 1967, p. 7.  
JPRS 41311

Study Program for Developing a Coastal Fishery Base with a Pier Using the Example of Jarow-slawiec, by Marion Ziecik, A. Goska,  
POLISH, rppt, Zeszyty Naukowe Wyzszej Szkoły Rolniczej w Szczecinie, No 22, 1966, pp 87-125.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Scientific Organisation of Production and Labor An Important Step in Developing the Work on State Farms, by A. Miculescu, 5 pp.  
RUMANIAN, mp, Agricultura Socialista, Vol 5, No 16, 20 Apr 1967, pp. 1-2.  
JPRS 41158

Scientific Management in Rumania's Economy, by Petrasche Busoianu, 5 pp.  
RUMANIAN, per, Contemporarul, 24 Mar 1967, p. 8.  
JPRS 40772

Eastern Europe  
Economic (Contd)

Simplification, Expanded Authority and Increased Responsibility in Preparing the Approving Technical and Economic Documentation for Investment Projects, by M. Diamandopol, 21 pp.  
RUMANIAN, per, Finante si Credit, Vol 13, No. 2, Feb 1967, pp. 3-15.  
JPRS 40815

Make Enterprises and Products Profitable -- An Important Goal during the Present Stage, by Gh. Popescu, 16 pp.  
RUMANIAN, per, Finante si Credit, Vol 13, No. 2, Feb 1967, pp. 28-38.  
JPRS 40815

Methods for Guiding the Cultural and Educational Activities of Youth, by A. Barcanescu, 5 pp.  
RUMANIAN, per, Indrumatorul Cultural, Vol. 20, No. 3, Mar 1967, pp. 4-7.  
JPRS 40994

Light Industry in 1967, by Ioan Moldovan, 9 pp.  
RUMANIAN, per, Industria Uscara, No 1, Jan 1967, pp. 9-12.  
JPRS 41106

Product Quality, As An Objective of Enterprises in Light Industry, by Nicolae Tudorache, 5 pp.  
RUMANIAN, per, Industria Uscara, No. 2, Feb 1967, pp. 73-75.  
JPRS 41398

Increased Discipline and Full Utilization of Work Time As a Primary Task of Rumanian Railroad Trade Unions, by Alexandru Grecu, 6 pp.  
RUMANIAN, per, Lupta CFR, Vol. 23, No. 1154, 19 May 1967, pp. 1, 2.  
JPRS 41519

Reserves for Increasing the Size of Monetary Accumulation, by Dr. Iulian Vacarel, 13 pp.  
RUMANIAN, per, Lupta de Clasa, Vol 47, No. 3, Mar 1967, pp. 3-13.  
JPRS 41033

Accounting Information Systems in the Modern Economy, by Decebal Urdea, 12 pp.  
RUMANIAN, per, Lupta de Clasa, Vol. 47, No. 3, Mar 1967, pp. 14-23.  
JPRS 41033

Eastern Europe  
Economic (Contd)

Pastures and Hayfields in Rumania and Their Contribution to the Fodder Base, by Dr. Reader I. Safta and Dr. Reader Gh. Anghel, 8 pp.  
RUMANIAN, per, Probleme agricole, No. 5, May 1967, pp. 1-9.  
JPRS 41396

Mobilization of Reserves for Reducing and Eliminating Losses in the Economy, by Gh. Siclovian and Gh. Sica, 21 pp.  
RUMANIAN, per, Probleme Economice, No. 2, Feb 1967, pp. 23-39.  
JPRS 40772

Present Problems in the Development of Domestic Trade, by Mihail Levente, 18 pp.  
RUMANIAN, per, Probleme Economice, No 3, Mar 1967, pp. 18-33.  
JPRS 41220

Scientific Organisation of Production and Manpower, by C. Pintilie and P. Stejaru, 18 pp.  
RUMANIAN, per, Probleme economice, No 4, Apr 1967, pp. 3-19.  
JPRS 41243

Specific Concerns of Rumanian Economic Sociology, by Miron Constantinescu, 9 pp.  
RUMANIAN, per, Probleme economice, No 4, Apr 1967, pp. 100-108.  
JPRS 41157

Continuous Increase in Corn Production With Increased Economic Effectiveness As a Task for State Farms, by Vasile Vedeanu, 8 pp.  
RUMANIAN, per, Revista Gospodariilor Agricole de Stat, No 3, Mar 1967, pp. 1-3 and 12.  
JPRS 41102

Development of Socialist Ownership in Rumania, by I. Ravar and J. Niculescu, 12 pp.  
RUMANIAN, per, Revista de Statistica, No. 2, 1967, pp. 8-17.  
JPRS 41033

Determination of the Cost Price in Units of the Post and Telecommunications System, by Gh. Girda, 10 pp.  
RUMANIAN, per, Revista de Statistica, No 2, 1967, pp. 26-34.  
JPRS 40979

Eastern Europe  
Economic (Contd)

Achievements and Prospects of Motor, Maritime and Air Transport, by Ion Baicu, 8 pp.  
RUMANIAN, per, Revista Transporturilor, No. 1, Jan 1967, pp. 1-3.  
JPRS 40771

Inquiry in Rumania Reveals Cases of Law Violations Caused by Lax Supervision, by V. Vintu, 9 pp.  
RUMANIAN, per, Scinteia, 23 Mar 1967, pp. 1 & 2.  
JPRS 40892

Managerial Incompetence at the Medgidia Mechanical Engineering Enterprise Has Serious Economic Consequences, by Viorel Salagean, 5 pp.  
RUMANIAN, per, Scinteia, 26 Mar 1967, pp. 1 & 3.  
JPRS 40861

The Leading Role of the Party in the Implementation of the Industrialisation Program, by Gheorghe Rosu, 6 pp.  
RUMANIAN, np, Scinteia, Vol 36, No 7350, 24 May 1967, pp. 1, 3.  
JPRS 41646

The Academy of the Rumanian Socialist Republic, by I. Goliat, 52 pp.  
RUMANIAN, per, Studii, Revista de Istorie, Vol. 19, No. 6, Nov-Dec 1966, pp. 1131-1165.  
JPRS 41034

Deficiencies in Determining the Number, Structure and Optimum Utilisation of the Labor Force, by V. Boescu, L. Tintea, I. Bumba, and S. Popescu, 12 pp.  
RUMANIAN, per, Vista Economica, No. 12 (188) 24 Mar 1967, pp. 8-9.  
JPRS 41033

Working Time, Productivity and Economic Efficiency, by G. Baboasa, F. Daea and V. Boescu, 13 pp.  
RUMANIAN, np, Vista Economica, Vol 5, No 17, 28 Apr 1967, pp. 4-5.  
JPRS 41309

The East German VF/MO2 Fish Metal Unit, by P. Shuster,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 83-4.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Eastern Europe  
Economic (Contd)

Basic Directions of Technical Progress in European CEMA Member Countries, by I. Popov, 16 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No 3, Mar 1967, pp. 101-110.  
JPRS 41242

Characteristics of the Yugoslav Market in Artificial Fertilisers Discussed, by Velemir Ivanovic, 31 pp.  
SERBO-CROATIAN, per, Agrohimijs, Nos 3-4, 1967, pp. 159-178.  
JPRS 41686

Personnel Policy -- A Function of Self-Management and Business Operation, by Jovo Brekic, 32 pp.  
SERBO-CROATIAN, per, Ekonomski Pregled, No. 1-2, Jan-Feb 1967, pp. 1-29.  
JPRS 41533

Current Problems of Reserve Funds in Industrial Economic Organizations, by Marijan Korosic, 12 pp.  
SERBO-CROATIAN, per, Ekonomski Pregled, No. 1-2, Jan-Feb 1967, pp. 56-67.  
JPRS 41533

Tax Policy As a Factor in Income Distribution and Redistribution in Agriculture, by Milos Bogdanovic, 20 pp.  
SERBO-CROATIAN, per, Ekonomski Pregled, No. 1-2, Jan-Feb 1967, pp. 70-88.  
JPRS 41421

The Implementation of Credit Policy Measures in 1966 in Yugoslavia Discussed, by Milan Golijandin, 15 pp.  
SERBO-CROATIAN, per, Finansijs, Vol 22, Nos. 3-4, Mar-Apr 1967, pp. 113-124.  
JPRS 41243

Prospects and Possibilities for Free Tariff Zones in the Yugoslav Economic System, by D. Petkovic, 12 pp.  
SERBO-CROATIAN, per, Finansijs, Vol 22, Nos 3-4, Mar-Apr 1967, pp. 158-168.  
JPRS 41205

The System of Social Reserves in Yugoslavia Described, by Magdalena Polovina, 12 pp.  
SERBO-CROATIAN, per, Finansijs, Vol 22, Nos 3-4, Mar-Apr 1967, pp. 168-178.  
JPRS 41243

Eastern Europe  
Economic (Contd)

System of Taxation of the Citizens in Croatia Described, by Stjepan Kovac, 19 pp.  
SERBO-CROATIAN, per, Financije, Vol 22, Nos 3-4, Mar-Apr, pp. 193-204.  
JPRS 41243

More Concern for the Regular Execution of Investments in the Metallurgy and Machine Building Branches, by Iosif L. Ciolan, 13 pp.  
ROMANIAN, per, Finante si Credit, Vol 13, No 3, Mar 1967, pp. 14-25.  
JPRS 41336

Reasons for the Backwardness in Agriculture, by Dr. Milos Bogdanovic, 12 pp.  
SERBO-CROATIAN, per, Glasnik za poljoprivredu i sadrugarstvo, No 4, Apr 1967, pp. 5-13.  
JPRS 41645

Import and Export of Agricultural Products, by Stevan Silbiger, 8 pp.  
SERBO-CROATIAN, per, Glasnik za poljoprivredu i sadrugarstvo, No 4, Apr 1967, pp. 14-19.  
JPRS 41645

Cooperation in Agricultural Social and Private Sectors in 1967, by Milovan Ilic, 8 pp.  
SERBO-CROATIAN, per, Glasnik za poljoprivredu i sadrugarstvo, No 4, Apr 1967, pp. 44-49.  
JPRS 41645

The Allocation of and Conditions Governing Credits and Guarantees in 1967, 12 pp.  
SERBO-CROATIAN, per, Glasnik za poljoprivredu i sadrugarstvo, No 4, Apr 1967, pp. 50-57.  
JPRS 41645

The Djerdap Hydroelectric Power and Navigation System, by Panta Jakovljevic, 33 pp.  
SERBIAN, per, Iskrenja, No. 3, Mar 1967, pp. 1-17.  
JPRS 41008

Yugoslav Housing Construction in 1966, the First Year of the Economic and Housing Reform, by Smaje Rodic, 13 pp.  
SERBO-CROATIAN, per, Iskrenja, No 5, May 1967, pp. 13-20.  
JPRS 41296

Eastern Europe  
Economic (Contd)

The New Yugoslav Nitrogen Fertilizer Factory in Kutina, 7 pp.  
SERBO-CROATIAN, per, Kemija u Industriji, No. 2, Feb 1967, pp. 75-77.  
JPRS 41041

The Problems and Prospects of the "Viskoza" Viscose Fiber Factory, Loznica, by Vladimir Vuksanovic, 7 pp.  
SERBO-CROATIAN, per, Komuna, No. 3, Mar 1967, pp. 46-47.  
JPRS 41041

Economic Situation of River Communication After the Economic Reform,  
SERBO-CROATIAN, per, Medunarodni Transport, Oct 1966, pp. 36-38.  
DIA LN 178-67

Basic Propositions of the Joint Investments of Yugoslav Enterprises and on Production and Financial Cooperation Between the Yugoslav Economy and the Economies of other countries, 16p.  
SERBOCROATIAN, per, Privredni Pregled, 21 Mar 1967, pp. 7-8.  
JPRS 40,701

Yugoslav Transportation and Communications in 1966, 6 pp.  
SERBO-CROATIAN, mp, Privredni Pregled, 10 May 1967, p. 10.  
JPRS 41243

The Utilization of Production Capacities, by Industrial Groups and Sectors, in Yugoslavia, 1963-1965, by Djordje Vercelj, 20 pp.  
SERBO-CROATIAN, per, Produktivnost, Vol. 9, No. 2, Feb 1967, pp. 86-90.  
JPRS 41033

Operation of Economic Organisations in Yugoslavia in 1966 Reviewed, by Spasoje Medenica, 9 pp.  
SERBO-CROATIAN, mp, Savremena Praksa, Vol 3, No 119, 24 Apr 1967, pp. 1 and 12.  
JPRS 41214

Collaboration and Association Agreements in Yugoslavia Described, by D. Markovic, 9 pp.  
SERBO-CROATIAN, mp, Savremena Praksa, Vol 3, No 119, 24 Apr 1967, p. 4.  
JPRS 41214

Eastern Europe  
Economic (Contd)

Law On the Formation and Social Control of Prices, 12 pp.  
SERBO-CROATIAN, per, Sluzbeni List SFRJ, No 12, 15 Mar 1967, pp. 278-282.  
JPRS 40964

Instruction on the Use of Firearms, Rubber Truncheons, and Other Means of Coercion, 6 pp.  
SERBO-CROATIAN, per, Sluzbeni list SFRJ, No. 14, 29 Mar 1967, pp. 348-350.  
JPRS 40892

Agreement of the Social Insurance of Moslem Religious Functionaries, 14 pp.  
SERBO-CROATIAN, per, Sluzbeni list SFRJ, No. 14, 29 Mar 1967, pp. 351-355.  
JPRS 40892

Code of Regulations on Amendments and Supplements to the Code of Regulations on Control over Border Crossings and on Movement, Visits and Settlement in the Border Zone, 6 pp.  
SERBO-CROATIAN, np, Sluzbeni List SFRJ, No. 18, 26 Apr 1967, pp. 494-495.  
JPRS 41101

New Yugoslav Regulation on Certain Income Taxes Promulgated, 13 pp.  
SERBO-CROATIAN, per, Sluzbeni List SFRJ, No 22, 17 May 1967, pp. 654-658.  
JPRS 41697

The Business Policy and Work Results of the Yugoslav Investment Bank in 1966, 14 pp.  
SERBO-CROATIAN, per, Vesnik Jugoslovenske investicione banke, Jan 1967, pp. 1-6.  
JPRS 40873

Yugoslav Investment Fluctuations in 1966, by Milovan Kuzmanovic, 8 pp.  
SERBO-CROATIAN, per, Vesnik Jugoslovenske investicione banke, Jan 1967, pp. 12-15.  
JPRS 40873

Investment Policy in the Social Plans of the Yugoslav Socialist Republics, by Miroslav Prica, 9 pp.  
SERBO-CROATIAN, per, Vesnik Jugoslovenske Investicione Banke, Feb 1967, pp. 1-5.  
JPRS 41214

Eastern Europe  
Economic (Contd.)

Essential Innovations Contained in the Amendments and Additions to the Law on the Construction of Capital Investment Projects, 9 pp.  
SERBO-CROATIAN, per, Vesnik Jugoslovenske Investicione Banke, Feb 1967, pp. 5-7.  
JPRS 41194

Political

The Fostering of a Revolutionary Spirit in the Intelligentsia, by Hamit Beqja, 8 pp.  
ALBANIAN, per, Rruga e Partise, No 2, Feb 1967, pp. 50-56.  
JPRS 41601

Albanian Party Journal Says Revolutionary Unity To Be Achieved by Relentless Struggle Against Revisionism, by Hajro Zeneli, 9 pp.  
ALBANIAN, per, Rruga e Partise, No. 3, Mar 1967, pp. 45-52.  
JPRS 41516

The Struggle against Religious Concepts is a Continuing Ideological Struggle, 8 pp.  
ALBANIAN, per, Rruga e Partise, No. 4, Apr 1967, pp. 3-7.  
JPRS 41527

Albanian Party Journal Criticises Revisionist Distortions of the Marxist-Leninist Theory of Art, by Alfred Uci, 15 pp.  
ALBANIAN, per, Rruga e Partise, No 4, Apr 1967, pp. 44-55.  
JPRS 41363

New Regulations Announced for Setting Up Socialist Brigades For Technical Progress, by Professor Iv. Popov and Docent Iv. Iliev, 6 pp.  
BULGARIAN, np, Dushaven vestnik, 12 May 1967, pp. 2-3.  
JPRS 41325

Reincarnation of Anticomunism in Bulgaria, by Bogomil Nonev, Vladimir Naydenov, Venko Khristov, Georgi Konstantinov, Elena Nikolova-Rush, Emanuel Cholakov, Yosif Toshkov and Kosta Kyulyumov, 12 pp.  
BULGARIAN, per, Literaturen front, No. 14, 30 Mar 1967, p. 4.  
JPRS 40999

Eastern Europe  
Political (Contd)

Dogmatism and Imperialism, by Vladimir Kostov, 5 pp.  
BULGARIAN, per, Mladetz, No. 3, Mar 1967, pp. 11-14.  
JPRS 41094

The Development of Socialism Into Communism in Conformity With Natural Laws, by Yanko Serkedzhiev, 10 pp.  
BULGARIAN, per, Partien shivot, No. 5, Apr 1967, pp. 85-91.  
JPRS 41295

Ideological Subversion and the Imperialist Intelligence Service, by V. Pekov, 6 pp.  
BULGARIAN, per, Trudovo Delo, 29 Mar 1967, p. 4 & 5 Apr 1967, p. 5.  
JPRS 40999

Structural Development of the Membership Base of the Party, by Leopold Rykl, 10 pp.  
CZECH, per, Nova Mysl, Vol XII, No 10, 16 May 1967, pp. 7-9.  
JPRS 41387

Czechoslovak View of Role of Socialism in Containing Imperialist Aggression, by Vladimir Janku, 18 pp.  
CZECH, per, Nova Mysl, Vol 21, No. 11, 30 May 1967, pp. 11-15.  
JPRS 41516

Antonio Gramsci's Influence on Marxist Thinking, by Frans Marek, 12 pp.  
GERMAN, per, Weg and Ziel, No 4, Apr 1967, pp. 183-195.  
JPRS 41610

6 April 1967 Resolution of the Political Committee Concerning 1967-1968 Tasks of Party Instruction, 6 pp.  
HUNGARIAN, per, Partalet, May 1967, pp. 28-31.  
JPRS 41100

Problems of Party Economic Training, by A. Paskowski, 6 pp.  
POLISH, per, Zagadnienia i Materialy, No 7, 1-15 Apr 1967, pp. 20-23.  
JPRS 41100

Eastern Europe  
Political (Contd)

Official Regulations Issued by Rumania Governing Border-Crossing Documents, 18 pp.  
RUMANIAN, per, Boletinal Oficial al Republicii Socialiste Romania, Vol 3, No 32, 13 Apr 1967, pp. 2-7.  
JPRS 41295

Strict Observance of Law As a Protection to Socialist Property, by Augustin Alexa, 13 pp.  
RUMANIAN, per, Revista Romana de drept, No 4, Apr 1967, pp. 3-13.  
JPRS 41709

Criticism and Selfcriticism within the Party, by T. Olaru, 13 pp.  
RUMANIAN, per, Scinteia, 9 Mar 1967, p. 2.  
JPRS 40811

The Law on the Election of Yugoslav Federal Deputies, 58 pp.  
SERBO-CROATIAN, per, Sluzbeni List SFRJ, No. 8, 15 Feb 1967, pp. 197-215.  
JPRS 40811

Military

Organization and Use of the PMR-3, by I. Donchev.  
BULGARIAN, per, Armeyski Pregled, Vol 14, No 4, Apr 1967  
\*ACSI J-2881  
ID 2204030167

Laying an Anti-tank Mine Field, by K. Alanasov.  
BULGARIAN, per, Armeyski Pregled, Vol 14, No 4, Apr 1967  
\*ACSI J-2881  
ID 2204030167

News of Foreign Armies, 7 pp.  
CZECH, per, Lidova Armada Review, Issue No 1, 1967, pp 22-23; 86-88.  
DIA LN 192-67A

Military Technology, 90 pp.  
CZECH, per, Vojenska Technika, Vol VIII, No 8, 1966, pp 1-36.  
DIA LN 558-66



Eastern Europe  
Military (Contd)

Protective Jacket, by Vladimir Hak,  
CZECH, per, Vojenska Technika, No 9, 1966,  
\*ACSI J-2751  
ID 2204027067

The Artillery Officer,  
GERMAN, rpt, Der Artillerieoffizier, 1960,  
pp 7-67, 102-319.  
\*ACSI J-2749  
ID 2204026867

Technique for Mass Murder - Pineapple Bombs and  
Ball Bombs.  
GERMAN, per, Militar-Technik, No 5, 1967,  
pp 230-232.  
\*ACSI J-2950  
ID 2204031267

Radio-Range Beacon Bomb Sight,  
by M. Otto.  
GERMAN, np, National Zeitung, 16 Apr 66,  
p 6.  
\*FTD HT 23-980-67

The Plotting Aiming and Optical Instruments  
of the Artillery, by Herbert Mai,  
GERMAN, bk, Die Plan - Richt - und Optischen  
Gerate der Artillerie, 1961, 210 pp.  
\*ACSI J-2750  
ID 2204026967

Table of Contents,  
GERMAN, per, Die Reserve Magazine, Apr 1967.  
DIA 2834012367

Tank-Construction Planning - Basic Ideas on the  
Concept of Armored Vehicles.  
GERMAN, per, Soldat und Technik, No 4, 1967,  
pp 165-166.  
\*ACSI J-2994  
ID 2204032167

Planning and Preparation of the Mass Production  
of the "Leopard" Battle Tank.  
GERMAN, per, Soldat und Technik, No 4, 1967,  
p 177  
\*ACSI J-2994  
ID 2204032167

The Manufacture of the "Leopard" Battle Tank.  
GERMAN, per, Soldat und Technik, No 4, 1967,  
pp 179-180.  
\*ACSI J-2994  
ID 2204032167

Eastern Europe  
Military (Contd)

The Communication Equipment of the "Leopard"  
GERMAN, per, Soldat und Technik, No 4, 1967,  
pp 197-200 & 222  
\*ACSI J-2994  
ID 2204032167

Care, Maintenance and Repair of the "Leopard".  
GERMAN, per, Soldat und Technik, No 4, 1967,  
pp 206-214.  
\*ACSI J-2994  
ID 2204032167

Disintegrating Bullet for Blank Cartridges.  
Cartridge Magazine for Repeating Firearms.  
GERMAN, per, Soldat und Technik, No 4, Apr 1967,  
p 230.  
\*ACSI J-2885  
ID 2204030267

Training of the Heavy Mortar Platoon, 5th  
Installment,  
GERMAN, epr, Truppendienst, No 5, 1966,  
pp 460-462.  
\*ACSI J-2757  
ID 2204027167

Night-Vision and Night-Aiming Devices - 2nd  
Installment, by A. E. Felber,  
GERMAN, per, Truppendienst, Vol V, No 6, Dec  
1966, pp 509-511.  
\*ACSI J-2768  
ID 2204027267

Swedish Antitank Defense, by L. Englund,  
GERMAN, per, Truppendienst, Vol V, No 6, Dec  
1966, pp 513-516.  
\*ACSI J-2768  
ID 2204027267

Battle for Bodies of Water - 4th Installment,  
by H. Philipp,  
GERMAN, per, Truppendienst, Vol V, No 6, Dec  
1966, pp 541-543.  
\*ACSI J-2768  
ID 2204027267

FRG: Tank-Destroyer Gun, Picture and Caption,  
GERMAN, per, Truppendienst, Vol V, No 6, Dec  
1966, pp 579.  
\*ACSI J-2768  
ID 2204027267

Eastern Europe  
Military (Contd)

Defense of Armored Units from Low-Flying Aircraft, by E. Eder,  
GERMAN, per, Truppendienst, Vol VI, No 2, 1967,  
pp 100-102.  
\*ACSI J-2871  
ID 2204029567

Snipers, by H. Wichofner,  
GERMAN, per, Truppendienst, Vol VI, No 2, 1967,  
pp 109-119.  
\*ACSI J-2871  
ID 2204029567

Training Possibilities for Protection From  
Weapons of Mass Destruction, by K. Langhans,  
E. Haase,  
GERMAN, bk, Übungsmöglichkeiten zum Schutz  
vor Massenvernichtungsmitteln, 1965, 350 pp.  
P100219067-V  
FTD-HT-66-337

Kalschnikov and Dragunov Guarantee Quality in  
the Infantry Weapons.  
GERMAN, per, Volksarmee, No 9, p 8.  
\*ACSI J-2901  
ID 2204030567

Organization and Armament of French Troops in  
1970.  
GERMAN, per, Wehr Kunde, No 7, 1964, pp 384-385.  
\*ACSI J-2995  
ID 2204032267

A Few Examples of the Use of Lasers in Bal-  
listics Research, by K. Vollrath,  
GERMAN, per, Wehrtechnische Monatshefte, Vol  
LXIV, No 1, 1967, pp 18-31, No 2, 1967, pp 65-73.  
ACSI J-2306  
ID 2204017167

The German Armys' New Generation of Battle  
Tanks: The Leopard and the Battle Tank 70,  
GERMAN, per, Wehr und Wirtschaft, Vol XI,  
No 5, 1967, pp 281-287.  
\*ACSI J-2873  
ID 2204029767

Wroclaw Naval School, by Jerzy Wadowski, 11 pp.  
POLISH, per, Morze, No 6/427, June 1966,  
pp 6-7, 21 pp.  
DIA LN 179-67

Eastern Europe  
Military (Contd)

Oxygen Appliances in the Air Force,  
POLISH, per, Polish Air Force Review, Jun 1967.  
DIA LN 878 0062 67

The Cradle of the Rumanian Lathe, by  
Rusalin Muresanu,  
RUMANIAN, per, Viata Militara, No 12, 1966.  
ACSI J-2069  
ID 2204013567

Spare Parts, Tools and Instruments. 4 pp.  
CROATIAN, rpt, Military Encyclopedia of  
Yugoslavia, 1965.  
ACSI J-2596  
ID 2204023267

The Development of the Armed Forces - A Collection  
of Award-Winning Articles. 20 pp.  
CROATIAN, rpt, Vojna Biblioteka Nasi Pisci Knjiga  
Cetrdeset Druga - Sadržaj, 1965.  
Dept of Navy tr 5388 ONI 2393

Breakdown of Fields of Research, Defense Research  
Institute Chemical and Biological Warfare Agents.  
SWEDISH, per, Frore Forsvars Forskningsreferat  
Oppen Del 1/66 pp 5, 11-13.  
\*ACSI J-2900  
ID 2204030467

Geographic

Highway Handbook of Bulgaria, by I. Dimitrov,  
P. Ivanov, 80 pp.  
BULGARIAN, per, Government Publishing House  
"Medicine & Physical Culture", 1959, pp 2-83.  
DIA LN 59-67

Seaport of Budapest, by Csatar Imre, 6 pp.  
HUNGARIAN, per, Magyar Hírek, Nov 1966, pp 6.  
DIA LN 177-67

Changes of Wroclaw in the 20th Century, by  
L. Dabrowski, 6 pp.  
POLISH, per, Miasto, Vol XVII, No 7, 1966,  
pp 4-11.  
DIA LN 190-67

Wroclaw, by M. Ki, 5 pp.  
POLISH, per, Polska Ludowa, 1965, pp 421-423.  
DIA LN 189-67

Eastern Europe  
Geographic (Contd)

The Geography of the Population and Cities in Ploand, by L. Kosin'skiy, 20 pp.  
RUSSIAN, per, Zhur Geografiya, Geografiya Zaru-bezhnoy Yevropy, No 12, 1966, pp 3-13.  
DIA LN 114-67

Sava As a Navigable Object, by D. S. Jovanovic, Milorad Arbutina, 11 pp.  
SERBO-CROATIAN, per, Medunarodni Transport, Oct 1966, pp 38-42.  
DIA LN 178-67

Sociological

Idealistic Subjectivism in Aesthetics Labeled the Basis of the Revisionist Degeneration of Soviet Art, by Alfred Uci, 13 pp.  
ALBANIAN, per, Rruga e Partise, No. 3, Mar 1967, pp. 53-64.  
JPRS 41516

Ministry of Public Education Directive No 0-6 Governing the Admission of New Students to Higher Educational Institutions for the 1967-1968 School Year, 24 pp.  
BULGARIAN, np, Durshaven vestnik, No 31, 18 Apr 1967, pp. 2-7.  
JPRS 40978

Bulgarian Regulations on Allowances for Children Amended and Supplemented, by D. Popov, 17 pp.  
BULGARIAN, per, Durshaven vestnik, No. 39, 19 May 1967 pp. 1-4.  
JPRS 41428

The Cultural Revolution in Bulgaria and the First Congress of Culture, by Petur Iliev, 7 pp.  
BULGARIAN, per, Narychnik na agitatora, No. 7, Apr 1967, pp. 12-21.  
JPRS 41101

Scientific Knowledge Emphasized in Bulgaria as Effective Weapon, by Todor Stoychev, 12 pp.  
BULGARIAN, per, Partien zhivot, No 7, May 1967, pp. 64-71.  
JPRS 41709

Eastern Europe  
Sociological (Contd)

Further Improvement of the Atheistic Education of the Workers in Bulgaria, 5 pp.  
BULGARIAN, per, Politicheska prosveta, No. 4, Apr 1967, pp. 10-13.  
JPRS 41508

Separation of the Church from the Yugoslav State, Past and Present, by Oleg Mandic, 7 pp.  
CROATIAN, per, Vjesnik, 23 Mar 1967, p. 5 and 24 Mar 1967, p. 6.  
JPRS 40811

Suicide and Social Relationships, by Ladislav Rusicka, 7 pp.  
CZECH, per, Demografie, No 2, Apr 1967, pp. 108-112.  
JPRS 41317

Personal: Women and Education, 5 pp.  
CZECH, per, Lid Ova Armada Rvne, No 6, 1967, pp 86-88.  
DIA LN 310-67

Demands on the Educational System by the Scientific-Technical Revolution, by Dr. Jaroslav Havelka, 9 pp.  
CZECH, per, Nova Mysl, No. 7, 4 Apr 1967, pp. 11-13.  
JPRS 40812

Criteria of Scientific-Atheistic Training, by Jaroslav Krejci, 8 pp.  
CZECH, per, Nova Mysl, No. 8, 18 Apr 1967, pp. 17-19.  
JPRS 41058

Functioning of the New Czechoslovak Commission for Pedagogy and the Psychological Sciences, by J. Kojzar, 6 pp.  
CZECH, np, Ucitelske Noviny, No 20, 18 May 1967, p. 3.  
JPRS 41587

Worker and Employee Education at Enterprises, 8 pp.  
CZECH, per, Vestnik Ministerstva Skolstvi a Ministerstva Kultury a Informaci, No. 9, 31 Mar 1967, pp. 76-79.  
JPRS 40892

Eastern Europe  
Sociological (Contd)

Czechoslovak Ministry of Health Directives on Control of Pharmaceuticals, by Dr. Plojhar, 13 pp.  
CZECH, per, Vestnik Ministerstva Zdravotnictvi, No. 4-5, 20 Apr 1967, pp. 21-25.  
JPRS 41370

Hungarian Pedagogical Society Established, 5 pp.  
HUNGARIAN, per, Kozneveles, No 9, 12 May 1967, pp. 321-323.  
JPRS 41709

Work of Hungarian Ninth Party Congress on World View Education and Religion Discussed, by Istvan Ballo, 11 pp.  
HUNGARIAN, per, Partelet, May 1967, pp 48-57.  
JPRS 41387

Prospects for Sociological Research in Poland, by Krzysztof Ostrowski, 10 pp.  
POLISH, per, Nowe Drogi, No. 4, Apr 1967, pp. 129-136.  
JPRS 40994

Education of Teachers, by Wacław Wojtyński, 13 pp.  
POLISH, per, Nowe Drogi, No. 4, Apr 1967, pp. 137-147.  
JPRS 40994

Regulations for Theological Education, 54 pp.  
RUMANIAN, per, Biserica ortodoxa romana, No 7-8, Jul-Aug 1966, pp. 1-XXXVI.  
JPRS 41082

The School Year 1965-66 of the Rumanian Orthodox Church, 9 pp.  
RUMANIAN, per, Biserica ortodoxa romana, No 7-8, Jul-Aug 1966, pp. 777-784.  
JPRS 41082

Papal Encyclical Populorum Progressio Hailed in Rumania for Criticism of Capitalist Social Systems, by P. B. Crisan, 5 pp.  
RUMANIAN, per, Contemporarul, 21 Apr 1967, p. 8.  
JPRS 41399

The Need for Selective Investigations in Rumanian Demography, by G. Retegan, 24 pp.  
RUMANIAN, per, Economie Drept Statistica, Vol. III, 1966, pp. 133-157.  
JPRS 41428

Eastern Europe  
Sociological (Contd)

Sociological Education in Rumania, by T. Roll, 6 pp.  
RUMANIAN, per, Gazeta Invatamintului, Vol 19, No 892, 31 Mar 1967, pp. 2, 3.  
JPRS 41157

The Training and Structure of Research Teams, by Ion Golat, 13 pp.  
RUMANIAN, per, Lupta de Clasa, Vol. 47, No. 3, Mar 1967, pp. 53-64.  
JPRS 40994

Medical Assistance for the Peasantry in Need of Improvement, by Dr. L. Florea and Ecot. Iacobescu, 6 pp.  
RUMANIAN, per, Muncitorul Sanitar, No. 17, 26 Apr 1967, pp. 1, 3.  
JPRS 41157

Aspects of the Theory of Education Programs, by V. Filipescu, 10 pp.  
RUMANIAN, per, Revista de Pedagogie, No 4, Apr 1967, pp. 15-24.  
JPRS 41317

Present Problems Concerning the Teaching of Foreign Languages in Schools, by Maria Dumitrescu, 7 pp.  
RUMANIAN, per, Revista de Pedagogie, No 4, Apr 1967, pp. 96-101.  
JPRS 41317

To Ensure a Thorough Training for Pupils of Specialized Secondary Schools, by St. Sebesan, 16 pp.  
RUMANIAN, per, Revista Invatamintul Profesional si Tehnic, No. 1, Jan-Feb 1967, pp. 1-9.  
JPRS 40886

The Association of International Law and International Relations of the Rumanian Socialist Republic, by Maria Draghici, 9 pp.  
RUMANIAN, per, Revista romana de drept, No 2, Feb 1967, pp. 166-170.  
JPRS 41192

Plenary Meeting of the Central Council of the Association of Jurists, 9 pp.  
RUMANIAN, per, Revista romana de drept, No 2, Feb 1967, pp. 172-176.  
JPRS 41192

Eastern Europe  
Sociological (Contd)

The Role of Women in Rumania's Economic and Social Life, by Hareta Vainer, 11 pp.  
RUMANIAN, per, Revista de Statistica, Vol 16, No 3, Mar 1967, pp. 42-49.  
JPRS 41317

Moderate Consumption of Alcohol, by Pia Radulescu, 5 pp.  
RUMANIAN, np, Romania libera, No 7024, 19 May 1967, p. 3.  
JPRS 41399

What To Do To Make It More Difficult for Men To Desert Their Families, by Dumitru Tircob, 6 pp.  
RUMANIAN, per, Scinteia, 18 Apr 1967, p. 2.  
JPRS 41101

Theory of Guilt in Rumanian Economic Activities, by Paul Everac, 9 pp.  
RUMANIAN, np, Scinteia, 6 May 1967, pp. 1-2 & 10 May 1967, pp. 1-2.  
JPRS 41399

Cultural Activists Need Professional Qualifications, by Ion Ciuch, 5 pp.  
RUMANIAN, np, Scinteia, No 7338, 12 May 1967, p. 4.  
JPRS 41317

The Determinants and Economic Character of Expenditures of the Population, by Asim Stranjek, 10 pp.  
SERBO-CROATIAN, per, Ekonomski Pregled, No. 1-2, Jan-Feb 1967, pp. 100-106.  
JPRS 41371

Decree on the Functions, Functional Insignia, and Uniforms of the Yugoslav Police Force, 13 pp.  
SERBO-CROATIAN, np, Sluzbeni List SFRJ, No. 3, 18 Jan 1967, pp 89-92.  
JPRS 40812

Amendments and Supplements to the Law on Movement and Visits of Foreigners in Yugoslavia, 15 pp.  
SERBO-CROATIAN, np, Sluzbeni List SFRJ, No. 17, 19 Apr 1967, pp. 393-397.  
JPRS 41058

Eastern Europe  
Sociological (Contd)

The Law on the Conditions Governing the Establishment and Operation of Insurance Agencies and Reinsurance Agencies, 6 pp.  
SERBO-CROATIAN, np, Sluzbeni List SFRJ, No. 18, 26 Apr 1967, pp. 488-490.  
JPRS 41101

Instruction on the Special Customs Procedure for Items which Foreign Tourists Bring with Them, 5 pp.  
SERBO-CROATIAN, np, Sluzbeni List SFRJ, No. 18, 26 Apr 1967, pp. 525-527.  
JPRS 41101

The Law on Amendments and Supplements to the Law on Travel Documents of Yugoslav Citizens, 10 pp.  
SERBO-CROATIAN-per, Sluzbeni List SFRJ, No. 19, 5 May 1967, pp. 529-531.  
JPRS 41371

WESTERN EUROPE

Economic

The Rails Are Being Laid on the Parikkala-Onkamo Track, 5 pp.  
FINNISH, per, Rautatie Liikenne, No 9, 1966, pp 388-401.  
DIA LN 148-67B

Fuel Distribution, Fuel Distribution Unites, FRENCH, rpt, Reillumix la Garenne - Colombes, \*ACSI J-2872  
ID 2832000866

Aivers: Warehouse of the Common Market, FRENCH, per, La Revue Nautique, Jun 1966, pp 17-18.  
DIA LN 609-66

The First Luxemburgian Port Has Been Formally Opened in Mertert, the Grand-Duchy is Now Set Between Large International Waterways, 86 pp.  
FRENCH, per, Revue de la Navigation Interieure et Rhénance, Oct 1966, pp 626-630.  
DIA 66-67A

Western Europe  
Economic (Contd)

Austrian Road System In 1965 and Its Extension, FRENCH, per, Routes d'Europe, No 416, Dec 1966, pp 86, 88, 93, 94, 121, 123, 124.  
DIA LN 91-67

Statistics on Domestic Navigation on the Internal Waterways and Lakes of Italy - Annual Bulletin, 1964, 99 pp.  
ITALIAN, rpt, 1965.  
DIA LN 186-67

The Argentine Industrial Fishery and Its Possible Contribution to the Problems of Nutrition in the Western Hemisphere, by L. R. Vazques, SPANISH, rpt, Secretaria de Estado de Agricultura y Ganaderia de la Nacion, Direccion General de Pesca y Conservacion de la Fauna, 1966, 11 pp.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Facts About Swedish Railways, 33 pp.  
SWEDISH, rpt, Nov 1966, pp 1-32.  
DIA LN 92-67

Political

Lecture by Finnish Communist Advocates Spread of Marxism, by Erkki Rautee, 6 pp.  
FINNISH, np, Kansan Uutiset, 23 Apr 1967, pp. 4,5.  
JPRS 41094

First National Congress of French Revolutionary Communist Youth, by Catherine Semary, 6 pp.  
FRENCH, per, Avant-garde Jeunesse, No 5, Apr-May 1967, pp. 2-4.  
JPRS 41363

Social Composition of the French Communist Party and Its Evolution from 1959 to 1966, by Claude Harmel, 19 pp.  
FRENCH, per, Est et Ouest, Vol 19, No 378, 16-28 Feb 1967, pp. 4-12.  
JPRS 40891

Western Europe  
Political (Contd)

French Anti-Communist View on Unchanging French Communism, by Georges Albertini, 12 pp.  
FRENCH, per, Est et Ouest, Vol. 19, No. 383, 1-15 May 1967, pp. 1-7.  
JPRS 41516

French Anti-Communist Magazine Discusses Italian CP and Problems of Unity of International Communist Movement, by Rocco Astori, 7 pp.  
FRENCH, per, Est et Ouest, Vol. 19, No. 383, 1-15 May 1967, pp. 11-14.  
JPRS 41516

Communist Deputy Views Parliament As a Means to Militant Action, by Roger Chonaval, 6 pp.  
FRENCH, per, France Nouvelle, No 1127, 24 May 1967, pp. 4-5.  
JPRS 41363

The December 1966 Congress of the International CP In Milan, 6 pp.  
FRENCH, per, Programme Communiste, Vol. 11, No. 38, Apr-June 1967, pp. 66-69.  
JPRS 41516

The "Swedish Road" To Communism, by Mario Pinsanti, 6 pp.  
ITALIAN, per, Corrispondenza Socialista, No 4, Apr 1967, pp. 216-219.  
JPRS 41363

The Need for a Unitary Class Policy in the Italian Left, by Stefano Merli, 5 pp.  
ITALIAN, per, Mondo Nuovo, No. 22, 28 May 1967, p. 16.  
JPRS 41516

Accomplishments of the Karlov Vary Conference: Italian CP Comment, by Carolo Galuzzi, 8 pp.  
ITALIAN, per, Rinascita, 5 May 1967, pp. 3-4.  
JPRS 41094

The Proletarian Cultural Revolution and Its Relevance to Revolutionary Problems in Italy, by Vittorio Rieser, 25 pp.  
ITALIAN, per, Vento dell'Est, Vol 2, No 6, Apr 1967, pp. 97-125.  
JPRS 41260

Western Europe  
Political (Contd)

Rapprochement between Socialists and Communists in France, by Waldeck-Rocket, 6 pp.  
RUSSIAN, mp, Pravda, 24 Apr 1967, p. 4.  
JPRS 41024

Spanish CP Stresses Need for Effective Recruiting Policy, by Eduardo Garcia, 9 pp.  
SPANISH, per, Nuestra Bandera, No. 53, first quarter 1967, pp. 106-111.  
JPRS 41520

Military

The Operational Services, 7 pp.  
DUTCH, per, Ptt Ted, No 12, 1966, pp 714-717., 728-733, 734-743.  
DIA LN 731-66

Infantry Infrared Equipment.  
FRENCH, bk, Les Matériels Infrarouges de L'Infanterie. 19 pp.  
\*ACSI J-2937  
ID 2204020667

A. Description of Combat Ration No. 20.  
B. Description of Combat Ration No. 21.  
C. Description of Survival Food Unit.  
FRENCH, rpt, Minister des Armes -- Inspection Technique des Substances, 1965, 39 pp.  
ACSI J-2621  
ID 2832007867

Instructions for "Mosquito" Medium Range Wire-Guided Anti-Tank Missile,  
ITALIAN, rpt, Istruzione Provvisoria sul Missile Filoguidato C/C A Media Gittata Mosquito, 1966.  
\*ACSI J-2863  
ID 2850029267

Group No 2 of Portuguese Navy Schools,  
PORTUGUESE, rpt, 30 June 1967.  
DIA 5 879 0155 67

An Installation for Fragmentation Research. 26 pp.  
SWEDISH, rpt, En Onlogning for Fragmenterings-Undersokningar. 6 Feb 1967  
ACSI J-2541  
ID 289200867

Western Europe  
Military (Contd)

Fragment-Velocity Measurement With Drum Camera 26 pp.  
SWEDISH, rpt, Hastighetsmatning pa Splitter med Trunkamera. 6 Feb 1967  
ACSI J-2541  
ID 289200867

Velocity-Measurement Installation. 26 pp.  
SWEDISH, rpt, Hastighetsmatanleggnig. 6 Feb 1967  
ACSI J-2541  
ID 289200867

Enclosure for Conducting Explosions. 26 pp.  
SWEDISH, rpt, Spranggard. 6 Feb 1967  
ACSI J-2541  
ID 289200867

Geographic

The Store Baelt Bridge, by C. E. Anderson, 10 pp.  
DANISH, per, Dansk Lokomotiv Tidende, No 2, pp 12-15.  
DIA LN 292-67

The Port of Anvers by R. Vleugels, Delwaide, 15 pp.  
FRENCH, per, La Revue Nautique, Jun 1966, pp 13-16.  
DIA LN 609-66

The Finland Route, by M. Martti Niskala, 15 pp.  
FRENCH, per, Routes d-Europe, No 416, Dec 1966, pp 86, 88, 93, 94, 121, 123, 124.  
DIA LN 91-67

## AFRICA

### Economic

Recent Development and Investments in Mauritania, 7 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No. 459, 19 Apr 1967, pp. 9271-9274.  
JPRS 41373

Economic Development of the Bouake Region of the Ivory Coast, 7 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No. 459, 19 Apr 1967, pp. 9275-9278.  
JPRS 41006

Basic Economic Statistics for Mauritania, 1964, 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No. 460, 26 Apr 1967, pp. 9293-9295.  
JPRS 41113

Central Bank of Equatorial Africa and Cameroon Reports on Activities in 1965-1966, 6 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No. 462, 10 May 1967, pp. 9329-9332.  
JPRS 41225

Description and Evaluation of the Lower Mangoky River Delta Project in Madagascar, by Rene Batistini and Francois Doumenge, 24 pp.  
FRENCH, per, Bulletin de Madagascar, Vol XVII, No. 250, Mar 1967, pp. 217-240.  
JPRS 41314

Burundi Ordinary Budget for Fiscal Year 1967, 44 pp.  
FRENCH, per, Bulletin Officiel du Burundi, Vol 6, No 4a, 15 Apr 1967, pp. 197-196.  
JPRS 41609

Economic and Social Survey, by Christian Chadeaux, 6 pp.  
FRENCH, np, Le Courrier de Madagascar, 22 Mar 1967, p. 7.  
JPRS 40675

Malagasy Finance Minister Discusses Financial Structure and Policies, by Victor Niadana, 9 pp.  
FRENCH, np, Le Courrier de Madagascar, 9 May 1967, pp. 1 & 2; 10 May 1967, pp. 1 & 2; 11 May 1967, pp. 1 & 2.  
JPRS 41391

### Africa Economic (Contd)

Senegalese Minister of Planning and Development Reports on the Creation of Rural Communities, 10 pp.  
FRENCH, per, Dakar-Matin, Vol 34, No 1834, 16 May 1967, pp. 3, 7.  
JPRS 41361

Interior Minister Evaluates His Country's Senegalese Progressive Union, by Amadou Cisse Dia, 11 pp.  
FRENCH, per, Dakar-Matin, Vol 34, No 1835, 17 May 1967, p. 3.  
JPRS 41362

French Assistance Programs for the Afro-Malagasy States, by Simone Malet-Buisson, 5 pp.  
FRENCH, per, L'Economie, Vol 23, No 1038, 2 Feb 1967, pp. 20-21, 24.  
JPRS 40698

Economic and Sociological Data on Cameroon, 27 pp.  
FRENCH, per, Entreprise, supplement to #602, 23 Mar 1967.  
JPRS 41603

President Ahidjo Discusses Cameroon's Economic Prospects, by Philippe Gazier, 5 pp.  
FRENCH, per, Entreprise, No. 604, 6 Apr 1967, pp. 93-94, 99, 101.  
JPRS 40818

Congo-Kinshasa Seen As Assuming Vital Role in Revivified Organization of African Unity, by Felix Mankwe-Mukoo-Itshwi, 8 pp.  
FRENCH, per, Remarques Africaines, Vol 9, No 287, 6 Apr 1967, pp. 183-186.  
JPRS 40818

Malian Franc Defended, Illegal Trade Blamed for Devaluation, 6 pp.  
FRENCH, per, L'Essor, Vol 18, No 5126, 13 May 1967, pp. 1, 2 & 3.  
JPRS 41439

The Cotton Industry in French-Speaking Africa and Malagasy Republic, 5 pp.  
FRENCH, per, Europe France Outre-Mer, No. 446, Mar 1967, pp. 56-57.  
JPRS 41361



**Africa  
Economic (Contd)**

Scientific Research Programs and Institutes in Africa Discussed, by Nadir, 5 pp.  
FRENCH, per, Ici l'Afrique, No 3, Apr 1967, pp. 20-23.  
JPRS 41084

Review of Progress in Malagasy Five-Year Plan, 5 pp.  
FRENCH, per, Info Madagascar, 13 May 1967, pp. 1-4.  
JPRS 41373

1967 Fides Budget for the Comoro Islands, 6 pp.  
FRENCH, per, Journal Officiel des Comores, Vol. 8, No. 182, 1 Apr 1967, pp. 225-228.  
JPRS 41040

Burundi Ordinary Budget for Fiscal Year 1967, 14 pp.  
FRENCH, per, Journal Officiel de la Republique Rwandaise, Vol 6, No 3, 1 Feb 1967, pp. 22-35.  
JPRS 41373

Powers and Organization of New Guinean Ministry of Financial Control, 7 pp.  
FRENCH, per, Journal Officiel de la Republique de Guinee, Vol. 9, No. 6, 15 Mar 1967, pp. 85-88.  
JPRS 41040

Review of Italy's Post-War Economic and Political Relations With the Maghreb, 24 pp.  
FRENCH, per, Maghreb, No 20, Mar-Apr 1967, pp. 31-42.  
JPRS 41193

The Future of Viticulture in the Maghreb, 16 pp.  
FRENCH, per, Maghreb, No 20, Mar-Apr 1967, pp. 42-49.  
JPRS 41077

Three Years of Algerian Metallurgical Development, 5 pp.  
FRENCH, per, El Moudjahid, 7 and 8 Jun 1967, p. 6.  
JPRS 41366

Dahomey's Five-Year Plan, 1966-1970, 11 pp.  
FRENCH, per, Nations Nouvelles, No 10, Dec 1966, pp. 18-27.  
JPRS 40675

**Africa  
Economic (Contd)**

Mali's Economic Achievements and Prospects, by Jean-Marie Kone, 7 pp.  
FRENCH, per, Quotidien d'Information, 3 May 1967, pp. 8-14.  
JPRS 41238

Mauritian Labor Party President's Address to Labor Party Congress, 5 pp.  
FRENCH, per, Trident, No. 44, 1-7 May 1967, pp. 2 & 3.  
JPRS 41416

The Moroccan Public Transport System and Public Works, 12 pp.  
FRENCH, per, La Vie Economique, No. 2354, 28 Apr 1967, pp. 7-8.  
JPRS 41361

Developments in Fish Canning Industry, Cement, and Mining Production in 1966, 7 pp.  
FRENCH, per, La Vie Economique, No 2354, 28 Apr 1967, p. 14.  
JPRS 41373

Cameroonian UPC's History, Shortcomings, and Program Set Forth, by Robert Ekwalla, 10 pp.  
FRENCH, per, La Voix du Peuple, Vol 4, No 18, 5 May 1967, p 15; Vol. 4, No 19, 12 May 1967, p 15.  
JPRS 41225

Positive Historical Viewpoint and Nationalist Ideology in Present-Day Arab Historical Science, by Abdallah Laroui, 18 pp.  
GERMAN, per, Afrika Heute, 15 Mar 1967, pp. 1-7.  
JPRS 40829

The Zambesi River General Development Plan in Mozambique, by Jose Fernando Nunes Barata, 9 pp.  
PORTUGUESE, per, Boletim, Vol 84, Nos 5-6, May-Jun 1967, pp. 623-631.  
JPRS 41362

The Structure of the Mozambique Processing Industry, 5 pp.  
PORTUGUESE, per, Diario de Mocambique, No. 5887, 23 Apr 1967, pp. 1, 15.  
JPRS 41361

Recent Economic, Social and Political Developments in Spanish North Africa, 12 pp.  
SPANISH, per, Africa, No. 302, Feb 1967, pp. 81, 82, 84-88.  
JPRS 41040

Africa  
Political

Young Blood in the Gabonese Government, by Paulin Joachim, 7 pp.  
FRENCH, per, Bingo, No. 171, Apr 1967, pp. 24-27.  
JPRS 41361

General Survey of Liberia in 1967, 12 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, Vol 11, No 215, 7 Jun 1967, pp. 1-10.  
JPRS 41688

Draft Constitution of the Congo (Kinshasa), 25 pp.  
FRENCH, np, Le Courrier d'Afrique, 10 Apr 1967, pp. 2 & 4; 11 Apr 1967, p. 2; 12 Apr 1967, p. 2; 13 Apr 1967, pp. 2 & 4; 14 Apr 1967, p. 2.  
JPRS 41048

A Brief History of the FNLA-MPLA Struggle for Angola, 5 pp.  
FRENCH, per, Le Courrier d'Afrique, 15-16 Apr 1967, pp. 1 & 4; 17 Apr 1967, pp. 1 & 2.  
JPRS 41048

Recent Developments in French Somaliland, by Monique Sordet, 6 pp.  
FRENCH, per, Croissance des Jeunes Nations, No 66, May 1967, pp. 10-12.  
JPRS 41238

Two Schools of Thought Said To Be Competing Within Congo (Brassaville), 5 pp.  
FRENCH, np, Etudes, Vol 13, No 47, 1 Jun 1967, pp. 1 and 7.  
JPRS 41688

Congo (Brassaville) Writers Discuss OAU, by Makasu Mangani and N'Dalla-Graille, 6 pp.  
FRENCH, per, Dinanda, 28 May 1967, pp. 1 and 5.  
JPRS 41603

Dahomey: One Year of the Soglo Government, by Alexis Gnonlonfon, 6 pp.  
FRENCH, per, France Afrique, Vol 19, No 183, Mar 1967, pp. 22-26.  
JPRS 41603

Guinean President Appeals for Unity on African Youth, Denounces "Imperialism", by Pres. Sekou Toure, 8 pp.  
FRENCH, np, Horoya, 25 Apr 1967, pp. 1-3.  
JPRS 41048

Africa  
Political (Contd)

Guinean Youth Leader Denounces Portuguese Role in Africa, by Dr. Mamouna Toure, 9 pp.  
FRENCH, np, Horoya, 26 Apr 1967, pp. 1-3.  
JPRS 41048

Guinean View of the Significance of May Day, by Barry Scry, 5 pp.  
FRENCH, np, Horoya, 29 Apr 1967, pp. 1, 2.  
JPRS 41084

Editorial Reflections on the 20th Anniversary of the Guinean Democratic Party, 6 pp.  
FRENCH, np, Horoya, 14 May 1967, pp. 1 and 3.  
JPRS 41362

Message of Guinean President Sekou Toure on the 20th Anniversary of the Democratic Party of Guinea, by Sekou Toure, 11 pp.  
FRENCH, np, Horoya, 16 May 1967, pp. 1-2, 6-7.  
JPRS 41373

Malagasy Student Association Adopts Its Platform, 8 pp.  
FRENCH, per, Lumiere, Vol 33, No 1622, 21 May 1967, p. 5.  
JPRS 41361

Report On and Prospects of French Policy of Cooperation in Africa, by Robert Maille, 10 pp.  
FRENCH, per, Le Mois en Afrique, No. 16, Apr 1967, pp. 67-76.  
JPRS 40992

Political and Economic Problems and Prospects of Cameroon, 10 pp.  
FRENCH, np, Le Monde, 28-29 May 1967, p. 7; 31 May 1967, p. 7.  
JPRS 41420

Youth in French-Speaking Africa Criticizes Government Authority, by Jean-Pierre N'Diaye, 6 pp.  
FRENCH, per, Le Monde Diplomatique, Vol 14, No. 158, May 1967, p. 13.  
JPRS 41420

Algerians Mobilize Against Zionism and Imperialism, 9 pp.  
FRENCH, per, El Moudjahid, 8 Jun 1967, p. 8.  
JPRS 41636

**Africa  
Political (Contd)**

Burundi Student in France Opt's for Single Party, by Simon Sabinbana, 9 pp.  
FRENCH, per, Remarques Africaines, Vol. 9, No. 288, 20 Apr 1967, pp. 216-221.  
JPRS 41035

UNRWA Member Criticizes Decision to Merge with JNR, Become Burundi Regime's Militia, by Juvenal Madirisha, 6 pp.  
FRENCH, per, Remarques Africaines, Vol 9, No 290, 18 May 1967, pp. 272-275.  
JPRS 41373

Survey of Nationalist China's Rising Influence over That of Red Chinese in Africa, 7 pp.  
GERMAN, per, Der Spiegel, No. 17, 17 Apr 1967, pp. 126-134.  
JPRS 40818

Portuguese Official Reviews African Socialism, by Luis Filipe de Oliveira e Castro, 6 pp.  
PORTUGUESE, per, Revista de Angola, 30 Apr 1967, JPRS 41361

Israeli Penetration into Black Africa, by Mustapha Sehimi, 6 pp.  
FRENCH, per, Revolution Africaine, 3-9 Apr 1967, pp. 22-23.  
JPRS 41049

Resolutions Passed by Constituent Congress of Congo (Brassaville) Mine Workers, 10 pp.  
FRENCH, in, La Semaine, 9 Apr 1967, p. 3; 16 Apr 1967, p. 5; 23 Apr 1967, p. 5; and 30 Apr 1967, p. 5.  
JPRS 41083

A Portuguese View of the Insurgency in Mozambique, by Frederico Alves, 40 pp.  
PORTUGUESE, in, O Seculo, 12 Apr 1967, pp. 1 & 6; 13 Apr 1967, pp. 1 & 6; 14 Apr 1967, pp. 1 & 6; 15 Apr 1967, pp. 1 & 6; 16 Apr 1967, pp. 1 & 6; 17 Apr 1967, pp. 1 & 9; 18 Apr 1967, pp. 1 & 7; 19 Apr 1967, pp. 1 & 6; 20 Apr 1967, pp. 1 & 5; 21 Apr 1967, pp. 1 & 6.  
JPRS 41400

**Africa  
Military**

Data on African Air Forces, 9 pp.  
FRENCH, per, Aviation Magazine International, No. 465, 15 Apr 1967, pp. 16-17, 19.  
JPRS 41035

Congo (Kinshasa) President Publishes Study on Constitutional Base of Military Regimes, by Gen. Joseph Mobutu, 10 pp.  
FRENCH, per, Bingo, No. 169, Feb 1967, pp. 37-39, 41.  
JPRS 41373

Locations of Malagasy Government Telecommunications Centers and Stations, 12 pp.  
FRENCH, per, Journal Officiel de la Republique Malagasy, Vol. 83, No. 529, 15 Apr 1967, pp. 659-662.  
JPRS 41035

Brief History of the Lao Patriotic Front, 6 pp.  
FRENCH, per, Revue Militaire Generale, No. 1, Jan 1967, pp. 88-89 and No. 3, Mar 1967, pp. 409-411.  
JPRS 40776

Military Cartography of Spanish Africa, by Manuel Garcia-Baquero y Sainz de Vicuna, 24 pp.  
SPANISH, per, Archivos del Instituto de Estudios Africanos, Vol. 20, No. 80, July 1966, pp. 21-49.  
JPRS 41373

**Sociological**

Accounts of Labor Troubles in Casablanca, Safi, and Marrakech, Morocco, 6 pp.  
FRENCH, per, L'Avant Garde, No. 420, 20 May 1967, pp. 3, 5.  
JPRS 41391

Metaphysical Bases of Morals Among the Kirdis of Chad and Cameroon, by Ange-Raymond Antonini, 11 pp.  
FRENCH, per, Bulletins et Memoires de la Societe d'Anthropologie de Paris, Vol 9, Series II, No 4, Oct-Dec 1966, pp. 367-376.  
JPRS 41603

Audio-Visual Education in Rwanda, 5 pp.  
FRENCH, per, Carrefour d'Afrique, No. 65, Apr 1967, pp. 7-8.  
JPRS 41373

**Africa  
Sociological (Contd)**

Study on Unions, and Remarks by Union Leaders, by Henry de Decker, 21 pp.  
FRENCH, per, Congo-Afrique -- Economie, Culture, Vie Sociale, Vol 7, No 15, May 1967, pp. 226-243.  
JPRS 41416

Report on Belgian Cooperation in Congo (Kinshasa) Education, by A. T., 9 pp.  
FRENCH, np, Le Courrier d'Afrique, 23 Mar 1967, pp. 1-2; 24 Mar 1967, pp. 1,4; 25-27 Mar 1967, pp. 1, 3; 28 Mar 1967, pp. 1-2 and 29 Mar 1967, pp. 1-2.  
JPRS 41040

Congo (Kinshasa) Ambassador to Sudan, Odilon Mwenda, Interviewed in Khartoum on Refugee Problem, by L. Tshimpumpu, 5 pp.  
FRENCH, np, Le Courrier d'Afrique, 3 Apr 1967, pp. 1, 3.  
JPRS 40774

The "Juvenile Crisis" in Mali, 15 pp.  
FRENCH, np, L'Essor, 18 May 1967, pp. 1-4.  
JPRS 41314

President Keita Complains of Waywardness of Malian Youth, by President Keita, 5 pp.  
FRENCH, per, L'Essor Hebdomadaire, No 400, 28 Mar 1967, p. 8.  
JPRS 40698

Central African States Meet to Discuss Higher Education, 8 pp.  
FRENCH, np, Etamba, Vol 13, No 47, 1 Jun 1967, pp. 1, 2 and 8.  
JPRS 41688

Guinean Youth Problems Revealed, by G. M. Damantang, 7 pp.  
FRENCH, per, Horoya, 24 Mar 1967, pp. 3 & 4; 25 Mar 1967, pp. 3 & 4.  
JPRS 40774

Eighth Anniversary of Guinean Youth Movement, 5 pp.  
FRENCH, np, Horoya, 28 Mar 1967, pp. 1-3.  
JPRS 41084

Denunciation of "Youth First" Bands in Guinea, 5 pp.  
FRENCH, np, Horoya, 11 Apr 1967, pp. 1 & 2.  
JPRS 40774

**Africa  
Sociological (Contd)**

Guinean Minister of Education Visits Schools in Dubreka and Forecariah Regions, 6 pp.  
FRENCH, np, Horoya, 19 May 1967, pp. 1,2; 21-22 May 1967, pp. 1,2.  
JPRS 41420

Communist View of Situation in French Somaliland, by Robert Lambotte, 7 pp.  
FRENCH, np, L'Humanite Dimanche, No. 109, 2 Apr 1967, pp. 21 & 24.  
JPRS 40774

Objectives, Organization, and Programs of the Ecole Nationale Des Cadres Of Madagascar, by Daniel d'Huillier and Bernard Maitre, 10 pp.  
FRENCH, np, Lumiere, Vol 33, No 1,624, 4 June 1967, pp. 5 & 6.  
JPRS 41439

The Youth of the Maghreb, by Mustapha Tlili, 8 pp.  
FRENCH, per, Le Monde Diplomatique, Vol 14, No. 158, May 1967, pp. 11 & 12.  
JPRS 41439

African Prophets, 10 pp.  
FRENCH, per, Le Monde Non-Chretien, No. 79 80, July-Dec 1966, pp. 53-56, 56-62,  
JPRS 40774

The Kimbanguist Church in Congo (Kinshasa) by Jean Lasserre, 8 pp.  
FRENCH, per, Le Monde Non-Chretien, No. 79-80, Dec 1966, pp. 45-52.  
JPRS 40774

Religion and Beliefs of Bulu of Spanish Guinea Described, 11 pp.  
SPANISH, per, La Guinea Espanola, Vol. 64, No. 1609, Dec 1966, pp. 288-297.  
JPRS 41006

Africa in Search of New Gods, by J. C. Freulich, 11 pp.  
FRENCH, per, Revue de Defense Nationale, Vol 23, May 1967, pp. 822-833.  
JPRS 41238

The Sources of Family Law in the French-Speaking African States, by Pierre Lengus, 14 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 20-33.  
JPRS 40983

Africa  
Sociological (Contd)

Unity or Duality of Statutes in the Family Law of Togo, by Theodore Acoustey, 11 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 34-45.  
JPRS 40983

The Family in Dahomey, by Gregoire Gbenou, 14 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 48-63.  
JPRS 40983

The Levirate in Kassena and Lobi Country, by Telesphore Yaguibou, 11 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 64-74.  
JPRS 40983

Main Features of New Ivory Coast Family Law, by Lusenli Coulibaly, 20 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 76-95.  
JPRS 40983

The Status of the Married Woman in New Ivory Coast Family Law, by Desire Vangah, 7 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 96-101.  
JPRS 40983

Marriage in Niger, by Mahamane Dandohi, 12 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 105-116.  
JPRS 40983

Monogamy in Mali Marriage Code, by Pierre Decheix, 9 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 118-127.  
JPRS 40983

The Legal Status of Women under Malagasy Private Law, by Henri Raharijaona, 6 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 130-135.  
JPRS 40983

Family Structure and Economic Development in Tropical Africa, by Gaston Leduo, 11 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 136-146.  
JPRS 40983

Africa  
Sociological (Contd)

The Evolution of the Family in Tunisia and the Current Custody Law, by Aziz Benamor, 9 pp.  
FRENCH, per, Revue Juridique et Politique, Vol. XXI, No. 1, Jan-Mar 1967, pp. 147-154.  
JPRS 40983

MIDDLE EAST

Economic

The General Budget of the United Arab Republic, by Abdel Mun'im al-Qa'souni, 8 pp.  
ARABIC, np, al-Ahram, 26 Mar 1967, pp. 7, 9, and 27 Mar 1967, p. 7.  
JPRS 41140

Land Reclamation and Development Projects in the United Arab Republic, 14 pp.  
ARABIC, np, al-Ahram, 1 Apr 1967, pp. 1 & 4.  
JPRS 41010

Economic and Social Aspects of a State Plan, by Dr. Abdel Mun'im al-Kaisouny, 9pp.  
ARABIC, np, al-Ahram, 11 Apr 1967, pp 7-8.  
JPRS 41134

Egyptian Electric Cable Company Saves LE 116,000 in Raw Materials, 6 pp.  
ARABIC, np, Al-Ahram, 24 Apr 1967, p. 8.  
JPRS 41392

Wadi el-Jadid Project - Reclamation of the Libyan Desert in the UAR, by Dr. Mureed Yanni, 10 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, 1 Feb 1967, pp. 36-39.  
JPRS 40841

Proposed Program for Cooperative Transportation in the United Arab Republic, by Wabil Sabbagh, 6 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, 15 Feb 1967, pp. 20-23.  
JPRS 40841

Cooperatives for Marketing Fish, by Jawdat al-Sa'd Shagran, 8 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, 15 Feb 1967, pp. 38-41.  
JPRS 40841

Middle East  
Economic (Contd)

Agreement With the Democratic Republic of Germany on the Establishment of Regular Air Lines, 11 pp. ARABIC, np, al-Jaridah al-Rasmiyyah, No 299, Dec 1966, pp. 1389-94. JPRS 40676

Brain Drain of Egyptian Technicians Discussed, by Ibrahim Sa'ada, 7 pp. ARABIC, np, al-Akhbar, 8 Apr 1967, p. 3. JPRS 40833

Saudi Liberation Front Appeals to the Masses to Participate in a United National Front to Achieve The People's Rule. 6p. ARABIC, np, al-Akhbar, 16 April 1967, p4. JPRS 41,114

Consumption Planning and Its Effects on Development, by 'Abd al-Rahman Ahmad al-Shasli, 12 pp. ARABIC, per, Al-Iqtiraki, No 60, 29 Apr 1967, pp. 12-14 and 23. JPRS 41604

1.5 Million Feddans of Land Reclaimed and Cultivated, by Mohamed Sidki, 7 pp. ARABIC, np, al-Jumhuriyyah, 26 Mar 1967, pp. 3 & 10. JPRS 40824

Problems of Al-Nasr Car Manufacturing Company, by Lutfi Masif, 6 pp. ARABIC, np, al-Jumhuriyyah, 30 Mar 1967, p. 3. JPRS 40824

Irrigation Basins Changed into a Permanent Irrigation System, by Abu al-Hajja Hafes, 5 pp. ARABIC, np, al-Jumhuriyyah, 30 Mar 1967, p. 9. JPRS 40824

Amending Laws to the UAR Agrarian Reform Law, 45 pp. ARABIC, per, Al-Qawanin al-Mu'adilah lil-Islah al-Sira'i, 1967, pp. 3-21, 88-134. JPRS 41086

Indications of the Growth of Industrial Production in the United Arab Republic during the Years 1960-1965 Compared to the Year 1958, 17 pp. ARABIC, per, al-Ta'bi-ah al-'Ammah wa al-Ihsa'i, No. 32, Apr 1967, pp. 1-12. JPRS 41534

Middle East  
Economic (Contd)

The Elements of Economic Expansion, 21 pp. ARABIC, per, al-Ta'bi-ah al-'Ammah wa al-Ihsa'i, Apr 1967, pp. 55-70. JPRS 41534

Boumedienne Discusses Problems of Development in Algeria, 23 pp. ARABIC, per, At Tali'ah, Jan 1967, pp. 19-34. JPRS 40834

UAR Decree and Regulations on Workers of the General Egyptian Committee for Flight, 28 pp. ARABIC, per, al-Waga'i'a al-Misriyyah, 15 Apr 1967, pp. 2-13. JPRS 41366

The Question of Water Conservation in the United Arab Republic, GERMAN, per, Wasserwirtschaft-Wassertechnik, No 3, 1966, pp 99-104. DIA LN 612-66

Revolution on the Aircraft Industry, by Joseph Leuta, 7 pp. HEBREW, per, Bamahaneh, 28 Mar 1967, pp 14-15. JPRS 41474

Y. Shaari Discusses the Chemical Industry and Its Exports, by Daniel Bloch, 5 pp. HEBREW, np, Davar, 5 May 1967, p. 3. JPRS 41424

Impressive Conference of Immigrants from Poland, 5 pp. HEBREW, per, Zo Haderekh, 12 Apr 1967, pp. 1A4. JPRS 41089

With Whom Do They Intend to Cooperate? by Hans Lebrecht, 5 pp. HEBREW, per, Zo Haderekh, 12 Apr 1967, pp. 4 & 7. JPRS 41089

Middle East  
Political

Agreements Signed between the United Arab Republic and the Soviet Union for Land Reclamation Aid and Equipment, 13 pp.  
ARABIC, np, al-Ahram, 1 Apr 1967, pp. 3 & 4.  
JPRS 41010

President Jamel Abd Al-Nasir to Attend the Congress of Administrators, 7 pp.  
ARABIC, per, al-Ishtiraki, 18 Mar 1967, pp. 2-3.  
JPRS 41070

Socialist Democracy in the Draft of the Permanent Constitution, 14 pp.  
ARABIC, per, al-Ishtiraki, 18 Mar 1967, pp. 4-7.  
JPRS 41070

The Relationship between the Youth Organization and the Other Bodies of the Socialist Union, 5 pp.  
ARABIC, per, al-Ishtiraki, 18 Mar 1967, pp. 18-19.  
JPRS 41070

Personalities and Groups Attending General Nationalist Conference, 12 pp.  
ARABIC, np, al-Nida', 7 Jun 1967, p. 2.  
JPRS 41653

The Just Arab Cause Will Prevail, 6 pp.  
ARABIC, np, El Nida', 13 Jun 1967, pp. 1 and 4.  
JPRS 41653

Negative Aspects of the UAR Socialist Revolution Criticized, by Lutfi Al-Khuli, 5 pp.  
ARABIC, per, al-Tali'ah, Apr 1967, pp. 5-9.  
JPRS 41010

The Road of the Yemeni Revolution, by Muhammad 'Ali ash-Shahari, 94 pp.  
ARABIC, bk; Tarig al-Thawrah al-Yamaniyyah, Nov 1966, pp. 1-177.  
JPRS 41694

Document on Local Government in Algeria, 39 pp.  
ARABIC, per, At Tali'ah, Jan 1967, pp. 47-62.  
JPRS 40834

Middle East  
Political (Contd)

Imperialism and the Arab World, by Tahseen el-Souz, 8 pp.  
ARABIC, np, al-Thawrah al-Arabiyyah, 5 May 1967, pp. 3, 7.  
JPRS 41392

The Greek Communists and the Revolution, 7 pp.  
FRENCH, np, La Libre Belgique, 31 Mar- 1 Jun 1967, p. 1.  
JPRS 41653

Unaccounted Fund of E.D.A. Spent for Communist Propaganda, 6 pp.  
GREEK, np, To Vima, 10 May 1967, p. 6.  
JPRS 41715

Listings of Communists Held at Gyrocs, 37 pp.  
GREEK, np, To Vima, 14 May 1967, pp. 9-10.  
JPRS 41534

A Soviet Marxist Ideologist on Israel and Jewish Immigration, by Mordecai Oren, 5 pp.  
HEBREW, np, Al Hamishmar, 24 Mar 1967, pp. 3 & 4.  
JPRS 41049

The Mikunis-Sneh Group on International and Domestic Issues, 7 pp.  
HEBREW, np, Kol Ha'am, 27 Mar 1967, p. 2.  
JPRS 41049

Man and Class, Nation and Country These Are the Words Inscribed on Our Banner, by Yair Teaban, 16 pp.  
HEBREW, per, Kol Ha'am, 14 Apr 1967, pp. 3 and 7.  
JPRS 41293

The Message From One Generation to Another, by Moshe Sneh, 7 pp.  
HEBREW, per, Kol Ha'am, 14 Apr 1967, pp. 6 and 7.  
JPRS 41293

A Lively and Friendly Discussion, 7 pp.  
HEBREW, per, Kol Ha'am, 14 Apr 1967, pp. 6 and 7.  
JPRS 41293

The October Revolution — A Victory for Marxism-Leninism, by Moshe Sneh, 9 pp.  
HEBREW, np, Kol Ha'am, 24 Apr 1967, pp. 2 and 7.  
JPRS 41226

**Middle East**  
**Political (Contd)**

Resolution of the Central Committee of the Israeli Communist Party in View of the Fiftieth Anniversary of the Great Socialist Revolution of October, 8 pp.

HEBREW, mp, Kol Haam, 30 Apr 1967, pp. 2 & 7.  
JPRS 41392

M. Vilner Throws Sand in the Eyes, by Soker, 7 pp.

HEBREW, mp, Kol Haam, 5 May 1967, pp. 3 & 5.  
JPRS 41392

The Present Situation in Israel, by Meyer Wilner, 9 pp.

HEBREW, mp, Zo Haderekh, 3 May 1967, pp. 4, 8.  
JPRS 41474

The Jubilee Year, A Year of Spiritual Appraisal, 8 pp.

HEBREW, mp, Zo Haderekh, 24 May 1967, pp. 2 and 7.  
JPRS 41653

Soviet View of Arab Nationalism, by G. I. Mirskiy, 106pp

RUSSIAN, bk, Arabskiye Narody Prodolzhayut Bor'bu, 1965, pp 3-135.

JPRS 40,767

Resolutions of the Conference of Communist Party Representatives of Arab Countries, 7 pp.

RUSSIAN, mp, Pravda, 2 June 1967, pp. 1 & 4.  
JPRS 41524

**Military**

Syria Is Transformed Into a Huge Barrack for Wide-Scale Training of the Popular Masses, Women's Battalions, and Doubling of Training Centers in All the Provinces, 5 pp.

ARABIC, mp, al-Ba'ith, 28 May 1967, p. 5.  
JPRS 41623

Five Hundred Young Men Arrested and Accused of Evasion of Military Service, by 'Ala al-Wakeel, 5 pp.

ARABIC, mp, al-Jumhuriyyah, 28 Mar 1967, p. 3.  
JPRS 40824

**Middle East**  
**Military (Contd)**

Our Modern Arab Weapons, 16 pp.

ARABIC, per, Ikhtarna li al-Jundi, 21 Mar 1965, pp. 1-31.

JPRS 41378

Explanatory Memorandum of the Military Law No. 25 of 1966, 31 pp.

ARABIC, bk, Qanun al-Ahkam al-'Askariya, pp. 47-104.

JPRS 41525

General Horeb Discusses Science and Security in 1980, by Yadin Dudai, 6 pp.

HEBREW, per, Bamahaneh, 18 Oct 1966, pp. 8-9.  
JPRS 41140

How Were Israeli Army Symbols Created?, by Joseph Argaman, 6 pp.

HEBREW, per, Bamahaneh, 21 Mar 1967, pp. 18-19.  
JPRS 41140

Sartre's Impressions of Israel and the Israeli-Arab Dispute, 7 pp.

HEBREW, mp, Kol Haam, 21 Apr 1967, p. 2.  
JPRS 41226

The Annals of Jews in Balkan Peninsula Unravel Great Historical Mysteries, by Yaacov Shalish, 7 pp.

HEBREW, mp, Kol Haam, 24 Apr 1967, pp. 6 & 7.  
JPRS 41226

Ministry of Interior; Administration of General Selective Services; Collection of Laws; General Military Services, 96 pp.

PERSIAN, bk, Enclosure ot IR 2846048166, 1966.  
DIA LN 728-66

**Sociological**

New Villages Established in the UAR, 12 pp.

ARABIC, mp, al-Ahram, 1 Apr 1967, p. 2.  
JPRS 41010

The New Civil Status Law: First Law on the Family to be Promulgated under the Charter, 6 pp.

ARABIC, per, al-Ishtiraki, 18 Mar 1967, pp. 16-17.

JPRS 41070



Middle East  
Sociological (Contd)

Student Unions in t' United Arab Republic,  
10 pp.  
ARABIC, mp, al-Jaridah al-Rasmiyyah, No. 297  
Dec 1966, pp. 1374-78.  
JPRS 40676

Socialist Union Intervenes in Quanna District  
Wheat Problem, by Salamat Al Abasy, 7 pp.  
ARABIC, mp, al-Jumhuriyyah, 3 Apr 1967, p. 7.  
JPRS 40824

Hussein Murduwah on the Liberation Movement  
at the Third Conference for Asian and African  
Writers, 5 pp.  
ARABIC, mp, al-Nida, 29 Mar 1967, p. 3.  
JPRS 41010

Study of Number of Graduates From UAR  
Agricultural Colleges Reveals Need for More  
Specialists, 26 pp.  
ARABIC, per, al-Ta'bi'ah al-'Ammah Wa al-Ihsa'i  
Mar 1967, pp. 1-18.  
JPRS 40708

Public Health Conditions in Jordan, by  
Ziad Katbeh,  
GERMAN, rpt, Hygienische Verhaeltnisse in  
Jordanien, 1965, 116 pp.  
\*ACSI J-2809  
ID 2204027767

The Turkic People,  
RUSSIAN, rpt, Encyclopedia publ by Indiana  
Univ, edited by John R. Krueger, 1963,  
pp 228-229; 352-354; 358-359; 391.  
\*ACSI J-2861  
ID 2204028867

FAR EAST

Economic

Data on Japanese-North Korean Trade in 1966,  
by Miyahara, 18 pp.  
JAPANESE, per, Chosen Kenkyu, No. 58, Jan  
1966, pp. 41-49.  
JPRS 41359

Far East  
Economic (Contd)

Data on Items and Transition of North Korea-  
Soviet Trade, by Keizo Kawagoe, 7 pp.  
JAPANESE, per, Chosen Kenkyu, No. 59, Feb-  
Mar 1967, pp. 46-49.  
JPRS 41359

High Speed Highway Transportation and Truck  
Terminals, by Nitton Sogo Kenkyujo, 11 pp.  
JAPANESE, per, Nihon No Yoso Kakurhin, 1964,  
pp 345-353.  
DIA LN 7-67

Distribution of Bigeye Tuna in the Atlantic  
Ocean, by Hisao Sakamoto,  
JAPANESE, per, Report of Nankai Regional Fish-  
eries Research Laboratory, No 25, Mar 1967,  
pp 67-74.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

First And Second Stage Construction of Kyoba  
Highway, by Y. Skano, M. Taniai,  
JAPANESE, per, Road, 1956, pp 24-31.  
DIA LN 646-66

1966 Plans for Existing Class I National High-  
ways,  
JAPANESE, per, Road Construction, No 220, May  
1966, pp 10-13.  
DIA LN 490-66B

Provisions for Completion of Facilities on  
Existing Class II National Highways in 1966,  
by Eiichi Tomita, Kenjiro Minowa, et al,  
JAPANESE, per, Road Construction, No 220, May,  
1966, pp 14-15.  
DIA LN 490-66B

Area Development and Road Adjustment,  
JAPANESE, per, Road Construction, No 224, Sept  
1966, pp 16-17.  
DIA LN 639-66C

Reports On the Construction Work of the Okuhei  
Highway, by Eiiji Tamamura, Masao Saito,  
JAPANESE, per, Road Construction, No 224, Sept  
1966, pp 45-50.  
DIA LN 639-66C

**Far East  
Economic (Contd)**

The Basic Direction of the Economic Development in the Present Period and Technical Revolution, by Yi Chong-ok, 15 pp.

KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 8-17.  
JPRS 40988

Let Us Generate Reform in Machine Industry by Utilizing the Existing Economic Basis, by Yi Kun-mo, 16 pp.

KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 18-26.  
JPRS 40988

Establishing and Strengthening a Proletarian Political Dictatorship in Our Nation, by Kim Chae-yong, 17 pp.

KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 27-34.  
JPRS 40988

News Goals of Machine Stock-Farming Stations, by M. Oldziit, 6 pp.

MONGOLIAN, np, Unen, Sept 9, 1966, pp. 2-3.  
JPRS 41003

Discussions on the 1965 and 1967 Revenue and Expenditure Budget of the MPR, by D. Sodnom, MONGOLIAN, np, Unen, 17 Jan 1967, pp. 3.  
JPRS 41472

Present Work and Future Tasks of Public Eating Establishments, by Dz. Ganjuurjab, 6 pp.

MONGOLIAN, np, Unen, 22 Sept 1966, p. 3.  
JPRS 41003

Model By-Laws of Agricultural Artels of the Mongolian People's Republic, 20 pp.

MONGOLIAN, np, Unen, 28 Apr 1967, pp. 1, 2 & 3.  
JPRS 41302

The Draft of the By-Laws of the Agricultural Artel Union of the Mongolian People's Republic, 5 pp.

MONGOLIAN, np, Unen, 28 Apr 1967, p. 3.  
JPRS 41302

Present State of Reorganized Truck Transport Business,

JAPANESE, per, Expressway & Automobiles, Vol VIII, No 1, 1967, pp 26-32.  
DIA LN 47-67

**Far East  
Economic (Contd)**

New Road Build-up - Five Year Plan, JAPANESE, per, Expressway & Automobiles, Vol VIII, No 1, 1967, pp 40-50.  
DIA LN 47-67

Viewing Truck Transport Business, JAPANESE, per, Expressway & Automobiles, Vol VIII, No 1, 1967, pp 79-82.  
DIA LN 47-67

Technical Revolution in the Machinery Branch, by Le Thuc, 6 pp.

VIETNAMESE, per, Ky-thuat Cong-nghiep, No. 1, 1967, pp. 2, 3 & 8.  
JPRS 40857

Stepping Up Technical Revolution in Light Industry, by Kha Vang Can, 5 pp.

VIETNAMESE, per, Ky-thuat Cong-nghiep Nhe, No. 1, 1967, pp. 3 & 4.  
JPRS 40857

Science and Technology in Production, by Kha Vang Can, 7 pp.

VIETNAMESE, per, Ky-thuat Cong-nghiep, No 2, Feb 1967, pp. 3-4.  
JPRS 41691

Technical Management, 7 pp.

VIETNAMESE, per, Ky-thuat Cong-nghiep, No 3, Mar 1967, pp. 3-4.  
JPRS 41691

A Number of Ideas Concerning the Technological Revolution in the Heavy Industry Branch, by Truong Van Dau, 6 pp.

VIETNAMESE, per, Ky Thuat Cong Nghiep, No 4, Apr 1967, pp. 1-3.  
JPRS 41624

Problems Which Must Receive Attention When Looking for a Site for a "Paper Factory", by Viet Ha, 9 pp.

VIETNAMESE, per, Ky Thuat Cong Nghiep Nhe, No 4, Apr 1967, pp. 3-4.  
JPRS 41624

Opinions on Improving Agricultural Production, by Tran Duc, 5 pp.

VIETNAMESE, np, Nhan Dan, 17 & 18 Mar 1967, JPRS 41025

**Far East  
Economic (Contd)**

The Use of Fertilizer in Hung Yen Province by Tran Nguyen and Quoc Phong, 5 pp.  
VIETNAMESE, np, Nhan Dan, No. 4,726, 18 Mar 1967, p. 2.  
JPRS 40877

Democratic Merchandise Distribution in Effect in Quang Binh and Vinh Linh, by Le Dong, 7 pp.  
VIETNAMESE, np, Nhan Dan, 23 Mar 1967, p. 2.  
JPRS 40828

The Key Role of the Local Machinery Branch in the Local Economy, 6 pp.  
VIETNAMESE, np, Nhan Dan, 20 Apr 1967, p. 2.  
JPRS 41093

Carrying Out the 1967 State Plan at Dong Xuan Textile Mill, by Tran Viet and Nguyen Pho, 7 pp.  
VIETNAMESE, np, Nhan Dan, 6 May 1967, p. 2.  
JPRS 41276

Industry Serves Livestock Raising, 5 pp.  
VIETNAMESE, np, Nhan Dan, 13 May 1967, p. 2.  
JPRS 41691

Democratic Food Distribution, by Tran Nguyen, 5 pp.  
VIETNAMESE, np, Nhan Dan, 14 May 1967, p. 2.  
JPRS 41691

Raising the Yield of Múa Rice Through Planting Techniques and Observing Planting Schedules, by Luong Dinh Qua, 5 pp.  
VIETNAMESE, np, Nhan Dan, 23 May 1967, p. 2.  
JPRS 41624

Strive To Do Better Work in Production and Procurement of Fall Food Crops, by Chinh Phuong, 6 pp.  
VIETNAMESE, per, Thoi Su Phat Thong, No 23, Dec 1966, pp. 1-7.  
JPRS 40697

Step Up the Use and Production of Fertilisers in Agricultural Cooperatives, by Duong Hong Hien, 8 pp.  
VIETNAMESE, per, Thoi Su Phat Thong, No 23, Dec 1966, pp. 12-20.  
JPRS 40697

**Far East  
Political**

Haul Out the Ringleaders Against the Power Seizure, 5 pp.  
CHINESE, per, Ch'uan Wu-ti, No. 2, 5 Feb 1967, p. 3.  
JPRS 41107

Official Gazette of the Standing Committee of the National People's Congress of the Chinese People's Republic, 31 pp.  
CHINESE, per, Chung-hua Jen-min Kung-ho-kuo Ch'uan-kuo Jen-min Tai-piao Ts-hui Ch'ang-wu Wei-yuan Hui Kung-pao, No 1, 4 May 1966, pp. 3-33.  
JPRS 41385

The Thought of Mao Tse-tung Is the Soul of Proper Operation of the New Wen-hui Pao, 7 pp.  
CHINESE, per, Hung-ch'i, No. 6, 8 May 1967, pp. 45-49.  
JPRS 41390

Support Industry with the Thought of Mao Tse-tung, 9 pp.  
CHINESE, per, Hung-ch'i, No. 6, 8 May 1967, pp. 40-44.  
JPRS 41390

Circular of Central Committee of Chinese Communist Party, 7 pp.  
CHINESE, per, Hung-ch'i, No. 7, 20 May 1967, pp. 1-6.  
JPRS 41419

A Great Historic Document, 6 pp.  
CHINESE, per, Hung-ch'i, No. 7, 20 May 1967, pp. 7-11.  
JPRS 41419

Grasp the Principal Contradiction, Hold to the General Orientation of Struggle, 6 pp.  
CHINESE, per, Hung-ch'i, No. 7, 20 May 1967, pp. 12-14.  
JPRS 41419

Reference Material for "A Great, Historic Document" 7 pp.  
CHINESE, per, Hung-ch'i, No. 7, 20 May 1967, pp. 28-32.  
JPRS 41419

Great Truth, Sharp Weapon, 7 pp.  
CHINESE, per, Hung ch'i, No 9, 27 May 1967, pp 21-24.  
JPRS 41471

**Far East  
Political (Contd)**

Two Diametrically Opposed Documents, 7 pp.  
CHINESE, per, Hung ch'i, No 9, 27 May 1967,  
pp 25-28.  
JPRS 41471

Stand Firmly with the Proletarian Revolutionaries,  
by P'an Fu-sheng, 9 pp.  
CHINESE, per, Hung-ch'i, No. 6, 1967, pp. 32-  
36.  
JPRS 41390

Explosing the Plot to Kill Comrade Lo Kuang-  
Pin, by Yang L-Yen (2799/4135/6056), 13 pp.  
CHINESE, per, Hung-yen Chan-pao, No 1, 15 Apr  
1967, pp. 5-12.  
JPRS 41622

Comrade Lo Kuang-Pin Was Killed By the Enemy,  
by Hu Tu-hsing (5170/3747/5281), 6 pp.  
CHINESE, per, Hung-yen Chan-pao, No 1, 15 Apr  
1967, pp. 10-12.  
JPRS 41622

A Revolutionary Committee Uniting Cadres of  
the Hsin-Feng Processing Plant of Harbin Has  
Been Formed, 8 pp.  
CHINESE, np, Jen-min Jih-pao, 9 May 1967,  
p. 3.  
JPRS 41672

Firmly Criticize the Number One Authoritarian  
in the Party Following the Capitalist Road, by  
Ch'u Hui-ming, T'eng Wen-sheng and Chia Ch'un-  
feng, 14 pp.  
CHINESE, np, Kuang-ming Jih-pao, 26 Apr 1967,  
pp. 5-6.  
JPRS 41065

Advance, Chairman Mao's Red Guards!, 15 pp.  
CHINESE, np, Shou-tu Hung Wei-ping, Nos. 12  
and 13, 20 Apr 1967.  
JPRS 41622

An Earth-Shaking Event—Let Us Cheer for the  
Inauguration of the Peking Revolutionary  
Committee, 5 pp.  
CHINESE, np, Shou-tu Hung Wei-ping, Nos. 12  
and 13, 20 Apr 1967.  
JPRS 41622

**Far East  
Political (Contd)**

Fascist Violence By a Handful of People, by Tai  
Jui-hung (2071/3843/4767), 6 pp.  
CHINESE, np, T'ung-hsien Feng-pao, 17 Feb 1967,  
p. 3.  
JPRS 41318

Comrade Ch'en Po-ta's Speech at the Peking  
University, 1 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-  
ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966,  
Vol II, pp. 4-5.  
JPRS 40974

Premier Chou's Speech Includes the Problem of  
Carrying the Movement into the Ministries, 1 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-  
ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966,  
Vol II, p. 8.  
JPRS 40974

Comrade Ch'en Po-ta's Speech at the Academie  
Sinica, 6 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-  
ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966,  
Vol II, pp. 22-25.  
JPRS 40974

Comrade Ch'en Po-ta's Speech at the Political  
Consultative Auditorium, 5 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-  
ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966,  
Vol II, pp. 28-30.  
JPRS 40974

Comrade Kuan Feng's Speech at the Round-Table  
Conference of the College of Geology on 28 Septem-  
ber, 5 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-  
ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966,  
Vol II, pp. 31-33.  
JPRS 40974

Central Government Leaders Speak at Oath-Taking  
Meeting of Revolutionary Teachers and Students,  
4 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-  
ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966,  
Vol III, pp. 11-12.  
JPRS 40974

Far East  
Political (Contd)

Index of Sayings Concerning the Two-Line Struggle within the Party, 3 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966, Vol III, pp. 14-16.  
JPRS 40974

Chiang Ch'un-ch'iao Speaks to the Revolutionary Students of Fukien Province, 6 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966, Vol III, pp. 16-18.  
JPRS 40974

Interview with the Editorial Department of Hung-ch'i, 4 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966, Vol III, pp. 27-28.  
JPRS 40974

Abstract of T'ao Lu-chia (7118 7627 4579) Speech at Peking Telecommunication College, 3 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966, Vol III, pp. 31-32.  
JPRS 40974

Interview with Central State Council Joint Hospitality Station of Central Communist Party, 6 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966, Vol III, pp. 35-37.  
JPRS 40974

Aim at the Reactionary Line of the Capitalist Class and Fire! 7 pp.  
CHINESE, per, Wu-ch'an-chien-chi Wen-hua Ta-ko-ming Yu-kuan Ts'ai-liao Hui-pien, 28 Oct 1966, Vol III, pp. 40-43.  
JPRS 40974

Chinese Cultural Revolution Analyzed by Czech CP Organ, by Dr. Miroslav Dubovsky, 13 pp.  
CZECH, per, Zivot Strany, No. 9, Apr 1967, pp. 49-53.  
JPRS 41094

East German Couple Reports on Trip to North Vietnam, by Jeanne and Kurt Stern, 40 pp.  
DANISH, np, Land og Folk, 23/24, 26, 28 Apr and 2 May 1967, pp. 12-13, 6-7, 8-9, 6-7, respectively.  
JPRS 41155

Far East  
Political (Contd)

German Communists' Interview With Ho Chi Minh, by Kurt and Jeanne Stern, 7 pp.  
ITALIAN, per, L'Unita, 21 May 1967, p. 3.  
JPRS 41386

How Nishizawa and His ilk Distorted the China-Japan Conference? 19 pp.  
JAPANESE, np, Akahata, 14 Feb 1967, pp. 2-3.  
JPRS 41066

Japanese CP Newspaper Cautions against "Foreign" Collaborators' Attempt to Use Trade Interests against the Communist Party, 6 pp.  
JAPANESE, np, Akahata, 25 Mar 1967, p. 3.  
JPRS 41066

Akahata Points Out Distortions by Chao An-Po On Conference Between Japanese Delegation and Chairman Mao, 10 pp.  
JAPANESE, np, Akahata, 19 May 1967, p. 2.  
JPRS 41363

Followers of Great Japanese Chauvinism Wreck Japanese-Communist China Trade, by Sakai Toyokazu, 16 pp.  
JAPANESE, np, Akahata, 24 May 1967, p. 5 and 25 May 1967, p. 5.  
JPRS 41516

The Execution of Party Policies and the Revolutionary Ethos, by Kim Tong-gyu, 9 pp.  
KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 2-7.  
JPRS 40988

Need for Close Relationship between North Korean Workers' Party Leadership and the Masses Emphasized, by Yi Nung-hun, 13 pp.  
KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 42-48.  
JPRS 40988

North Korean Workers' Party Organ Stresses Need for Eradicating Flunkysm from South Korea, by Yi Chi-rin, 14 pp.  
KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 49-56.  
JPRS 40988

Party's and Government's View on Education, 7 pp.  
MONGOLIAN, np, Unen, 19 Sept 1967, p. 1.  
JPRS 41003

**Far East  
Political (Contd)**

Norwegian Communist Organ Interviews Two  
Delegates of Vietnamese Solidarity Committee  
Back From North Vietnam, 7 pp.  
NORWEGIAN, per, Friheten, No 82, 16-22 Jun  
1967, pp. 8, 9, 15.  
JPRS 41687

Pro-Chinese and Trotskyite Communists Wage World-  
Wide Ideological Dispute, by Edgar Millares Reyes,  
7 pp.  
SPANISH, per, Este & Oeste, Apr 1967, pp. 16-19.  
JPRS 41516

The Current Situation in China Viewed by a  
Spanish Communist, by Santiago Carrillo, 14 pp.  
SPANISH, per, Nuestra Bandera, No. 53, first  
quarter 1967, pp. 91-100.  
JPRS 41520

Intensification of the "Three Responsibilities"  
Movement, 6 pp.  
VIETNAMESE, np, Nhan-dan, 28 Mar 1967, pp. 1 & 4.  
JPRS 41009

Secretariat of the Party Central Committee Pub-  
lishes Resolution on Stepping Up Scientific and  
Technical Activities, 6 pp.  
VIETNAMESE, np, Nhan-dan, 14 Apr 1967, pp. 1 & 3.  
JPRS 41088

Recent Activities in Hanoi for Mobilizing the  
Masses to Implement State Plan, by Nguyen Ba Doan,  
7 pp.  
VIETNAMESE, np, Nhan-dan, 14 Apr 1967, p. 2.  
JPRS 41088

Speech of Nguyen Duy Trinh at the Congress of  
the German Unified Socialist Party, 5 pp.  
VIETNAMESE, np, Nhan Dan, 23 Apr 1967, pp. 1, 4.  
JPRS 41346

Changing Women's and Children's Welfare Task  
Into Provincial Administrative Committee Policy,  
by Nguyen Thi Hong Nhung, 5 pp.  
VIETNAMESE, per, Phu-nu Vietnam, No 186,  
16 Apr 1967, pp. 20-21.  
JPRS 41691

Education Minister Nguyen Van Huyen's Talk  
at Viet-Bao Teacher's College, 8 pp.  
VIETNAMESE, per, Ngaoi giao-vien nhan-dan,  
25 May 1967, pp. 1, 2 & 8.  
JPRS 41699

**Far East  
Political (Contd)**

The Purpose and Needs of Educating Party  
Cadres and Members in Party Policies, 7 pp.  
VIETNAMESE, per, Tuyen-huan, No 1, Apr 1967,  
pp. 1-4.  
JPRS 41673

A Few Small Experiences in Improvement of  
Village Propaganda Cadres of Hai-Phong, by  
Nguyen Liem, 5 pp.  
VIETNAMESE, per, Tuyen-huan, No 1, Apr 1967, pp.  
40-41.  
JPRS 41673

Topics To Be Firmly Grasped in the Study of  
the Fight Against America, 13 pp.  
VIETNAMESE, per, Tuyen Huan, No 4, Apr 1967,  
pp. 5-9.  
JPRS 41673

Vietnam's Certain Victory and the U.S.  
Imperialist Aggressors' Certain Defeat, 22 pp.  
VIETNAMESE, per, Tuyen Huan, No 4, Apr 1967,  
pp. 10-19.  
JPRS 41673

Topics On the Study of "The People's War and  
the People's Defense", 8 pp.  
VIETNAMESE, per, Tuyen Huan, No 4, Apr 1967,  
pp. 20-23.  
JPRS 41673

The People's War and the People's Defense, by  
Song Hao, 26 pp.  
VIETNAMESE, per, Tuyen Huan, No 4, Apr 1967,  
pp. 24-34.  
JPRS 41673

Propaganda and Educational Experiences at the  
Bach Dang Water Conservancy Project, by Tran  
Can, 11 pp.  
VIETNAMESE, per, Tuyen Huan, No 4, Apr 1967,  
pp. 35-39.  
JPRS 41673

**Far East  
Military**

Bring into Play the Glorious Tradition of the People's Armed Forces, Perform New Deeds of Merit in the Great Proletarian Cultural Revolution, by Li Tsai-han, 5 pp.  
CHINESE, per, Hung-ch'i, No. 6, 8 May 1967, pp. 37-39.  
JPRS 41390

Summary of the Forum on the Work in Literature and Art in the Armed Forces With Which Comrade Lin Pao Entrusted Comrade Chiang Ching, 14 pp.  
CHINESE, per, Hung ch'i, No 9, 27 May 1967, pp 11-20.  
JPRS 41471

North Vietnamese Interviewed on Vietnam War by East German Couple, by Jeanne and Kurt Stern, 8 pp.  
DANISH, np, Land og Folk, 9 May 1967.  
JPRS 41339

French "War Crimes" Investigator" Reports on His Trip to North Vietnam, by Georges Fischer, 7 pp.  
FRENCH, per, Democratie Nouvelle, May 1967, pp. 21-27.  
JPRS 41687

Railroad Workers in North Vietnam Under War Conditions, by Heins Groth, 10 pp.  
GERMAN, per, Fahrt Frei, Nos. 19 through 22, May and Jun 1967.  
JPRS 41607

Study on Chinese Communist Capability for Strategic Employment of Nuclear Missiles, by Itatsue Soti, 9 pp.  
JAPANESE, per, Zasshi Sunju Sha, 1966 IV pp. 1-12.  
JPRS 41649

People's Army of Korea Is a Trustworthy Protector and Defender of Revolution, by Chong Pyong-gap, 15 pp.  
KOREAN, per, Kulloja, No. 2, 25 Feb 1967, pp. 35-41.  
JPRS 40988

Training School for Vietnamese Pilots and Technicians in Soviet Union, by B. Vasil'yev, 6 pp.  
RUSSIAN, per, Nedel'ya, No 18, 23-29 Apr 1967, p. 12.  
JPRS 41093

**Far East  
Military (Contd)**

Additional Information on Using Rifles to Down American Aircrafts, by M.K, 6 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 21 & 22 Mar 1967, p. 2.  
JPRS 41025

A Day of Combat in the Life of a Political Officer, by Quang Hoa, 5 pp.  
VIETNAMESE, np, Quan-doi Nhan-dan, 16 May 1967, p. 3.  
JPRS 41721

We Are Certain to Win, by General Van Tien Dung, 7 pp.  
VIETNAMESE, np, Nhan Dan, 3 May 1966, p. 3.  
JPRS 41721

The Directions of Wartime Foodstuff Research, by Dang Gia, 8 pp.  
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa, Feb 1967, pp. 11-14.  
JPRS 41043

Medical Research in Time of War, Nguyen Duy Hoa and Vu Cong Long, 5 pp.  
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc, Feb 1967, pp. 15-18.  
JPRS 41043

Geographic

Collected Works of the 1965 Geomorphology Meeting of the Chinese Geographical Conference, 424 pp.  
CHINESE, bk, Chung-kuo Ti-li-hsueh-hui, 1965 nien Ti-mao-hsueh-shu T'ao-lun-hui Wen-chi, Dec 1965, pp. 1-111 and 1-170.  
JPRS 41115

Sociological

A Contribution to the Study of Cambodian Society, by Solange Theirry, 25 pp.  
FRENCH, per, L'Ethnographie, No 53-59, 1964, 1965, pp. 50-71.  
JPRS 40611

**Far East  
Sociological (Contd)**

Unifying Education and Training, by Jo Song-ku, 7 pp.  
KOREAN, np, Minju Choson, 19 Apr 1967, pp. 2-3.  
JPRS 41432

Develop the Experiences of the Symposium on Testing, Controlling and Standardising Drugs, by Nguyen Huu Bay, 7 pp.  
VIETNAMESE, per, Daoc Hoc, No 4, 1967, pp. 1-6.  
JPRS 41699

Early Selection of College and Professional School Students Is Important for the Struggle against America, 5pp.  
VIETNAMESE, np, Nhan Dan, 23 Mar 1967, p. 3.  
JPRS 40828

More Attention Should Be Given to the Health and Daily Life of Female Workers and Employees, by Truong Thi My, 5 pp.  
VIETNAMESE, np, Nhan-dan, 29 Mar 1967, p. 3.  
JPRS 40998

Popular Science Association Helps Fight U.S. by Dang Minh Tru, 5 pp.  
VIETNAMESE, np, Nhan-dan, 6 Apr 1967, p. 3.  
JPRS 40857

Youth of Hung Yen, 5 pp.  
VIETNAMESE, np, Nhan-dan, May 13, 1967, p. 2.  
JPRS 41691

American Bombs Cannot Drown Out the Songs of Children, by Hoang Minh Giam, 5 pp.  
VIETNAMESE, per, Van Nghe, No 213, 26 May 1967, p. 3.  
JPRS 41624

**LATIN AMERICA**

**Economic**

Greater Rio Economically Dependent on Guanabara, 10 pp.  
PORTUGUESE, np, Jornal do Brasil, 28 May 1967, p. 22.  
JPRS 41689

Services Performed by the National Agrarian Reform Institute Transportation Enterprise Described, by Vicente Cubillas, 5 pp.  
SPANISH, per, Bohemia, 31 Mar 1967, pp. 10-17.  
JPRS 41027

Prompt Recapping Saves Millions of Pesos in Foreign Exchange, by Ramon Castro Ruz, 8 pp.  
SPANISH, per, Bohemia, 28 Apr 1967, pp. 76-79.  
JPRS 41379

Congress of Farmers in Ecuador Stresses Grave Problems in Their Activities, 9 pp.  
SPANISH, per, El Comercio, 14 May 1967, pp. 1 and 13.  
JPRS 41286

Standards and Cost of Living in Guatemala, 7 pp.  
SPANISH, np, Marcha, 5 Jun 1967, pp. 21-22.  
JPRS 41689

Need for Regulation of Foreign Capital Operations Expounded, 6 pp.  
SPANISH, np, Marcha, 9 Jun 1967, p. 19.  
JPRS 41689

Future Prospects for Peruvian Oil Reported to be Unpromising, 6 pp.  
SPANISH, np, La Prensa, 7 May 1967, pp. 18-19.  
JPRS 41689

Cuban Radio Broadcasting Institute Plans for 1967, 7 pp.  
SPANISH, per, ICR: Resumen Grafico, June-Dec 1966, pp. 53-56.  
JPRS 41027

Finance, Money and Monetary Circulation Discussed in Connection with Socialism in Cuba, by Andres Vilarino, 28 pp.  
SPANISH, per, Teoria y Practica, No. 33, Feb 1967, pp. 29-45.  
JPRS 41456



Latin America  
Economic (Contd)

Rapid Development of Bulk Sugar Shipments  
Emphasized, by Rene Morales, 5 pp.  
SPANISH, per, Teoria y Practica, No. 33, Feb  
1967, pp. 59-62.  
JPRS 41456

Sponge Fishing in Cuba, by Khuan Torrente,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964,  
pp 84.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Political

Danish Communist Discusses Recent Article by Che  
Guevara in Land og Folk, by Poul Christoffersen.  
6 pp.  
DANISH, np, Land og Folk, 7 June 1967, p. 7.  
JPRS 41516

An Appeal for War Against the Imperialists, 10 pp.  
SPANISH, per, Bohemia, 28 April 1967, pp. 50-54.  
JPRS 41379

Cuban Regulations on Arbitration Established,  
6 pp.  
SPANISH, per, Gaceta Oficial, 17 Mar 1967,  
pp. 14-16.  
JPRS 41085

Against the Conservative Trend In the Guatemalan  
Labor Party, by Julio del Valle, 11 pp.  
SPANISH, per, Fundamental Critica, Feb 1967,  
pp. 130-135.  
JPRS 41363

Military

Far Minister Presides at Matanzas Military  
School Graduation, 6 pp.  
SPANISH, per, Verde Olivo, 14 May 1967, pp.  
7-9.  
JPRS 41440

Latin America  
Military (Contd)

Oriente Army Reserve Battalion Mobilizes  
into Combat Unit, by Joel Vilarino, 6 pp.  
SPANISH, per, Verde Olivo, 21 May 1967,  
pp. 16-18 and 63.  
JPRS 41440

Geographic

Institute of Geography and Statistics in  
Brazil To Make a Survey on the Brazilian  
Man Soon, by Abel Matias Neto, 5 pp.  
PORTUGUESE, per, Jornal do Brasil, 14 May 1967.  
JPRS 41689

Sociological

The Juvenile Publishing House of Cuba, by H.  
Almendros, 6 pp.  
SPANISH, per, Bohemia, 21 Apr 1967, pp. 12-13.  
JPRS 41379

The New Organic Structure of the Ministry of  
Education, by Jose Llamusa Gobel, 8 pp.  
SPANISH, per, Bohemia, 28 April 1967, pp. 70-71.  
JPRS 41379

The Life of Man in the Andes, by Emilio  
Romero, 18 pp.  
SPANISH, per, Boletin de la Sociedad  
Geografica de Lima, Vol LXXXIV, 1966, pp. 14-33.  
JPRS 41689

Radio, Television and Leisure Time, by Jose A.  
Caimas Sierra, 8 pp.  
SPANISH, per, ICR: Resumen Grafico, June-Dec  
1966, pp. 64-68.  
JPRS 41027

Havana Province First Party Secretary Addresses  
Workers of National Institute of Sports,  
Physical Education and Recreation, 5 pp.  
SPANISH, np, Granma, 13 Mar 1967, p. 3.  
JPRS 40687

## SCIENTIFIC

### Aeronautics

History of Aviation and Cosmonautics, Vol I,  
by N. D. Anoshchenko, et al,  
RUSSIAN, rpt, Academy of Sciences, USSR Soviet  
National Society of Historians of Natural Sci-  
ence and Technology, Moscow, 50 pp, 1964.  
\*NASA TT F-455

History of Aviation and Cosmonautics, Vol II,  
by N. D. Anoshchenko, et al,  
RUSSIAN, rpt, Academy of Sciences, USSR Soviet  
National Society of Historians of Natural Sci-  
ence and Technology, Moscow, 1964, pp 56-58.  
\*NASA TT F-496

History of Aviation and Cosmonautics, Vol III,  
by N. D. Anoshchenko, et al,  
RUSSIAN, rpt, Academy of Sciences, USSR, Soviet  
National Society of Historians of Natural Sci-  
ence and Technology, Moscow, 1965, 58 pp.  
\*NASA TT F-497

History of Aviation and Cosmonautics, Vol IV,  
by A. D. Anoshchenko, et al,  
RUSSIAN, rpt, Academy of Sciences, USSR Soviet  
National Society of Historians of Natural Sci-  
ence and Technology, Moscow, 1965, 66 pp.  
\*NASA TT F-498

Helicopters; Design and Construction, Vol I,  
Aerodynamics, by M. L. Mil', et al,  
RUSSIAN, bk, Izdatel'stvo Mashinostroyeniye,  
455 pp, 1966.  
\*NASA TT F-494

Use of Derivation of Thermal Combustion Theory  
for Determination of General Conditions for Flame  
Stabilization on Poorly Streamlined Bodies, by  
V. A. Mironenko.  
RUSSIAN, per, Izv. VUZ Aviatzionnaya Tekhnika,  
No 1, 1966, pp 140-145.  
\*FTD-HT-23-1066-67

Deformation of the Axes of Plane-Parallel  
Jets with their Mutual Ejection, by  
B. G. Khudenko.  
RUSSIAN, per, Iz VUZ Aviatzionnaya Tekhnika,  
No 2, 1966, pp 90-99.  
\*FTD MT 67-80

### Scientific Aeronautics (Contd)

Impingement of a Supersonic Jet on a Surface,  
by A. Ya. Sagomonyan.  
RUSSIAN, per, Vest Mosk Univ, Ser Mat i Mekh,  
No 6, 1966, pp 98-102.  
\*Dept of Navy/APL/JHU J-998

Birth of a New Aircraft. 2. Aircraft Development,  
by Pi Wang.  
CHINESE, per, Hang K'ung Chih Shih, Vol III,  
No 2, 1966, pp 12-14.  
\*FTD HT 23-1021-67

Schlieren and Hot Wire Exploration of Wakes  
in Wind-Tunnel Supersonic Flows, by J. Gaviglio,  
H. Burnage.  
FRENCH, rpt, Paper Presented at the 3rd  
AFTAE Colloquium on Applied Aerodynamics,  
8-10 November 1966 ONERA TP-417, 43p, 1966.  
NASA TT F-10,860

Rocket Flight, by Rudlof Nebel,  
GERMAN, bk, Raketenflug, 1932, pp 47.  
\*NASA TT F-11,173

A Hypersonic Wind Tunnel for Low Gas Densities  
in the Aerodynamic Experimental Station in  
Gottingen, by A. Franz Flecken, Georg Koppen-  
wallner, Walter Wuest.  
GERMAN, per, Verein Deutscher Ingenieure  
Zeitschrift, Vol 108, No 35, Dec 1966, pp 1733-  
1738.  
\*AEC

The TU-134, the Latest Soviet Turbojet Passenger  
Transport.  
HUNGARIAN, per, Repules, No 12, 1964, pp 4-5.  
\*FTD-HT-23-1023-67

An Icelandic Invention. 10 pp.  
ICELANDIC, per, Falkinn, (The Falcon), 31 Jan 1965,  
pp 22-25. P100188367  
FTD-HT-66-221

Study of a Family of Diffusers for Low  
Reynolds Number Hypersonic Wind Tunnels,  
by B. Monnerie.  
ITALIAN, per, Rach Aerospat, No 114,  
1966, pp 9-16.  
NASA TT F-10,876

Scientific  
Aeronautics (Contd)

F-104 J and Its Future, by Ar. Z,  
JAPANESE, per, Aireview, No 214, Oct 1966,  
pp 71-76.  
DIA LN 656-66

A Stabilizing Device of Helicopters With Multiple  
Blade Rotors, by R. Schon.  
POLISH, per, Technika Lotnicza, No 8, 1965,  
pp 219-220.  
\*FTD-HT-23-1076-67

A Device for Controlling a Helicopter and Re-  
gulating the Speed of Rotation of its Rotor for  
Automatic Change over to Autorotation, by  
R. Schon.  
POLISH, per, Technika Lotnicza, No 8, 1965, p 220  
\*FTD-HT-23-1076-67

Method of Dimensional Points Applied to Flat and  
Spatial Curves, by A. Golezdzinowski.  
POLISH, per, Technika Lotnicza i Astronautyczna,  
Vol 23, No 2, 1966, pp 19-23.  
\*FTD-HT-23-1069-67

Present State and Some Developmental  
Trends in Aircraft Turbine Engines,  
by J. Grzegorzewski.  
POLISH, per, Wojskowy Przegląd Lotniczy,  
No 12, 1965, pp 28-37.  
\*FTD HT 23-917-67

Agriculture

Special Features of Phased Development of  
Strawberries, by A. S. Kruzhilin,  
Z. M. Shvedskaya,  
RUSSIAN, per, Agrobiologiya, No 4(130), 1961,  
pp 525-531.  
NLL RTS 3892  
On Loan Only

Some Peculiarities of Spring Sowing in Northern  
Regions of the Republic, by A. Barayev, 12 pp.  
RUSSIAN, per, Kazakhstanskaya Pravda, 15 Apr  
1967, p.2.  
JPRS 41050

Scientific  
Agriculture (Contd)

What is Detaining the Introduction of Technically  
Established Standards in Agriculture? by V.  
Solomakhin, 14 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No. 4,  
1967, pp. 114-122.  
JPRS 41382

Economic Valuation of Agricultural Land Urged,  
by Ya. Bense, 6 pp.  
RUSSIAN, per, Sovetskaya Latvija, 23 Mar 1967,  
p. 2.  
JPRS 40991

Plans for Tractor and Agricultural Machine  
Building in 1967 Outlined, by A. Ye. Izotov,  
8 pp.  
RUSSIAN, per, Traktory i Sel'khoz mashiny, No.  
1, Jan 1967, pp. 1-2.  
JPRS 40809

Bacterial Diseases of Soybeans, by  
A. P. Klykov,  
RUSSIAN, per, Zashchita Rasteniy ot Vredi-  
telei i Boleznei, Vol VIII, No 6, 1966,  
pp 35-36.  
CRSTI AD-638-587

The Further Development of the Many-Branched  
Character of the Agricultural Economy, by Miti  
Bozo, 16 pp.  
ALBANIAN, per, Ekonomia Popullore, No. 1, Jan-  
Feb 1967, pp. 3-22.  
JPRS 40879

Government Ordinance No. 1 Dated 18 March 1967  
on the Obligatory Collection of Bread Grain,  
Meat, and Wool, 8 pp.  
ALBANIAN, per, Gazeta Zyrtare, No. 3, 25 Mar  
1967, pp. 26-33.  
JPRS 41527

Measures for the Complete Collectivisation of  
Agriculture, by Vangjo Boeka, 10 pp.  
ALBANIAN, per, Rruga e Partise, No 2, Feb 1967,  
pp. 31-39.  
JPRS 41601

Joint Congress Discusses the Executive Plan for  
Agriculture, Irrigation, and Drainage, 5 pp.  
ARABIC, per, Al-Ishraqi, No 59, 15 Apr 1967,  
p. 8.  
JPRS 41604

Scientific  
Agriculture (Contd)

Development of Agricultural Statistics in the United Arab Republic, 33 pp.  
ARABIC, per, al-Ta'bi'ah al-'Ammah wa al-Insa'a, 1967, pp. 20-45.  
JPRS 41534

UAR Ministry of Agriculture Decrees on Wheat and Black Beans, 16 pp.  
ARABIC, per, al-Waga'i'a al-Misriyyah, 3 Apr 1967, pp. 2-9.  
JPRS 41366

Document on Agricultural Reform in Algeria, 32 pp.  
ARABIC, per, At Tali'ah, Jan 1967, pp. 34-46.  
JPRS 40834

The Results of the Inventory of Forests in 1966, by Georgi Peshev, 5 pp.  
BULGARIAN, per, Gorsko stopanstvo, No. 3, Mar 1967, pp. 16-20.  
JPRS 40922

The New System of Economic Management of Agriculture in Bulgaria Discussed, in Petko Kunin, 17 pp.  
BULGARIAN, per, Novo Vreme, Vol. 43, No. 2, Feb 1967, pp. 14-26.  
JPRS 40922

Twenty-Four Climate Changes and Agricultural Production, 120 pp.  
CHINESE, monograph Erh-shih-ssu Chieh-ch'i Yu Nung-yeh Sheng-ch'an, May 1960, pp. 1-124.  
JPRS 41032

Agricultural Modernization in Southern Chad, 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No. 463, 17 May 1967, pp. 9356-9359.  
JPRS 41420

Resolutions Passed by National Agricultural Conference in Moundou, Chad, 6 pp.  
FRENCH, per, Info Tchad, 13 May 1967, pp. 1-7.  
JPRS 41420

Weather and Crop Report, February 1967, by D. Krumbiegel, 7 pp.  
GERMAN, per, Feldwirtschaft, No. 4, Apr 1967, pp. 223-224.  
JPRS 40922

Scientific  
Agriculture (Contd)

Development of the State Management of Agriculture in the System of the Foodstuffs Industry, by Arlt and Egler, 31 pp.  
GERMAN, per, Sozialistische Demokratie, No 13/67, 31 Mar 1967, pp. 1, 3-16.  
JPRS 41054

Connection Between the Redox Potential and Biological Activity in Peat-Bog Soils, by I. S. Lupinovich, I. N. Solovei, et al, RUSSIAN, per, Trudy Belorussk Nauch-Issled Inst Melior Vod Khoz, Vol VIII, 1958, pp 187-204.  
NLL RTS 3795  
On Loan Only

Scientific Progress and the Chemicalization of Agriculture in Bulgaria, by Kiril Enikov, 8 pp.  
BULGARIAN, per, Partien zhivot, No 5, Apr 1967, pp. 25-29.  
JPRS 41120

Grain Contracting, by Stanislaw Sobczyk, 12 pp.  
POLISH, per, Nowe Drogi, No. 4, Apr 1967, pp. 99-108.  
JPRS 40922

Evaluation of the Seed Supply for 1967 Spring Sowing in Poland, by Karol Gawlowski, 15 pp.  
POLISH, per, Nowe Rolnictwo, Vol 16, No. 5, 1-15 Mar 1967, pp. 1-4.  
JPRS 40995

An Attempt at Natural Isolation of Mycorrhizal Fungi From Arable Soils and Barrens in the Environs of Szczecin, by Tadeusz Dominik.  
POLISH, per, Prace Instytutu Badawczego Lesnictwa, No 227, 1961, pp 3-37.  
CFSTI TT 66-57019

60,000 Show Plots With Feed Crops, by Franciszek Kieda, 6 pp.  
POLISH, per, Przeglad Hodowlany, No 5, 1-15 Mar 1967, pp. 1-2, 6.  
JPRS 41054

Fish Offals in Pig Feeding Part 3, by Czeslaw Lewicki.  
POLISH, per, Roczniki Nauk Rolniczych, Vol 83-B-1, 1963, pp 135-143.  
CFSTI TT 66-57057

Scientific  
Agriculture (Contd)

A Problem of Great Importance: The Need for a Substantial Increase of Feed Production in State Farms, by Ioan Fetcu, 8 pp.  
RUMANIAN, per, Revista Gospodariilor Agricole, No. 2, Feb 1967, pp. 4-6.  
JPRS 40922

Agriculture in Falcon,  
SPANISH, rpt, Aspectos Geograficos del Estado Falcon, 1961, pp 159-176.  
DIA LN 589-66

Forestry, by Aurelio Vila Marco ,  
SPANISH, rpt, Aspectos Geograficos del Estado Falcon, 1961, pp 217-221.  
DIA LN 589-66

The Work of Cuban Young People in Agriculture, 6 pp.  
SPANISH, np, Juventud Rebelde, 7 Apr 1967, p. 2.  
JPRS 41379

Agricultural Advance. 55 pp.  
VIETNAMESE, per, Cai-Tien Nong-Nghiep, Vol 5, No 1, Mar 1966.  
ACSI J-2013  
ID 2204007267

Livestock Feed Is a Decisive Area in Development of Animal Husbandry, by Duong Nga, 5 pp.  
VIETNAMESE, np, Nhan Dan, 23 Mar 1967, p. 2.  
JPRS 40828

Active Preparation for 1967 Fall and Tenth-Month Crops, 6 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, 26 Apr 1967, p. 2.  
JPRS 41112

Astronomy & Astrophysics

Higher Order Scattering in the Twilight Sky Zenith, by V. G. Fesenkov,  
RUSSIAN, per, Doklady Ak Nauk SSSR, Geofizika, Vol CLXXIV, No 4, 1967, pp 833-834.  
Sci Tech Info Facility  
ST-AA-AI-100631

Scientific  
Astronomy & Astrophysics (Contd)

Photometric Effect of the Non-Point Character of Meteors, by V. A. Smirnov,  
RUSSIAN, per, Informatsionnyy Byulleten Materialy Mezhdunarodnogo Geofizicheskogo Goda, No 6, 1964, pp 16-19.  
NASA TT F-10,966

Determination of the Masses and Densities of Meteoric Bodies by Photographic Observations, by Ye. V. Sandakova, et al,  
RUSSIAN, per, Informatsionnyy Byulleten Materialy Mezhdunarodnogo Geofizicheskogo Goda, No 6, 1964, pp 20-24.  
NASA TT F-10,967

Orbits of Meteor Bodies From Photographic Observations 1957-1958, by V. I. Dem'yanenko, et al,  
RUSSIAN, rpt, Informatsionnyy Byulleten Materialy Mezhdunarodnogo Geofizicheskogo Goda, No 6, 1964, pp 32-34.  
NASA TT F-10,969

Determination of the Radiants, Altitudes and Velocities of Meteors Observed in Kiev in 1959, by Yev. N. Krivutsa, et al,  
RUSSIAN, per, Informatsionnyy Byulleten Materialy Mezhdunarodnogo Geofizicheskogo Goda, No 6, 1964, pp 32-35.  
NASA TT F-10,968

Course in Astrophysics and Stellar Astronomy, Vol II, by A. A. Mikhaylov,  
RUSSIAN, bk, Kurs Astrofiziki i Zvezdoy Astronomii. Tom Vtoroy, 1962, 688 pp.  
\*CFSTI NASA TT F-506

Theory of Plutonian Motion. Part I. Plutonian Perturbations of the First Order With Respect to Mass Perturbations, by Sh. G. Sharaf.  
RUSSIAN, per, Trudy Inst Teoret Astron, Vol IV, 1955, 131 pp.  
\*NASA TT F-490

Scientific  
Atmospheric Sciences

Bases of the Synoptic Method of Seasonal Weather Forecasting, by S. T. Pagava, N. A. Aristov, RUSSIAN, bk, Gidrometeorologicheskoye, 1966, pp 2-364.  
DIA LN 157-67

New Methods and Problems of Short-Range Weather Forecasting, by M. I. Judin, RUSSIAN, bk, Gidrometeoizdat Leningrad, 1963, 411 pp.  
NLL 9022.55 (F 127)

Handbook of Short-range Weather Forecasting, Vol 2, RUSSIAN, bk, Glav. Upravl. Gidromet. Sluzby Pri Sovet. Ministr. SSSR Gidromet Izdat. Leningrad, 1965, 489 pp.  
NLL 9022.55 (F 168)

Handbook of Short-Range Weather Forecasting, Part 1, Chapter I, Theoretical Bases of Analysis and Prognosis of Atmospheric Situations, RUSSIAN, bk, GUGMS. Tsentr. Inst. Prog., 1964, 2nd Edition.  
NLL 9022.551 (441 M)

Sound in Nature and the Acoustical Climate by V. I. Arabadzhi. RUSSIAN, per, Priroda, No 11, 1965, pp 41-49.  
\*FTD MT 66-174

Critical Monitoring of Air Humidity Data, by I. A. Berlin and L. F. Shkolyar, 8 pp. RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatorii im. A. I. Vovaykova. Metody Meteorologicheskikh Nablyudeniy i Obrabotki, Issue 194, 1966, pp. 16-21.  
JPRS 41615

Experimental Research on Turbulence in the Ground Surface Layer, by L. V. Dubrovin, 13 pp. RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatorii im. A. I. Vovaykova. Metody Meteorologicheskikh Nablyudeniy i Obrabotki, Issue 194, 1966, pp. 37-46.  
JPRS 41615

Scientific  
Atmospheric Science (Contd)

Electronic Graphing Device for Automatic Processing of Recorded Meteorological Information, by Yu. A. Kurpakov, 13 pp. RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatorii im. A. I. Vovaykova. Metody Meteorologicheskikh Nablyudeniy i Obrabotki, Issue 194, 1966, pp. 92-101.  
JPRS 41615

Interlinking Atmospheric Processes and Solar Activity, by Ye. V. Vorob'yeva, 17 pp. RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatorii imeni A. I. Vovaykova: Voprosy obshchey i sinopticheskoy klimatologii, Issue 198, 1966, pp. 30-42.  
JPRS 41405

The Possible Role of Cosmic Ray Particles in Solar-Tropospheric Relations, by B. I. Sazonov, 12 pp. RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatorii imeni A. I. Vovaykova: Voprosy obshchey i sinopticheskoy klimatologii, Issue 198, 1966, pp. 89-106.  
JPRS 41405

Explanation of the Causes of Non-Correspondences of Sferics Centers and Weather Conditions, by N. I. Leushin, RUSSIAN, per, Trudy Leningr. Glavnaya Geofiz. Observatoriya, No 157, 1964, pp 76-84.  
PI00183767  
AFCRL T-R-573

Ground Measurements of the Angular Distribution and Spectral Composition of Diffuse Sky Radiation, by V. I. Kushpil; RUSSIAN, per, Trudy Leningr Glavnaya Geofiz. Observatoriya, No 170, 1965, pp 156-166.  
PK00k83467  
AFCRL T-R-609

Experimental Calculation of the Recurrence of Temperature and Wind Velocity Combinations in the Lower 100-M Layer of the Atmosphere, by T. F. Solokha, RUSSIAN, per, Trudy Nauchno-Issled Inst Aero-klimatologii, No 37, 1966, pp 62-82.  
NASA TT F-472

Scientific  
Atmospheric Science (Contd)

Characteristics of Frontal Clouds Susceptible to Modification of Natural Precipitation, by I. N. Ponomarenko, A. M. Koshenko, RUSSIAN, per, Trudy Ukrainskiy Nauchno-Issled Gidrometeorologicheskoy Inst, No 87, 1965, pp 79-87. P100183067  
AFCRL T-R-526

Concerning the Origin of the Thin, Elevated, Nocturnal Fog Layer, by L. Z. Prokh, L. M. Roey, RUSSIAN, per, Trudy Ukrainskiy Nauchno-Issled Gidrometeorologicheskoy Inst, No 48, 1965, pp 96-100. P100183167  
AFCRL T-R-563

Research on Microphysical Mechanism of Rain from Warm Clouds, by Chou Hsiu-chi. 112pp. CHINESE, mono, Nuan-yun Chiang-shui Wei-wu-li Chi-Chih Ti Yen-chiu, August 1964, pp 1-vii and 1-105.  
JPRS 40,617

Measurement of the Secondary Gamma Spectrum From 0.2 to 2 GeV in the Upper Atmosphere, by D. Koehn, K. Pinkau, G. Wiberenz, 18 pp. GERMAN, per, Zeitschrift fur Physik, Vol 193, 1966, pp 443-458. P911191267  
AEC NP Tr-1521

First Mushroom Cloud in Alamogordo, by Wajin Ishimaru, 5 pp. JAPANESE, per, Mainichi Shinbun, 17 Jul 1966.  
AEC Tr 6827

Observation of Atmospheric Diffusion at Tokai-Mura, by Yukio NAKAGAWA, 8 pp. JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 1, 1959, pp 332-334.  
AEC ORNL Tr-1407

Study of Removal of Iodine From Atmospheric Pressure, by Tetsuo MAKIYAMA, Yukinori NISHITAKA, Tetsuo SHIRAYAMA, Osamu KAMAGUCHI, 10 pp. JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 7, 1965, pp 563-569. P911224767  
AEC NP Tr-1537

Application of the Universal Computer UMC-1 to Forecasting of Sets of Hydrological Phenomena, by Karol Krajewski, POLISH, per, Przegląd Geofizyczny, Vol VII(XV), No 2, 1963, pp 85-94.  
CFSTI TT 65-50395

Scientific  
Behavioral & Social Sciences

The Documentation of Documentation, by H. G. Buntrock, 10 pp. RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 27-29.  
FTD TT 65-1882

Chapter One: The Methods of Psychophysiological Analysis of Work Processes, by G. M. Zarakovskiy, 9 pp. RUSSIAN, bk, Psikhofiziologicheskoy Analiz Trudovoy Devatel'nosti, 1966, pp. 5-16.  
JPRS 41128

Morphological Analysis of the Mechanically Translated Georgian Language, by L. Thamarashvili. 12 pp. RUSSIAN, per, Trudy AN GRUZSSR. Instituta Elektroniki, Avtomatiki i Telemekhaniki, No 4, 1963, pp 11-18. P100200967  
FTD-HT-66-446

Standard Frequency Spectra for Chinese Language by Ta-Yu Ma, Chia-Lu Chang. CHINESE, per, Sheng Hsueh Hsueh Pao, Vol II, No 4, 1965, pp 217.  
\*FTD HT 23-1004-67

Problem of an Analog Memory in a Linear Interpolator by M. Preucil. CZECH, per, Slaboprouty Obzor, Vol XXVII, No 5, 1966, pp 160-164.  
\*FTD HT 23-846-67

On the Structural Characteristics of Firm Word Combinations in the Form of "Noun + Verb (Adjective)", by Chang Sok-hun, 11 pp. KOREAN, per, Chun Yonku, No 1, 28 Feb 1967, pp. 7-13.  
JPRS 41142

Automation and Cybernetics in the Modern Army by A. Iwasziewicz, M. Stolarski, et al. POLISH, bk, Automatyka i Cyvernetyka We Wspolczesnej Armii, 1965, pp 1-113; 276-344;  
\*FTD HT 23-896-67

Scientific  
Biological & Medical Science

Studies on the Extraction of Red Kober Color by Organic Solvents for Estrogen Determination in Urine, by G. Ittrich.  
RUSSIAN, per, Acta Endocr (Copenhagen), Vol 35, 1960, pp 34-48.  
HEW NIH 6-12-67

The Toxicological Characteristic of Hydrazine, by N. K. Kulagina. 21 pp.  
RUSSIAN, per, AMN SSSR. Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv, No 4, 1962, pp 65-81. P100187967  
FTD-HT-66-306

Antarctic Krill, by R. N. Burukovskiy.  
RUSSIAN, bk, Antarkticheskiy Krill, 1965, pp 1-92.  
\*JPRS/16016

Myoetins B<sub>1</sub>, B<sub>2</sub>, and C: New Antibiotics of the Rhodomycin Group, by G. Z. Iakubov.  
RUSSIAN, per, Antibiotiki, Vol 10, No 9, 1965, pp 771-776.  
HEW NIH 6-35-67

Electronmicroscopic Study of Chorioallantoic Membrane in Chick Embryo, by E. I. Stalinskiy, V. F. Kondalenko, 9 pp.  
RUSSIAN, per, Arkhiv Anatomii, Gistologii i Embriologii, Vol 44, No 4, 1963, pp 44-47.  
AEC ANL Tr-364

Morphology of the Interphase Nucleus, by S. I. Shobellkunov. 20 pp.  
RUSSIAN, per, Arkhiv Anatomii, Gistologii i Embriologii, Vol 47, No 7, 1964, pp. 6-21.  
JPRS 41675

Histochemical Methods in Electron Microscopy, by L. Z. Pevzner, 22 pp.  
RUSSIAN, per, Arkhiv Anatomii, Gistologii i Embriologii, Vol 48, No 4, Apr 1965, pp. 91-106.  
JPRS 41305

Some of the Problems Related to Somatic Cyto-genesis, by S. I. Shobellkunov, 33 pp.  
RUSSIAN, per, Arkhiv Anatomii, Gistologii i Embriologii, Vol 44, No 5, 1963, pp. 3-25.  
JPRS 41369

Scientific  
Biological & Medical Science (Contd)

Electron Microscopic Study of the Cerebral Cortex of Man and Experimental Animals in Convulsive States, by V. S. Petrov, 14 pp.  
RUSSIAN, per, Arkhiv Patologii, Vol 26, No 1, 1964, pp. 29-39.  
JPRS 41692

Propagation of Ultrasonic Oscillations Which Cause Aural Sensations Through the Skull, by B. M. Sagalovich.  
RUSSIAN, per, Biofizika, Vol 9, No 4, 1964, pp 477-483.  
\*ACSI J-2879  
ID 2204029967

The Cholinolytic Effect of Camphor, by A. S. Saratikov, V. K. Gorshkova. 8 pp.  
RUSSIAN, per, Byulleten' Eksperimental'noy Biologii i Meditsiny, Vol 61, No 4, pp 66-70.  
ACSI J-2569  
ID 2204021667

More on the Gray California Whale, by B. A. Zenkovich,  
RUSSIAN, per, Bulletin of Far Eastern Branch of Academy of Sciences of USSR, No 23, 1937.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Fishing Industry and the Age Limit Among Fishes, by F. Baranov,  
RUSSIAN, per, Byulleten Rybnogo Khoz, No 9, 1925, pp 26-27.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Phylogenetic Relations Between the Genera Palaeogadus and Merluccius, P. G. Danil'chenko,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol LVIII, NO 4, 1947, pp 659-662.  
Dept of Interior  
Fish and Wildlife Service  
BGF, Bureau of Foreign Fisheries

Nucleolar Complex of Oocytes in Teleost Fishes During the Period Preceding Meiotic Division, by O. P. Sakun,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVII, No 3, 1961, pp 749-751.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries



Scientific  
Biological & Medical Sciences (Contd)

Polymerization and Copolymerization of Tetracyanoethylene Under the Effect of Polymers With a Conjugated System by A. A. Berlin, N. G. Matveyeva, 8 pp. RUSSIAN, per, Dokl AN SSSR, Vol CLXVII, No 1, 1966, pp 91-94. PI00171767  
FTD HT 66-729

Decomposition of Nicotine-<sup>14</sup>C in Connection With Protein Biosynthesis, by G. S. Il'in, 9 pp. RUSSIAN, per, Dokl Akad Nauk SSSR, Vol 169, 1966, pp 232-234.  
AEC UCRL Tr-1331

The Progressively Increasing Antiacarid Immunity of Dogs to Demodex, by V. A. Sokolovsky, RUSSIAN, per, Dokl na Percoli Vses Konfer Veter Rabot, 1954, pp 131-133.  
NLL RTS 3696  
On Loan Only

A New Species of Fish Leech Piscicola Fadejewi and Certain Suppositions as to the Origin of this Species, by V. M. Epshtein, RUSSIAN, per, Dopovidi Ak Nauk UkrSR, No 12, 1961, pp 1644-1648.  
NLL RTS 3711  
On Loan Only

The Use of Trichlorethylene (narcogen) for Anaesthesia and Analgesia, by E. P. Svadzhyan, RUSSIAN, per, Eksp. Khir. Anest., Vol VIII, Jan-Feb 1963, pp 60-65.  
NLL RTS 3804  
On Loan Only

The Theoretical Basis of Instruction of Diagnostic Systems, by M. L. Bykhovskiy, RUSSIAN, per, Eksp. Khir. Anest., Vol VIII, Jan-Feb 1963, pp 60-65.  
NLL RTS 3804  
On Loan Only

Some Electrophysiological Studies on the Retina, by A. L. Rymov. RUSSIAN, bk, Elektrofiziologicheskie Issledovaniya Retiny, 1966, Dept of Navy 5420/222 No 1187

Scientific  
Biological & Medical Sciences (Contd)

Use of Ultrasound for Producing Tinctures from Alkaloid and Glucoside Plant Material, by G. A. Vaisman, et al, RUSSIAN, per, Farm Zhurnal, Vol XVIII, No 4, 1963, pp 61-65.  
NLL RTS 3898  
On Loan Only

Preparation of Infusions from Alkaloid-Containing Medicinal Plant Material Under the Action of Ultrasound, by G. P. Pivnenko, O. M. Sotnikova, RUSSIAN, per, Farm Zhurnal, Vol XX, No 1, 1965, pp 39-42.  
NLL RTS 3903  
On Loan Only

Prolonged Stay of Man in a Gas Medium Containing an Increased Amount of CO<sub>2</sub>, by A. G. Kuznetsov, et al. RUSSIAN, per, Fiziologicheskii Zhurnal SSSR, Vol 52, No 12, 1966, pp 1460-1462.  
\*FTD-HT-23-1027-67

Mountain Sickness, by A. L. Chizhevskiy, 7 pp. RUSSIAN, per, Fizkul'tura i sport, No. 4, April 1967, pp. 27-29.  
JPRS 41402

Secrets of the Brain, by A. Obysov, 8 pp. RUSSIAN, per, Fizkul'tura i sport, No. 4, Apr 1967, pp. 29-31.  
JPRS 41402

Ratio of the Weight and Linear Dimensions in Some Representatives of Fresh-Water Benthos, by I. P. Arabina, S. I. Gavrilov, RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol III, No 2, 1967, pp 71-73.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

The Use of Ionization Methods in Determination of Atmospheric Impurities, by M. T. Dmitriyev, N. A. Kitrosskiy. 8 pp. RUSSIAN, per, Gigiyena i Sanitariya, Vol 31, No 7, 1966, pp 54-59.  
Dept of Navy tr 5334 ONI 2377

Scientific  
Biological & Medical Sciences (Contd)

Effect of Industrial Noise in Winding and Weaving Factories on the Arterial Pressure in the Operators of the Machines, by A. I. Andrukovich,  
RUSSIAN, per, Gigiyena Truda i Professional'nyye Zabolevaniya, Vol IX, No 12, 1965, pp 39-42.  
\*ACSI J-2581  
ID 2204022667

The Sense Organs of the Lateral Line System and Their Significance in the Behavior of Fishes, by N. N. Disler,  
RUSSIAN, bk, Inst of Animal Morphology, A. N. Severtsov, Academy of Sciences, USSR, Chap IV, 1960, pp 264-298.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Characteristics of Ion Exchangers and Ion Exchange Membranes, by K. M. Saldadze, A. V. Pashkov and V. S. Litov, 54 pp.  
RUSSIAN, bk, Ionobmennyye Vysokomolekulyarnyye Soyedineniya, 1960, pp. 107-157.  
JPRS 40869

Bionics Research, 130 pp.  
RUSSIAN, bk, Issledovaniya po Bionike Respublikanskiy Makhvedomstvennyy Sbornik, 1965, 115 pp.  
FTD RT 66-601

List of Marine Algae of Southern Sakhalin and the Southern Kurile Islands, by Z. D. Zinova,  
RUSSIAN, per, Issledovaniya Dal'nevostochnykh Morey SSSR, No 6, 1959, pp 146-161.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Investigations of the Work of Self-Regulated Respiratory Valves, by L. I. Nemerovskiy.  
RUSSIAN, per, Issledovaniye Raboty Samodeystvuyushchikh Dykhatel'nykh Klapanov, No 9, 1965, pp 13-19.  
\*FTD MT 67-65

The Connection Between the Radioprotective and Anti-tumour Properties of Inhibitors of Radical Processes, by E. B. Burlakova, V. D. Gaintseva, et al,  
RUSSIAN, per, Izv Ak Nauk SSSR, Seriya Biol, No 4, 1966, pp 511-516.  
NLL RTS 3890  
On Loan Only

Scientific  
Biological & Medical Sciences (Contd)

Annual Convention of the Departments of Biochemistry, Biophysics and Chemistry of Physiologically Active Compounds of the Academy of Sciences USSR, by V. G. Kochereshkin, 10 pp.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR Seriya Biologicheskaya, No 3, 1967, pp. 456-460.  
JPRS 41650

Depolymerization of Polysaccharides of Wheat Starch by Dry Heating Followed by Heating of a Suspension, by L. V. Babechenko,  
RUSSIAN, per, Izv VUZ Pishchevaya Tekhn, No 4, 1964, pp 2-23.  
NLL RTS 3914  
On Loan Only

Study of Cumulative Effect of Impact Acceleration, by S. A. Gzulov.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 22-26.  
\*NASA TT F-11,134

Oxygen Metabolism of Body exposed to Prolong acceleration, by Ye. I. Sorokoina.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 26-30.  
\*NASA TT F-11,135

Extremal Factors of Long Term Space Flight and Requirements for Health Conditions of Space Crews, by P. V. Buyanov, V. G. Terentiyev.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 52-54.  
\*NASA TT F-11,136

Study of Work and Rest Cyclical of Test Subjects exposed of Relative Isolation, by N. N. Gurovskiy,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 54-59.  
\*NASA TT F-11,137

A Study of Sleep Peculiarities in Conditions Simulating Man space Missions, by V. I. Myashnikov.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 59-63.  
\*NASA TT F-11,138

Scientific  
Biological & Medical Sciences (Contd)

Change in Movement Coordination in Man After Prolonged Confinement in a Small Chamber, by B. A. Dushkov,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 64-70.  
NASA TT F-11,139

Action of Acceleration and Hypokinesia on the Functional State of the Stomach, by P. I. Yegorov, K. V. Smirnov, et al,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 71-74.  
NASA TT F-11,140

Change in Water-Salt Metabolism During 62-Day Hypokinesia, by Ye. N. Biryukov, L. I. Kakurin,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 74-79.  
NASA TT F-11,141

The Effect of Vibration and Noise on the Mental Faculty of Man Under Time Stress, by K. K. Ioseliani,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 79-82.  
NASA TT F-11,142

Nyctometric Studies and the Effect of Distubular Excelleration on the Dark Alductionation, by T. A. Petrova,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol I, No 2, 1967, pp 82-86.  
\*NASA TT F-11,143

On the Trophic Adaptation of Cod and Haddock of the Barents Sea, by R. Ya. Tseeb,  
RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 46-49.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

The Biology and Fishery Prospects of the Gadid Fish in the Northern Atlantic Ocean, by V. K. Zilanov,  
RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 92-97.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Scientific  
Biological & Medical Sciences (Contd)

The Quantitative Distribution of the Zooplankton in the Southern Part of the Davis Strait, by E. A. Pavshikovs,  
RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, Vol IV, 1966, pp 118-122.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Prolonged Life of Pink Salmon in Fresh Water, by E. I. Surkova,  
RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 202-205.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Development of Medical Research in the Belorussian SSR, by P. Ostapenya, 4 pp.  
RUSSIAN, np, Meditsinskaya Gazeta, 2 Jun 1967, p. 3.  
JPRS 41999

Use of Immunoelectrophoresis For the Study of Antigen Structure of Helminths, by O. M. Sokolovskaya, 8 pp.  
RUSSIAN, per, Meditsinskaya Parazitologiya, Vol 33, Nov-Dec 1964, pp. 735-738.  
JPRS 41321

Control of Movements in Man, by V. M. Glushkov, et al, 13 pp.  
RUSSIAN, bk, Modelirovaniye v Biologii i Meditsine, 1966, pp. 34-40, 142-149.  
JPRS 41403

Change of Some Physico-Chemical Indices of Meat in the Process of Keeping it at -2 to 5°C, by M. Gabriel'yan, L. Malyutina,  
RUSSIAN, per, Myasnaya Industriya SSSR, Vol XXXVII, No 2, 1966, pp 41-43.  
NLL RTS 3863  
On Loan Only

New Methods of Phosphorus Determination by A. A. Fedorov.  
RUSSIAN, mono, Novyye Metody Opredeleniya Fosfora, 1965, 160 pp.  
\*PTD NT 66-160

Scientific  
Biological & Medical Sciences (Contd)

Peculiarities of Regeneration Processes in Bone Tissue of Irradiated Animals, by V. A. Poliakov, 5 pp.  
RUSSIAN, per, Ortop. Travm. Protez, Vol 26, No 12, 1965, pp 7-11.  
Dept of Navy/NMB 2028

Ichthyoparasite Fauna of the River Dnestr, by R. P. Shumilo, P. O. Kulakovskaya, RUSSIAN, per, Parasity Shivotnykh Moldaviy i Voprosy Kraovoi Parazitologii, No 2, 1963, pp 45-55.  
NLL RTS 2844  
On Loan Only

The Sea Otter and Stages in Its Investigation, by I. I. Barabash-Nikiforov, RUSSIAN, per, Priroda, No 2, 1938, pp 51-61.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A New Color Reaction for the Pyridine Ring and for the Pyridine Alkaloids, by A. A. Smuk. RUSSIAN, per, Priroda, Vol 22, No 2, 1940, p 65.  
HEW NIH 6-11-67

Radiation and Poison-Gas Injuries, and Protection Against Them, by S. Krasnov. RUSSIAN, bk, Radiatsionnyye Porazheniya, Porazheniya Otravlyayushchimi Veshchestvami i Zashchita ot Nih, 1965, pp 42-49 & 64-134.  
\*ACSI J-2942  
ID 2204030967

On the Possibility of Exploiting the Optomotor Reactions for Direction of Fish Movements, by V. R. Protasov, Yu. P. Altjkhov, RUSSIAN, per, Rybnoe Khoz., No 2, 1961, pp 29-32.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Manufacturing Sausages from Frozen Yellowfin Tuna, by Z. A. Yakovleva, G. S. Khristofersen, RUSSIAN, per, Rybnoe Khoz, Vol XL, No 7, 1964, pp 69-70.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Selected Papers on Fish Culuture, by A. P. Ivanov, V. M. Ivasik, et al, RUSSIAN, per, Rybnoe Khoz, Vol XL, No 11, 1964, 14 pp.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

An Apparatus for Incubating the Pelagic Eggs of Fishes, by A. I. Zotin, G. V. Popova, RUSSIAN, per, Rybnoe Khoz, Vol XL, No 11, 1964, pp 24-26.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Methods of Fishing Distribution and Behavior of Mackerel in the Northwestern Part of the Pacific Ocean, by M. Kundius, RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964, pp 9-13.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Squids from the Gulf of Aden, by G. V. Zuev, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 22.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Early Stages of Moulting in Bachelor fur Seals, by V. A. Bychkov, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 23-24.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Problems of Hygiene in Supplying Water to the Marine Fishing Fleet, by L. I. El'piner, G. S. Morgunova, RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 45-46.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

**Scientific  
Biological & Medical Sciences (Contd)**

Possibility of Utilizing Bering Sea Alaska  
Pollock for Food, by I. V. Kizevetter,  
L. Ya. Ertel',  
RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965,  
pp 61-63.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Parasitic Infestation of Alaska Pollock in the  
Bering Sea and North Pacific Ocean, by  
Yu. L. Mamayev, O. M. Bayeva,  
RUSSIAN, per, Rybnoe Khoz, No 6, 1965, pp 66-68.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Language of Posture in Fish,  
RUSSIAN, per Rybnoe Khoz, No 1 2, 1966, pp 24.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A New Stage in the Culture of Plant-Eating Fishes  
by K. B. Babayan,  
RUSSIAN, per, Rybnoe Khoz, Vol XLII, No 6, 1966,  
pp 4-7.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Evaluating the Forecast of Hydrometeorological  
Conditions and Commercial Fish Crop in the North  
Atlantic and Southern Seas of the European USSR  
for 1965 and 1966, by M. A. Bogdanov, S. I.  
Potaychuk, and Ye. V. Salyankin, 5 pp.  
RUSSIAN, per, Rybnoe Khoz, No. 7, 1966,  
pp. 14-16.  
JPRS 41280

First Seminar on Electric Fishing in Freshwater  
Reservoirs,  
RUSSIAN, per, Rybnoe Khoz, No 9, 1966, pp 20.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Behavior of Black-Sea Anchovy Near Sub-  
merged Light Sources, by E. B. Moiseyeva,  
M. F. Sapin,  
RUSSIAN, per, Rybnoe Khoz, No 11, 1966,  
pp 18-21.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

**Scientific  
Biological & Medical Sciences (Contd)**

The Biologist's Ice-Floe Station, by  
L. A. Popov,  
RUSSIAN, per, Rybnoe Khoz, No 11, 1966, pp 39-40.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Herring of the Korfa-Karagin Region, by  
T. F. Kachina, V. G. Prokhorov,  
RUSSIAN, per, Rybnoe Khoz, Vol XLII, No 12,  
1966, pp 4-5.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Mass Arrival of Young Harp, by  
B. Tambovtsev,  
RUSSIAN, per, Rybnoe Khoz, No 12, 1966,  
pp 17.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Reflection of Sound by Commercial Fish of the  
Northern Basin, by K. L. Yudanov, A. A. Gan'kev,  
RUSSIAN, per, Rybnoe Khoz, No 12, 1966, pp 57-60.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Refrigeration Processing of Tuna, by  
A. G. Ionov, B. N. Semenov,  
RUSSIAN, per, Rybnoe Khoz, No 12, 1966, pp 61-64.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Scientific Council for the Study of  
Salmon, by I. I. Lagunov,  
RUSSIAN, per, Rybnoe Khoz, No 12, 1966, pp 83.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Generalized Relationship Between Catch  
and Fishing Factors, by V. A. Ionas,  
RUSSIAN, per, Rybnoe Khoz, No 2, 1967,  
pp 34-36.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Comm Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Causes for the Decrease in Cod and Haddock  
Catch in 1965, by V. P. Ponomarenko.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 8-11.

\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Characteristics of Hydrological Regime  
of Fish Spawning and Breeding Enterprises  
Located Along Don River Reservoirs, by  
V. G. Dubinina, M. K. Spichak.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 12-13.

\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Changes in the Meat Composition of Flesh  
in Some Far Eastern Fish Species During  
Frying, by M. I. Komarnitskiy.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 52-54.

\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Study of Rest Coefficient Friction in Mackerel  
and Horse Mackerel, by A. Z. Umantsev.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 62-64.

\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Study of Structural and Mechanical Properties  
of Muscle Tissue in Fish, by V. G. Proselkov.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 65-66.

\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Books About the Fishing Industry.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 93-95.

\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Biological Principles of Spectral Characteristics  
of Light Sources Used in Fishing, by  
K. V. Smirnova,

RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 13-15.

\*Dept of Interior  
Fish & Wildlife Service  
BCF, Bureau of Foreign Fisheries

Blood Supply and Hemoglobin Levels in Young  
Eel, by N. D. Zaitseva,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 18-19.

\*Dept of Interior  
Fish & Wildlife Service  
BCF, Bureau of Foreign Fisheries

Iron Salts in Canned Fish, by Yu. Lokshin,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 51-53.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Dietic Canned Fish Products,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 70.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On Infections of Walleye Pollock with Nybelinia  
Larvae and the Utilization of This Fish as  
Food, by P. G. Oshmarin, A. M. Parukhin,  
RUSSIAN, per, Soobshcheniya Dal'nevostochnogo  
Filiala Sibirovskiy Otdel Ak Nauk SSSR, No 14,  
1961, pp 77-80.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Cybernetic Systems in Medicine, by  
M. L. Bykhovskiy, A. A. Vishnevskiy,  
RUSSIAN, rpt, Sovremennye Problemy Teoriy  
Mashin i Mekh, 1965, pp 26-37.

NLL RTS 3733  
On Loan Only

Cybernetics Applications in Sports Training,  
by G. Yelenaki, 6 pp.  
RUSSIAN, per, Tekhnika - Molodshiy, No 4, 1967,  
pp. 36-37.  
JPRS 41998

Organ and Tissue Transplants,  
RUSSIAN, bk, Transplantatsiya Organov i  
Tkaney, 1966.

\*Dept of Navy/AMS 2031

Scientific  
Biological & Medical Sciences (Contd)

Experimental Transplantation of Organs and Tissues, by V. V. Kovanov, 27 pp.  
RUSSIAN, bk, Transplantatsiya Organov i Tkaney v Eksperimente, 1966, pp. 253-255, 256-264, 265-270, 271-277, 333-335.  
JPRS 40868

On the Biology of the Cestode Eubothrium Crassum, by A. Kh. Akhmerov,  
RUSSIAN, per, Trudy Gel'mintologicheskoi Laboratorii Ak Nauk SSSR, Vol XII, 1962, pp 5-8.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

An Experiment in Quantitative Estimation of the Fauna Growing on Different Substrata in Volga Reservoirs Using Diving Techniques, by S. M. Lyakhov, V. P. Mikheyev,  
RUSSIAN, per, Trudy Inst Biol Vnut., Vol VI, No 9, 1963, pp 303-308.  
NLL RTS 3902  
ON LOAN ONLY

The Problem of Synthesizing a Discrete Perception, by K. N. Denisov, et al.  
RUSSIAN, per, Trudy Leningrad. Tsentral'nyy Nauchno-issledovatel'skiy Institut Morskogo Flota, No 77, 1965, pp 82-88.  
\*FTD-MT-24-203-67

Some Questions on the Parasitology of Fishes of the Barents Sea, by Yu. I. Polyanskiy,  
RUSSIAN, per, Trudy Muranskoi Biologicheskoi Stantsiy, Vol III, 1957, pp 175-183.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Quantitative Equivalents for Field Analysis of the Food of Cod, by N. S. Novikova, L. V. Gerasimova,  
RUSSIAN, per, Trudy Murmanskogo Morskogo Biologicheskogo Inst, No 7(11), 1965, pp 68-78.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Genus Merluccius in Maikopian Deposits of the Caucasus, by F. G. Danil'chenko,  
RUSSIAN, per, Trudy Paleontology Inst, Vol XX, 1949, pp 130-140.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Ecology of the Barents Sea capelin and Prospects for Its Commercial Utilization, by V. S. Prokhorov,  
RUSSIAN, per, Trudy Polyarnogo Nauchno-Issled i Proektnogo Inst Morskogo Rybnogo Khoz i Okeanografiy im. N. M. Knipovicha (PINRO), Vol XIX, 1965, pp 1-70.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Biological and Hydrodynamic Sounds Produced by Fish, by A. K. Tokarev,  
RUSSIAN, per, Trudy Vses N. I. inst Morskogo Rybnogo Khoz i Okeanografiy (VNIRO), Vol XXXVI, 1958, pp 276-279.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Pathomorphological Changes and Their Significance in Diagnosis of Virus Hepatitis in Ducklings, by V. I. Bogolepov,  
RUSSIAN, per, Trudy Vses Nauch-Issled i Tekhn Inst Ptitsevodstva, Vol XXX, 1966, pp 163-171.  
NLL RTS 3912  
On Loan Only

Changes in the Properties of Fresh Fish under the Effect of Gamma Rays, by A. V. Kardashev and Yu. A. Korahova, 21 pp.  
RUSSIAN, per, Trudy VNIRO, Vol. 45, 1962, pp. 15-25.  
JPRS 41012

The Cytochemistry of Ultrastructures, by V. G. Pinchuk, 14 pp.  
RUSSIAN, per, Tsitologiya, Vol VI, No. 1, 1964, pp. 3-12.  
JPRS 41442

Study of Chromosome Activity in the Case of Continuous Inbreeding in Drosophila Melanogaster, by V. A. Lychev,  
RUSSIAN, per, Tsitologiya, Vol VII, 1965, pp 325-333.  
NLL RTS 3789  
ON LOAN ONLY

Metabolism of Trehalose in Animals, by I. S. Lukomskaya,  
RUSSIAN, per, Uspekhi Biolog Khim, No 6, 1964, pp 142-155.  
NLL RTS 3872  
ON LOAN ONLY

Scientific  
Biological & Medical Sciences (Conrd)

The Structural Organization and Biochemical Basis of the Movement of Cilia and Flagella, by S. A. Burnasheva, L. G. Fedorova and M. N. Lyubimova, 19 pp.  
RUSSIAN, per, Uspekhi Sovremennoy Biologii, Vol. 56, No. 3(6), 1963, pp. 365-380.  
JPRS 41441

Structure of Globular Proteins According to Data From X-Ray Structural Crystallography, by N. S. Andreyeva, 28 pp.  
RUSSIAN, per, Uspekhi Sovremennoy Biologii, Vol. 58, No. 1 (4), Jul, Aug 1964, pp. 3-21.  
JPRS 41594

Vertical Distribution and Seasonal Dynamics of Organic Matter in the Water of Lake Baikal, by K. K. Votintsec,  
RUSSIAN, rpt, Vertikal'noe Raspredelenie i Sezonnaya Dinamika Organicheskogo veshchestva v Vode oz Baikala, 1955, 10 pp.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

On the Parasite Fauna of Young Cod in the Barents Sea, by Yu. I. Polyanskiy,  
RUSSIAN, per, Vestnik Leningr Univer, Seriya Biologii, No 3, 1963, pp 12-21.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Ophthalmoscopy in Indirect Light, by A. M. Vodovozov, 11 pp.  
RUSSIAN, per, Vestnik Oftamologii, July-Aug 1965, pp. 42-48.  
JPRS 41401

Localization and Activity of Acetylcholinesterase (ACHE) in the Organ of Corti, by V. F. Anichin.  
RUSSIAN, per, Vestn Oto-Rhino-Laryng, Vol VI, 1964, pp 9-14.  
\*FTD HT 23-984-67

The Effect of Space Flight Factors on Functions of the Central Nervous System, by N. N. Livshits,  
RUSSIAN, bk, Vliyaniye Faktorov Kosmicheskogo Poleta na Funktsii Tsentral'noy Nervnoy Sistemy, 1966, P910242067-V  
NASA TT P-413

Scientific  
Biological & Medical Sciences (Contd)

The Effect of Systematic Exposure to High Temperatures on the Human Organism, by P. V. Buyanov, A. V. Beregovkin,  
RUSSIAN, per, Voenno-Meditsinskiy Zhurnal, No 11, 1966, pp 40-44.  
\*Dept of Navy/ APL/JHU J-1015

Methods of Studying the Growth of Fish From Their Scales, by V. L. Briuzgin,  
RUSSIAN, per, Voprosy Ikhtiologii, Vol III, No 2, 1963, pp 347-365.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Study of the Morphology of Brain Tumor Cells Using the Anoptal Microscope, by G. P. Burgman, 6 pp.  
RUSSIAN, per, Voprosy Nevrokhirurgii, No 6, 1963, pp. 42-46.  
JPRS 41630

Complex Investigations of the Physiological Functions in Normal Persons Upon a Change in Nutrition Pattern, by M. A. Sobakin, A. V. Popova, T. A. Braksh, E. Yu. Vende, A. P. Tupikova, A. Z. Roslyakova and L. P. Bol'shova, 10 pp.  
RUSSIAN, per, Voprosy Pitaniya, Vol 26, No 2, 1967, pp. 3-9.  
JPRS 41233

Electrographic Data on the Operation of Biological Clocks of the Human Brain, by L. G. Voronin, V. F. Kononov,  
RUSSIAN, per, Voprosy Psikhologii, No 6, 1966, pp 87-95.  
\*Dept of Navy/ APL/JHU J-1014

Data on the Epidemiological Efficacy of Liver Influenza A2 Monovaccine, by N. V. Popov.  
RUSSIAN, per, Vop Virus, Vol 7, No 1, 1961, pp 47-50.  
HEW NIE 6-14-67

Epidemiological Verification of the Efficacy of Live Influenza Vaccine, by M. Ivanov.  
RUSSIAN, per, Vop Virus, Vol 8, No 3, 1963, pp 291-295.  
HEW NIE 6-25-67



Scientific  
Biological & Medical Sciences (Contd)

The Effect Upon the Human Organism of Active Parachute Jumping from an Aircraft, by Aleksandrov Ivanov, et al, RUSSIAN, per, Voyenno-Meditsinskiy Zhurnal, Vol III, No 4, 1932, pp 257-279.  
ACSI J-2488  
ID 2204020267

Deformities in Bones and Teeth of Hamsters, Caused by Latent Rat Virus, by Z. I. Merekalova, 5 pp.  
RUSSIAN, per, Voprosy Virusologii, No 4, 1965, pp 406-409.  
Dept of Navy 5424/NMS No 2015

Method of Cultivation of Tissue Cultures and Viruses in Rotating Vessels, by G. M. Gumi. RUSSIAN, per, Voprosy Virusologii, No 1, Jan-Feb 1966,  
\*ACSI J-2952  
ID 2204021467

Fluorescent Antibodies for Rickettsia Detection, by N. M. Belayeva, Ye. N. Levina and M. Ya. Korn, 7 pp.  
RUSSIAN, per, Zhurnal Mikrobiologii, Vol 42, Mar 1965, pp. 17-21.  
JPRS 41323

Immunization of Humans With M-44 Live Vaccine Against Q-fever, by A. N. Sterkhova.  
RUSSIAN, per, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 12, 1965, pp 48-52.  
\*FTD-HT-23-1048-67

Mutual Adaptation of Causative Agents and Vectors. RUSSIAN, per, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 6, Jun 1966, pp 133-138.  
\*ACSI J-2948  
ID 2204021067

Phage Sensitivity and Lysogenic State of Antibiotic-Resistant Variants of Type B Paratyphoid Bacilli, by G. M. Adomonite,  
RUSSIAN, per, Zhurnal Mikrobiol. Epidemiologii i Immunobiol., No 10, 1966, pp 144.  
\*ACSI J-2847  
ID 2204028767

Morphology of Immunogenesis in Experimental Anthrax Vaccination, by B. S. Gusman, T. V. Migulina,  
RUSSIAN, per, Zhurnal Mikrobiol. Epidemiologii i Immunobiol., No 12, 1966, pp 58-63.  
\*ACSI J-2846  
ID 2204028667

Scientific  
Biological & Medical Sciences (Contd)

Synthesis of Mediators of the Sympathetic Nervous System and Pigmentation in the Ontogenesis of Vertebrates, by N. S. Smitten, RUSSIAN, per, Zh. Obshch. Biol., Vol XXV, No 1, 1964, pp 51-61.  
NASA TT F-10,952

Materials on Vietnam Vertebrate Fauna, by Dao Van T'en, 20 pp.  
RUSSIAN, per, Zoolog Zhur, Vol XLI(5), 1962, pp 724-745.  
Dept of Navy 5423/NMS 2017

The Occurrence of Philonema Sibirica, by E. A. Romyantsev,  
RUSSIAN, per, Zoologicheskaya Zhurnal, Vol XLIV, No 7, 1965, pp 1082-1083.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Species of "Redbellied Squirrels" (Callosciurus erythraeus, Sciuridae) and Their Distribution in Vietnam, by Dao Van T'en, 7 pp.  
RUSSIAN, per, Zool. Zhur, Vol 44, No 8, 1965, pp 1238-1244.  
Dept of Navy/NMS 2029

Pulse Repetition Frequency Divider by Z. Sh. Zakirzyanov.  
RUSSIAN, Patent 173032, 21 Jul 1964.  
\*FTD HT 23-995-67

Preparative Method for Polymide, by S. V. Vinogradova, V. V. Korshak, et al.  
RUSSIAN, Patent 183383, 1 Aug 63,  
\*FTD HT 23-1015-67

False Rumors on Poisonous Plasma, 8 pp.  
ARABIC, np, al-Jumhuriyyah, 11 Apr 1967, p. 3.  
JPRS 41089

The Hygienic Condition of Streams and Water-Storage Basins in Bulgaria, by Dr. Sp. Novakova and Dr. Em. Evremov, 5 pp.  
BULGARIAN, per, Zdraven Front, No. 16, 22 Apr 1967, pp. 1, 3.  
JPRS 41101

Scientific  
Biological & Medical Sciences (Contd)

Permanent Injury of Human Organism by Thorotrast,  
by F. Zak, F. Stryhal, A. Sosna, J. Burnianek,  
D. Buchalova, 13 pp.  
CZECH, per, Acta Univ. Carolinae Med, Vol 2,  
1956, pp 330-335.  
AEC ANL Tr 366

Malignant Neurilemmoma of the Sciatic Nerve,  
by V. Killian, 6 pp.  
CZECH, per, Roshl. Chir, Vol 40, 1961, pp 732-  
737.  
Dept of Navy/NMS 2027

The Causes and Consequences of an Abnormal Tongue  
Size or Improper Use of the Tongue, by R. W.  
Broekman.  
DUTCH, per, Nederl T Tandheelk, Vol 72, No 6,  
1966, pp 440-454.  
HEW NIH 6-22-67

Medico-Physiological Incidences on the Pilot  
for Flight Patterns Typical of Vtol, by R.  
Auffret, H. Seris.  
FRENCH, rpt, AGARD Collected Papers Presented  
at the 22nd Meeting of the AGARD Aerospace  
Medical Panel, Sept 1965, pp 245-257.  
P910184067  
NASA TT F-470

Experimental Lung Reimplants and Their  
Clinical Significance,  
by B. V. Petrovsky, et al, 10 pp.  
FRENCH, per, Ann Chir Thor Car,  
Vol V, 1966, pp 224-228.  
Dept of Navy 5427/NMS No 2012

Experimental Contribution to the Study  
on Lung Transplants, by M. Weiss, et al.  
23 pp.  
FRENCH, per, Ann Chir Thor Car, Vol V,  
1966, pp 497-505.  
Dept of Navy 5430/NMS No 2016

Lung Grafts, by E. S. Bucherl, 6 pp.  
FRENCH, per, Ann Chir Thor Car.  
Vol V, 1966, pp 520-525.  
Dept of Navy 5419/NMS No 2014

Studies on Classification of Bacteria. III.  
Invalidity of Genus *Bacteroides* Castellard et  
Chalmers. Dismembering and Reclassification,  
by A. R. Prevot, 23 pp.  
FRENCH, per, Annales Inst. Pasteur, Vol 60, No 3,  
1938, pp 285-307.  
Dept of Navy/NMS 2030

Scientific  
Biological & Medical Sciences (Contd)

Benign Bacillus of Cervical Adenitis in the  
Guinea Pig, by R. Vincent, 14 pp.  
FRENCH, per, Ann Inst Pasteur, pp 529-541.  
Dept of Navy 5429/NMS No 2019

Two Cases of Retrorectal Presacral Tumor  
(Neurinoma and Meningocele) Removed by the  
Abdominal Route, by G. Guiot, 11 pp.  
FRENCH, per, Acad. Chir. Mem., Vol 92, 1966,  
pp 261-272.  
Dept of Navy/NMS 2025

Respiratory Rhythm and Physiology of the Egg  
Shell Formation, by Mongin, P., Lacassagne, L.  
pp 101-111,  
FRENCH, per, Annales de Biologie Animale  
Biochimie Biophysique, Vol 6, 1966 pp 101-111.  
\*NASA-TT F 11,157.

The Importance of Depositing Voucher Specimens  
in Reference Herbariums and Citing the Latter  
in Scientific Works Based on Plant Material,  
by J. Leonard.  
FRENCH, per, Bull Soc Roy Botanique Belg, Vol 99,  
1965, pp 5-7.  
HEW NIH 6-20-67

Nature, Formation and Conversion of Polyphosphates  
in Yeast, by P. Lanen, et al.  
FRENCH, per, Centre National de la Recherche  
Scientifique: Acides Ribonucleiques et Poly-  
phosphates: Structure, Synthese et Fonctions  
Strasbourg, July 6-12, 1961, 1962, pp 603-614.  
HEW NIH 6-19-67

Experimental Production of Hemagglutinins and  
Precipitins in *Salix Pomatis*, by J. Cartauxena.  
FRENCH, per, C R Soc Biol (Paris), Vol 79, 1916,  
pp 528-530.  
HEW NIH 6-13-67

Study of Sleep in the Adult and Newborn Guinea  
Pig, by D. Jourvet-Mounier.  
FRENCH, per, C R Soc Biol (Paris), Vol 160,  
No 7, 1966, pp 1453-1457.  
HEW NIH 6-3-67

Evolution of Microsome Structures in the Course  
of Compensatory Hypertrophy of the Liver in  
Rats, by G. Delhumeau de Oney.  
FRENCH, per, Exp Cell Res, Vol 38, 1965, pp 187-  
200.  
HEW NIH 6-2-67

Scientific  
Biological & Medical Sciences (Contd)

Synchronism of Divisions Induced in Hela Cells by an Excess of Thymidine. Study of Eventual Disturbances of the Cellular Cycle, by H. Firsirot, P. Mahieu, 18 pp.  
FRENCH, per, Experimental Cell Research, Vol 45, 1967, pp 11-22. F911225567  
ABC IA Tr-67-37

Schwann Type Sarcoma of the Sacral Region by N. Crangu, et al, 5 pp.  
FRENCH, per, Gyn Obst. Paris, Vol LXIII, 1964, pp 655-659.  
Dept of Navy 5422/NS No 2024

Application of the Conformal Transformation to an Analogous Study of the Heating of Bodies During Re-entry, by P. Sulmont, J. Genot, 20 pp.  
FRENCH, per, Int J. Heat Mass Transfer, Vol 9, 1966, pp 407-416.  
AEC SCR-66-0752

Frequency of Feeding Ad Libitum of the White Rat, by J. LeMagen, S. Tallon. 23 pp.  
FRENCH, per, Jornal de Physiologie, 1966.  
ACSI J-2579  
ID 2204022567

Report on Incidence and Treatment of Leprosy in Katanga, Congo (Kinshasa), 8 pp.  
FRENCH, per, Le Katanga, Vol 8, No 177, 12 May 1967, pp. 9-14.  
JPRS 41603

Tumors of the Thymus in Animals, by M. Vasseur.  
FRENCH, per, Le Thymus, Ses Fonctions et Ses Tumeurs, Paris, Librairie E. le Francois, 1939, pp 47-72.  
HEW NIH 6-15-67

Central Neurological Accidents From Vincristine, by D. Kleinknecht, et al.  
FRENCH, per, Nouv Rev Franc Hemat, Vol 7, No 1, 1967, pp 132-136.  
HEW NIH 6-40-67

Atomic Fresh Food Preservation by Irradiation, by Roland Karari,  
FRENCH, per, Science et Vie, No 583, pp 76-81.  
ACSI J-2367  
ID 2204018567

Scientific  
Biological & Medical Sciences (Contd)

Studies on the Thermosensitivity of Tumor and Normal Cells in Vitro, by E. Bender, et al.  
GERMAN, per, Acta Biol Med German, Vol 17, No 4, 1966, pp 527-543.  
HEW NIH 6-6-67

D-Chloronitrin as a Remedy in Bacterial Fin-Rot, by Th. Matteis,  
GERMAN, per, Aquarien und Terrarien, No 8, 1961, pp 212.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Use of Infrared Absorption Spectroscopy for the Representation of Lipids of the Skin Surface, by T. Salamon, O. Lasovic, and B. Bobarevic, 6 pp.  
GERMAN, per, Archiv fur Klinische und experimentelle Dermatologie, Vol 222, 1965, pp. 541-545.  
JPRS 41324

Genetic and Physiological Bases of Development of Annual Aspects of Plant Societies, by Klaus Napp-Zinn. 21 pp.  
GERMAN, per, Beitrage zur Phytologie, Vol 30, 1964 pp 33-49.  
Dept of Navy tr 5390 ONI 2395

The Effect of Hypophyses and Gonadion, by K. Anwand,  
GERMAN, per, Deutsche Fischerei-Zeitung, 10,77, 1963, pp 202-207.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Culture of One-Summer Pikeperch Fingerlings in Carp Ponds, by K. Anwand, J. Herms,  
GERMAN, per, Deutsche Fischerei-Zeitung, 12, 4, 1965, pp 119-127.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Remarks in Response to the Work of W. Belian, I. Keinert and M. Kappel on the Alleged Effectiveness of Endonasal Immunization Against Influenza, by E. Edlinger.  
GERMAN, per, Dtsch Gesundh, Vol 16, 1961, pp 544-545.  
HEW NIH 6-31-67

**Scientific  
Biological & Medical Sciences (Contd)**

Papers of the DVL-Institute for Aeromedicine Presented at the 6th International and 12th European Congress of Aviation and Space Medicine in Rome, 1963 and at the 13th International Congress of Aviation and Medicine in Dublin, 1964, by W. Briegleb,  
GERMAN, rpt, Deutsche Versuchsanstalt für Luft und Raumfahrt, DLR FS 56-40, 42 pp, 1965.  
\*NASA TT F-10,957

Interpretation of the Extended Rhythmic Reactions of the Cortical Sensory Areas of the Brain, by F. Bremer, et al.  
GERMAN, per, Electroenceph Clin Neurophysiol, Vol 2, 1950, pp 389-400.  
HEW NIH 6-5-67

The Effect of Iliase on Isolated Polytene Chromosomes, by M. Lessi, 5 pp.  
GERMAN, per, Experimental Cell Research, Vol 39, 1965, pp 289-292.  
AEC ORNL Tr-903

Studies on the Formation of Riboflavin Complexes With Phenothiazines, by J. E. Maruchin.  
GERMAN, per, Farm Pol, Vol 22, No 3, 1966, pp 177-190.  
HEW NIH 6-4-67

Handbook of Skin and Venereal Diseases. The Electro Physiology of the Skin, by H. Rein-Freiburg. 46 pp.  
GERMAN, bk, Handbuch der Haut und Geschlechts Krankheiten 172, 1929  
ACSI J-2512  
ID 2204020667

Transitory Hypermetropia in Diabetes Mellitus.  
GERMAN, per, Klin. Monats. F., Vol 68, Aug 1910, pp 38-44.  
Dept of Navy tr 5222 ONI tr 2316

New Knowledge About Prostbite of Greek Soldiers During the War of 1941-1942, by M. Vagliasos. 8 pp.  
GERMAN, per, Munchener Medizinische Wochenschrift, No 46/47, 19 Nov 1943, pp 649-650.  
Dept of Navy tr 5391 ONI 2396

**Scientific  
Biological & Medical Sciences (Contd)**

Autoradiographic Determination of the DNA Doubling Time in Various Types of Mouse and Rat Cells by Double Labelling With <sup>3</sup>H- and <sup>14</sup>C-Thymidine, by Ch. Pilgrim, W. Maurer, 9 pp.  
GERMAN, per, Naturwissenschaften, Vol 49, 1962, pp 544-545.  
AEC UCRL Tr-10072

Notes on the Phenomenon of Granulation, by W. Martienssen, E. Spiller, 6 pp.  
GERMAN, per, Naturwissenschaften, Vol 52, 1965, pp 53-54.  
AEC IA Tr-66-68

Degradation of Thymidine by Transformed Lymphocytes, by J. D. Milton.  
GERMAN, per, Rev Franc Etud Clin Biol, Vol 10, 1965, pp 419-422.  
HEW NIH 6-34-67

Fatal Anaphylactic Shock During Transfusion of a Platelet Concentrate, by R. Flury, et al.  
GERMAN, per, Schweiz Med Wschr, Vol 96, No 28, 1966, pp 918-920.  
HEW NIH 6-38-67

Hereditary Anomaly of the Erythrocytic Membrane With a Positive Coombs Test and Changes in the Group N Antigen, by M. Jeannet, et al.  
GERMAN, per, Schweiz Med Wschr, Vol 93, No 42, 1963, pp 1508-1509.  
HEW NIH 6-27-67

On the Planning and Evaluation of Caries Studies in Animal Experiments, by Thomas M. Marthaler, Hans R. Muhlemann, et al. 30 pp.  
GERMAN, per, Schweizerische Monatschrift für Zahnheilkunde, Vol 67, No 9, pp 755-776.  
Dept of Navy tr 5396 ONI tr 2401

Leukocyte Count as Criterion of Toxicity in Combines Use of Ionizing Radiation and Cytostatic Substances, by E. Fleischmann, et al.  
GERMAN, per, Strahlentherapie, Vol 130, No 4, 1966, pp 586-589.  
HEW NIH 6-29-67

Intake and Excretion of Natural Radiomeloides <sup>210</sup>Po by Humans, by Beowulf Gloebel, Hermann Muth, Erich Oberhausen, 11 pp.  
GERMAN, per, Strahlentherapie, Vol 131, 1966, pp 218-226.  
AEC ANL Tr-458

Scientific  
Biological & Medical Sciences (Contd)

Preservation of Dura, by R. Metz, 7 pp.  
GERMAN, rpt, Wehrmed Mitteilungen,  
1965, pp 159-161.  
Dept of Navy 5425/NMS No 2021

Relationships Between Chemotherapeutic Effect  
Oxidation Catalysis and Redox Potential, by N.  
Von Jancso, et al.  
GERMAN, per, Z Immunitaetsforsch, Vol 88, 1936,  
pp 275-323.  
HEW NIH 6-39-67

Statistical Investigations of Myocardial In-  
fraction by H. Doring.  
GERMAN, per, Z Kreislaufforsch, Vol 51, 1962,  
pp 401-442.  
HEW NIH 6-18-67

Hungarian Study of the Combined Propagation of  
Unicellular Algae and Bacteria, by Gyula Weisz-  
feiler, 8 pp.  
HUNGARIAN, per, Hidrologiai Kozlony, Vol 47,  
No. 1, Jan 1967, pp. 41-43.  
JPRS 41404

The Role of the Hypothalamus, by A. Lacassagne.  
ITALIAN, per, Acta Un Int Cancr, Vol 20, 1964,  
pp 1409-1411.  
HEW NIH 6-8-67

First Meeting of the Health Physics Control of  
the Euratom Nuclear Centers, by E. Carli, 6 pp.  
ITALIAN, per, Energia Nucleare, Vol 12, 1965,  
pp 429-430.  
AEC ORNL Tr-914

Tumors of Peripheral Nerves,  
by U. Modigliani, 12 pp.  
ITALIAN, per, Friuli Med, Vol X, 1955,  
pp 573-582.  
Dept of Navy 5426/NMS No 2020

Benign Tumors of the Extracapsular Biliary  
Ducts, by Antonio Conti, 9 pp.  
ITALIAN, per, Gazzetta Internaz Med e Chir  
Vol LXXII, 1967, No 2, pp 117-124.  
Dept of Navy 5421/NMS No 2018

Nucleic Acids and Histones in the Ontogenesis of  
the Liver in White Rats, by A. I. Klimenko.  
ITALIAN, per, Materialy Simpoziuma po Osnovym  
Probleman Vozrastnoi Fiziologii i Biokhimii,  
Khar'kov Izdat., Khar'kov Univ., 1964, pp 90-93.  
HEW NIH 6-9-67

Scientific  
Biological & Medical Sciences (Contd)

Age-related Characteristics in the Proportion of  
Histones and Nucleic Acids in Liver-cell Nuclei  
of White Rats After Partial Hepatectomy, by A. I.  
Klimenko.  
ITALIAN, per, Materialy Simpoziuma po Osnovym  
Probleman Vozrastnoi Fiziologii i Biokhimii,  
Khar'kov Izdat., Khar'kov Univ., 1964, pp 94-98.  
HEW NIH 6-7-67

A Case of Central Neurinoma of the Sciatic  
Nerve Trunk, by M. Morisi, et al, 9pp.  
ITALIAN, per, Minerva Chir, Vol XIX,  
1964, pp 669-672.  
Dept of Navy 5428/NMS No 2023

Cornelia de Lang's Syndrome of Status Degenerativus  
Amstelodamensis, Presentation of a Case, by G.  
Cordone, et al.  
ITALIAN, per, Minerva Pediat, Vol 17, 1965,  
pp 16-22.  
HEW NIH 6-32-67

Effects of Administration of Tetracycline on  
Dental and Skeletal Development in the Child,  
by G. Lojodice, et al.  
ITALIAN, per, Minerva Pediat, Vol 17, 1965,  
pp 1358-1365.  
HEW NIH 6-33-67

A Case of Acute Eosinophilia in an Infection With  
Animal Nematodes, by H. Szczepanska.  
ITALIAN, per, Pediat Pol, Vol 40, No 7, 1965,  
pp 727-730.  
HEW NIH 6-37-67

Peripheral Nerve Tumors, by S. Di Pietro, 38 pp.  
ITALIAN, per, Tumori, Vol 46, 1960, pp 430-466.  
Dept of Navy/NMS 2026

Effects of Radiation on the Chromosomes of the  
Bone Marrow Cells, by Noboru OZONO, 30 pp.  
JAPANESE, per, Acta Haematol. Jap., Vol 28, No 3,  
1965, pp 308-318. F911222567  
AEC MSJ Tr-78

Screening Test of Anti-Japanese B Encephalitis  
Virus Drugs.  
JAPANESE, per, Acta Pharmaceutica Sinica, Vol 1,  
No 6, 1964, pp  
\*ACSI J-2953  
ID 2204021567

Scientific  
Biological & Medical Sciences (Contd)

Percutaneous Absorption of  $^{35}\text{S}$ -Labeled Sodium Dodecylbenzene-Sulfonate (an Anionic Detergent) in Rabbits, by Akira TAKASE, Tomoko BITO, 10 pp. JAPANESE, per, Bull. Inst. Public Health, Vol 13, No 4, 1964, pp 232-237. AEC NSJ Tr-63

Studies on the Mass Mortality of the Oyster in Matsushina Bay, by Kanno Hisahi, JAPANESE, per, Bulletin of the Tohoku Regional Fisheries Research Laboratory, No 25, Dec 1965, pp 1-104. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Absorption and Mobility of Strontium and Cesium of Fruit Vegetables Using  $^{89}\text{Sr}$  and  $^{137}\text{Cs}$  as Tracers, by Yu-yuan Yeh. JAPANESE, per, Ho Tsu K'o Hsueh, Vol 4, 1964, pp 139-147. AEC SC-T-65-767

Observations on the Length of Time Required to Digest Food, by Hte Mud Loach, Misgurnus, *Anguillicaudatus*, by Kojiro Tanaka, JAPANESE, per, Japanese Journal of Ichthyology, Vol VI, No 1-3, 1955, pp 34-39. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Ecological Studies of Drills in Oyster Beds, by Akimitsu Koganezawa, JAPANESE, per, Miyagiken Suisan Shikenjo Kenkyuhoko, No 3, 1963, pp 1-11. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Effect of Saline-Parotin-A Upon the Leukopenia of Rabbits Caused by X-Irradiation, by Masato SHINODA, Yoshinari TAKAGI, Bunichi TANAKI, 9 pp. JAPANESE, per, Nippon Act. Radiol., Vol 23, No 2, 1963, pp 225-230. AEC NSJ Tr-27

Scientific  
Biological & Medical Sciences (Contd)

Clinical and Experimental Studies on Radiation-Injury to Taste, by Kazuo TANIGAWA, 18 pp. JAPANESE, per, Nippon Act. Radiol., Vol 23, No 6, 1963, pp 704-712. AEC NSJ Tr-32

Radiation Effect on Intestinal Function. I. Studies on Rabbits Intestinal Damage by Abdominal Window Method, by Osamu MATSUOKA, Takehiko TSUCHIYA, Hideo ITO, 9 pp. JAPANESE, per, Nippon Act. Radiol., Vol 24, No 2, 1964, pp 157-162. AEC NSJ Tr-44

An Estimation of Radiation Injury in X-Ray Technicians in Japan, by Takashi KITABATAKE, 12 pp. JAPANESE, per, Nippon Act. Radiol., Vol 24, No 8, 1964, pp 999-1006. AEC NSJ Tr-55

Electroencephalographic Studies on the Effects of Ionizing Radiation to the Central Nervous System. Effects of Head Irradiation to EEG Afterreaction in Rabbit, Yoshimi ONO, 23 pp. JAPANESE, per, Nippon Act. Radiol., Vol 25, No 5, 1965, pp 325-336. F911221067 AEC NSJ Tr-82

Skin Contamination by Radioactive Isotopes. (1). Pig Skin Contamination by  $^{90}\text{Sr}$ - $^{90}\text{Y}$  and  $^{32}\text{P}$ , by Yoshiki WADACHI, Shingo TASHIRO, Yuzo TAJIMA, Tetsuo HIYAMA, 16 pp. JAPANESE, per, Nippon Genshiryoku Gakkaiishi, Vol 5, No 11, 1963, pp 938-943. AEC NSJ Tr-14

The Survival Period in Cases of Chronic Leukemia Treated With Chemotherapy, by K. Kimura. ITALIAN, per, Nippon Naika Gakkai Z., Vol 51, No 8, 1963, pp 1127-1128. HEW NIH 6-24-67

Studies on the Metabolic Turnover of Muscle Proteins. Part 5. Estimation of the Metabolic Half Life of Protein Fractions of Muscles in the Rat Continuously Give  $^{14}\text{C}$ -Chlorella Protein Acid Hydrolyzate, by Ryusai FUNABIKI, Makoto KAMIDATSU. JAPANESE, per, Nippon Nogeikagaku K. Ishi, Vol 39, No 12, 1965, pp 501-507. \*AEC NSJ Tr-88

Scientific  
Biological & Medical Sciences (Contd)

Effect of Temperature on Radiation Induced Male Sterility in the Silkworm, *Bombyx mori* L., by Etsuji SUGAI.  
JAPANESE, per, Nippon Oyo Dobutsu Konchu Gaku Zasshi, Vol 9, No 4, 1965, pp 266-270.  
\*AEC NEJ Tr-89

Ecology and Dynamics of the Skipjack Population (II) Resources and Fishing Conditions, by Tsuyoshi Kawasaki,  
JAPANESE, rpt, Nihon Suisan Shigen Hogo Kyokai Suisan Kenkyu Sosho, 1965, 8-1, 1-48, 8-2, 49-108.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Ecology and Dynamics of the Skipjack Population (I) Resources and Fishing Conditions, by Tsuyoshi Kawasaki,  
JAPANESE, prt, Nihon Suisan Shigen Hogo Kyokai Suisan Kenkyu Sosho, 1965, pp 8-1, 1-48, 8-2, 49-108.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Study of the Biological Function Using Several Radioactive Iodines and Its Clinical Application 1. Study on the Protein Metabolism Using <sup>125</sup>I and <sup>131</sup>I Labelled Proteins, by Yawara YOSHITOSHI, Yoshitaka ARAKI, Tatsuo MIYAZAKI, Masaki KAEIDA, Hiroshi OGAWA, Kazuo NITTA, 14 pp.  
JAPANESE, per, Radioisotopes (Tokyo) Vol 12, No 3, 1963, pp 311-317.  
AEC NEJ Tr-11

Distribution and Migration of the Southern Bluefin Tuna, by Chiomi Shingu,  
JAPANESE, per, Report of Nankai Regional Fisheries Research Laboratory, No 25, Mar 1967, pp 19-36.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Occurrence of the Larvae of *Allothynnus fallai* Serventy in the South Atlantic Ocean, by Keiichiro Mori,  
JAPANESE, per, Report of Nankai Regional Fisheries Research Laboratory, No 25, Mar 1967, pp 105-112.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Record of Occurrence and Some Notes on Young Slender-Tuna from the Stomachs of Longline Tunas and Marlins in the South Pacific Ocean, by Keiichiro Mori,  
JAPANESE, per, Report of Nankai Regional Fisheries Research Laboratory, No 25, Mar 1967, pp 113-120.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A Method Proposed for Advancement of Studies on Feeding Habits of Tunas and Billfishes, by Sigeiti Hayasi, Keiichiro Mori,  
JAPANESE, per, Report of Nankai Regional Fisheries Research Laboratory, No 25, Mar 1967, pp 121-130.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Significance of Preoperative Application of Anticancer Agent and Extensive Radical Operation For Gastric Cancer, by D. Jinnai, et al.  
JAPANESE, per, Rinsho Geka, Vol 18, No 3, 1963, pp 305-313.  
HEW NIH 6-36-67

The Histones of Rice Embryos, by T. Tsuchiya, K. Iwai, T. Ando.  
JAPANESE, per, Seikagaku, Vol 39, 1967, pp 109-117.  
\*AEC

The Killer Whale, by Age Jonsgard,  
NORWEGIAN, per, Fauna, No 1, 1950, pp 1-17.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Investigations on Mycorrhizal Fungi in Dying Forest Stands on Arable Soils, by Tadeusz Dominik.  
POLISH, per, Prace Instytutu Badawczego Lasnictwa, No 257, 1963, pp 3-27  
CFSTI TT 66-57020

Frozen Fish as Raw Material for the Fish-Processing Industry (based on the 1959 data), by Kazimierz Zukowski.  
POLISH, per, Prace Morskiego Instytutu Rybackiego, Vol 13, Ser. C, 1964, pp 87-104.  
CFSTI TT 66-57069

Scientific  
Biological & Medical Sciences (Contd)

Production and Application of Enzyme Preparations in the Food Industry, by Jozef A. Bernat. 4 pp.  
POLISH, per, Przemysl Fermentacyjny i Rolny, No 11, 1966, pp 406-407.

ACSI J-2286  
ID 2204016767

Cure for Chagas Disease Discovered, by Manoel Motta, 6 pp.  
PORTUGUESE, per, O Cruzeiro, 4 Mar 1967, pp. 117-120.  
JPRS 41,078

Proceedings of the Rumanian National Congress on Stomatology, 11 pp.  
RUMANIAN, per, Monitorul sanitar, No 22, 31 May 1967, p. 2.  
JPRS 41611

Psychotronics - Trojan Horse of Irrationality? by Zdenek Rejda, Teodor Rosinsky. 7pp.  
SLOVAK, per, Kulturny Zivot, No 16, 21 Apr 67, p 3.  
JPRS 41,122

Use of the Tularemia Test in Discovering and Delimiting Natural Tularemic Foci, by D. Heneber, M. Morelj, et al.  
SERBO-CROATIAN, per, Vojnosanitetski Pregled, Apr 1967, pp 195-200.  
\*ACSI J-2862  
ID 2204028967

A New Colloid of <sup>99m</sup>Tc in Scintillation Scanning of the Liver, by J. Martinez Seaber, V. Pecorini, O. Degrossi, Amario Olivari, Abraham Chwojnik, 5 pp.  
SPANISH, rpt, CMA-168, Buenos Aires, 1966.  
F911225067  
ABC CHEL Tr-1632

A New Hybrid Breed of Cattle, by Rafael Sanchez Lalebet, 9 pp.  
SPANISH, per, Bohemia, 24 Feb 1967, pp 30, 38, & 90.  
JPRS 41491

Biology and Parasitology of the Galician Mussel, by B. Andreu,  
SPANISH, per, Las Ciencias, Vol XXX, No 2, 1965, pp 107-118.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

The Mussel as Raw Material for Canning, by Andreu Buenaventura,  
SPANISH, per, Informacion Conservera, No 119-20, 1963, pp 404-410.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Fishery for Castaneta or Papamosa, SPANISH, rpt, La Pesca de la Castaneta o Papamosa, 1966, 18 pp.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Schistosoma Mansonii Miracidium, by C. Ottolina,  
SPANISH, per, Revista de San y Assist Soc, Vol XXII, No 4, 1957, pp 41-98.  
\*Dept of Navy/MS

The Fishery for Hale in the Argentina Sea, 1965 (areas of capture and other data), by L. R. Vasques, H. S. Lastape, et al,  
SPANISH, rpt, Secretaria de Estado de Agricultura y Ganaderia de la Nacion, Direccion General de Pesca y Conservacion de la Fauna, 1966, Apr, 30 pp.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Studies on the Development and the Biology of Sporozoan Parasites of Hake, by Lothar Szidat,  
SPANISH, rpt, Secretaria de Estado de Agricultura y Ganaderia, Direccion General de Pesca y Conservacion de la Fauna, 1966, 6 pp.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Cardiac Disorders in the Parachutist, by Ignacio Pons Bardo. 4 pp.  
SPANISH, bk, Trastornos Cardiacos en el Paracaidista, 1967.  
\*ACSI J-2486  
ID 2204020067



Scientific  
Biological & Medical Sciences (Contd)

Intensify Research Activities and the Combination of Oriental and Western Medicine, by Nguyen Duc Thang, 5 pp.  
VIETNAMESE, np, Suo-khoe, 10 Apr 1967, pp. 2 and 8.  
JPRS 41258

Cancer in North Vietnam, 9 pp.  
VIETNAMESE, per, Y-hoc Thuo-hanh, No 1, Jan 1967, pp. 1-5.  
JPRS 40649

A. Minimus Mosquitos in North Vietnam, by Dr. Nguyen Tho Vien, 7 pp.  
VIETNAMESE, per, Y-hoc Thuo-hanh, No 1, Jan 1967, pp. 26-29.  
JPRS 40649

Chemistry

Interaction of Neodymium and Gallium Selenides  $A_{2III}B_3VI$ , by G. Kh. Efendiyev, et al, RUSSIAN, per, Azerb Khim Zh, No 4, 1964, pp 111-114.  
ATS RJ-4725

Changes in the Kinetic Properties fo the Thermal Decomposition of  $KMnO_4$  as a Result of  $Co^{60}$  Irradiation, by V. A. Protashchik, B. V. Yerosfeyev, RUSSIAN, per, Dok Ak Nauk BSSR, Vol X, No 9, 1966, pp 658-661.  
NASA TT F-481

Synthesis and Properties of Polybenzimidazopyrrolone, by E. N. Telshoc, A. N. Pravednikov, RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLXXII, No 6, 1967, pp 1347-1349.  
NASA TT F-10,985

Hydrogenation of Rosin at Atmospheric Pressure, by V. P. Shatlov, et al, RUSSIAN, per, Gidrolis i Lesokhim Prom, Vol XVI, No 6, 1963, pp 5-7.  
NLL RTS 3335  
On Loan Only

Scientific  
Chemistry (Contd)

Diaphragm-Free Method of Water Disinfection by Electrolysis, by L. Ya. Ebert, L. A. Kunina, RUSSIAN, per, Gigiena i Sanitariya, Vol XXVII, No 10, 1962, pp 16-20.  
NLL RTS 3906  
On Loan Only

Use of Ion-Exchange Resins for Removal of Heavy-Metal Impurities from Brines Before Electrolysis with a Mercury Cathode, by E. A. Sheinina, K. M. Saldadze, RUSSIAN, per, Ion Sorb v Prom Ak Nauk SSSR Inst Fiz Khim, 1963, pp 153-159.  
NLL RTS 3946  
On Loan Only

Production of Sulphur by Bacteria, by P. M. Murazayev, RUSSIAN, per, Izv Ak Nauk SSSR, Seriya Biologicheskaya, No 5, 1965, pp 692-699.  
NLL RTS 3870  
On Loan Only

Synthesis of New Anils of Heterocyclic and Aromatic Series, by Yu. A. Zhdanov, I. D. Sadekov, RUSSIAN, per, Iz VUZ Khimiya i Khimicheskaya Tekhnologiya, Vol VIII, No 6, 1965, pp 954-958.  
PI00184267  
FTD HT 67-190

Methods of Determination fo Saturation Pressure, by D. D. Bul'chuk, V. V. Sevlkamov, RUSSIAN, Iz VUZ Neft i Gaz, No 2, 1966, pp 48-50.  
NLL RTS 3860  
On Lona Only

Thermodynamic Analysis of Processes of Autoclave Reduction of Metals From Solutions, by S. S. Naboichenko, et al, RUSSIAN, per, Izv VUZ Tsvet Met, Vol VIII, No 4, 1965, pp 48-53.  
NLL 9022.4 (86/402)

Hydride Method for the Preparation of Particularly Pure Elements, by G. G. Davyatikh, 23 pp. RUSSIAN, per, Khim Khim Tekhnol, Vol 5, 1962, pp 221-232.  
ABC M24-1345

Scientific  
Chemistry (Contd)

Investigation of the Continuous Process of Obtaining Polycaprolactam, by N. D. Katorzhnov, et al, RUSSIAN, per, Khimicheskie Volokna, No 4, 1965, pp 20-22.  
NLL RTS 3926  
On Loan Only

Chemical Method of Fishery Transformation of Lakes, by E. V. Burnakin, RUSSIAN, rpt, Khimicheskiy Metod Rybokhozayaistvennogo Preobrazovaniya Ozer, 1965, 56 pp.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Stabilization of Polyvinyl Acetate Latexes with Non-ionic Emulsifiers, by S. A. Nikitina, V. A. Spiridonova, et al, RUSSIAN, per, Lakokrasochnye Materialy i Ikh Primenenie, No 1, 1965, pp 2-23.  
NLL RTS 3715  
ON LOAN ONLY

Calcium Chromate as an Anticorrosive Thermally Stable Pigment, by M. A. Shtern, et al, RUSSIAN, per, Lakokrasochnye Materialy i Ikh Primenenie, No 3, 1966, pp 13-18.  
NLL RTS 3818  
On Loan Only

Separation of Pigment Suspensions on the Sedimentation Centrifuge NOGSh-325, by I. V. Riskin, E. I. Gerbil'skiy, RUSSIAN, per, Lakokrasochnye Materialy i Ikh Prim, No 3, 1966, pp 66-69.  
NLL RTS 3888  
On Loan Only

Electron Diffraction Study of the Molecular Structure of Ia-Halides, by P. A. Akishin, V. A. Naumov, 6 pp.  
RUSSIAN, per, Nauchnye Doklady Vysshego Shkoly, Khimiya i Khimicheskaya Tekhnologiya, 1959, pp 5-7.  
ABC ARL Tr-349

Chemical Resistance of Cast Iron Containing Spheroidal Graphite in Corrosive Media, by A. A. Gorshkov, V. Yu. Denisevich, RUSSIAN, per, Naukovy Pratsi Inst Livarn Virob Akad Nauk Ukr RSR, No 9, 1960, pp 108-113.  
NLL RTS 3503  
On Loan Only

Scientific  
Chemistry (Contd)

Relation Between Microhardness and Microbrittleness of Refractory Compounds with Their Electron Structure, by G. V. Samsonov, RUSSIAN, per, Porosh. Met., Vol VI, 1966, pp 95-99.  
NASA TT F-10,935

Some Physical Properties of Alloys, by I. G. Barantseva, RUSSIAN, per, Poroshkovaya Metallurgiya, Vol VII, Feb 1967, pp 70-73.  
\*NASA TT F-11,181

The Chemistry of the New Atoms, by V. P. Shantarovich, 5 pp.  
RUSSIAN, per, Problemy Khimicheskoy Fiziki, 1967, pp. 8-13.  
JPRS 41117

Free Radicals and Chemical Luminescence, by V. Ya. Shlyapintokh, 5 pp.  
RUSSIAN, per, Problemy Khimicheskoy Fiziki, 1967, pp. 14-19.  
JPRS 41117

Chemical Reactions in Shock Waves, by P. Ya. Yampol'skiy, 5 pp.  
RUSSIAN, per, Problemy Khimicheskoy Fiziki, 1967, pp. 25-30.  
JPRS 41117

New Heterochain Polymers, by V. V. Korshak, 72 pp.  
RUSSIAN, bk, Progres v polimernoy khimii, 1965, pp. 220-269.  
JPRS 41632

Constitutional Diagram of the System ZrC-Mo, by S. S. Ordan'yan, et al.  
RUSSIAN, per, Sb. Statei Akad. Nauk SSSR, Issled. v Obl. Khim. Silikatov i Okislov, 1965, pp 220-228.  
\*FTD-HT-23-1034-67

Experimental Non-Viscous Metallic Contours of Gallium for Magnetic Hydrodynamic Investigations, by D. S. Kovner, Ye. Yu. Krasil'nikov, et al, RUSSIAN, per, Teplotfizika Vysokikh Temperatur, No 2, 1965, pp 315-317.  
\*FTD-HT-23-972-67

Scientific  
Chemistry (Contd)

Modern Methods of Investigating Liquid Friction Bearings Working in Aggressive Media, by L. I. Mamon, D. V. Galivets. 20 pp.  
RUSSIAN, per, Trudy Dnepropetrovskiy Khimiko-Tekhnologicheskii Institut Imeni F. E. Dzerzhinskogo. Khimiya i Khimicheskaya Tekhnologiya, Chast' II, No 16, 1963, pp 181-188.  
P100189967  
FTD-HT-66-373

Determining the Mechanical Properties of Metal of Welded Low Alloyed Seams by Their Chemical Composition, by B. D. Lebedev. 20 pp.  
RUSSIAN, per, Trudy Dnepropetrovskiy Khimiko-Tekhnologicheskii Institut Imeni F. E. Dzerzhinskogo. Khimiya i Khimicheskaya Tekhnologiya, Chast' II, No 16, 1963, pp 193-201.  
P100189967  
FTD-HT-66-373

The Structure and Properties of Liquid Metals, by A. A. Vertman, A. M. Samarin,  
RUSSIAN, per, Trudy Inst Metallurgiy im A. A. Baikova AN SSSR Metallurgiya, No 10, 1962, pp 108-134.  
NLL RTS 3703  
On Loan Only

Investigation of the Evaporation of Moving Droplets, by A. A. Shcherbakov,  
RUSSIAN, per, Trudy Odesskovo Gosuniversiteta im II Mechnikova Seriya Fizicheskikh Nayk, Vol CLII, No 8, 1962, pp 64-72.  
NLL RTS 3354  
ON LOAN ONLY

Amines as Extractants in Chemistry, by I. A. Shevchuk,  
RUSSIAN, per, Trudy Vses Nauch-Issled Khim React i Osovo Chisty Khim Veshch, Vol XXVII, 1965, pp 251-268.  
NLL RTS 3901  
ON LOAN ONLY

Increasing the Strength of Raw Granules, by L. M. Sulimenco, et al,  
RUSSIAN, per, Tsement, No 3, 1966, pp 3-4.  
ACSI J-2028  
ID 2204012467

The Concentration Dependence of Atomic Mobility in the Sn-Pb and Sn-Zn Liquid Systems, by F. P. Golotyuk, P. P. Kuzmenko, E. I. Kharkov, 16 pp.  
RUSSIAN, per, Ukr Fiz Zhur, Vol 10, 1965, pp 1371-1373.  
ABC IB Tr-49

Scientific  
Chemistry (Contd)

Additional Electric Resistance and Effective Charges of Impurity Atoms in Liquid Tin, by F. P. Golotyuk, P. P. Kuzmenko, E. I. Kharkov, 5 pp.  
RUSSIAN, per, Ukr Fiz Zhur, Vol 10, 1965, pp 1374-1375.  
ABC IB Tr-50

Photoconductivity and Its Infrared Quenching in Mercury Sulfide Crystals with Cu and Ag Impurities by V. E. Lashkar'ov, V. V. Ribalka,  
RUSSIAN, per, Ukr. Fiz. Zh., Vol XI, 1966, pp 372-381.  
NASA TT F-10,920

Influence of Surface Active Substances on the Morphology of Polyurethane, by O. G. Tarakanov, A. I. Demina, 6 pp.  
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, Vol VII, No 2, 1965, pp 224-225. P100172067  
FTD MT 65-537

Structural Transformations During Thermal Treatment of Polyacrylonitrile, by V. A. Kargin, I. A. Litvinov, 8 pp.  
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, Vol VII, No 2, 1965, pp 226-228. P100172067  
FTD MT 65-537

Appraisal of the Degree of Orientation Macromolecules in Polymer Fibers by the Method of Nuclear Magnetic Resonance by A. I. Kol'tsov, M. V. Vol'kenshteyn, 10 pp.  
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, Vol VII, No 2, 1965, pp 250-254. P100172067  
FTD MT 65-537

Synthesis and Properties of Polybenzimidazoles Containing Aliphatic Links in the Basic Chains, by N. A. Adrova, M. M. Koton, 5pp.  
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, Vol VII, No 2, 1965, pp 305-307. P100172067  
FTD MT 65-537

Investigation of the Catalytic Interaction of Hydrogen Chloride and Methanol. Part II: Kinetics of Dehydration of Methanol and Hydrochlorination of Dimethyl Ether on Catalysts Used for Vapor-Phase Synthesis of Methyl Chloride, by Ye. B. Svetlanov, R. M. Flid,  
RUSSIAN, per, Zh. Fiz. Khim., Vol XL, No 12, 1966, pp 3055-3059.  
NASA TT F-10,937

Scientific  
Chemistry (Contd)

Electrodeposition of Coppers from Sulphate Solutions at High Current Densities, by G. A. Emel'yanenko, G. G. Simulin, RUSSIAN, per, Ukrain Khim Zhurnal, Vol XXIX, No 4, 1963, pp 404-408.  
NLL RTS 2830  
On Loan Only

High Temperature Inorganic Compounds, by G. V. Samsonov, RUSSIAN, bk, Vysokotemperaturny Neorganicheskie Soedineniya, 1965, 475 pp.  
\*CFSTI TT 67-59068  
AEC-tr-6873  
UC-4

Characteristics of the Class of Photoluminophors Based on Sulfates, by M. Konstantinova-Shlezinger, et al, RUSSIAN, per, Zh Eksperim i Teoret Fiz, Vol XXIII, No 5, 1952, pp 588-592.  
ATS RJ-4732

Determination of the Absorption Coefficient of Powdered Phosphors, by V. V. Antonov-Romanovskiy, RUSSIAN, per, Zh Eksperim i Teoret Fiz, Vol XXVI, No 4, 1954, pp 459-472.  
ATS RJ-4731

Intermolecular Interaction and the Equations of State for a Highly Excited Gas, by V. N. Mal'nev, S. I. Pekar, RUSSIAN, per, Zh. Eksperim. i Teor. Fiz., Vol LI, No 6(12), 1966, pp 1811-1820.  
\*NASA TT F-10,936

Organosilicon Derivatives of Ferrocene, by Kuan-li Wu, 15 pp.  
CHINESE, per, Hua Hsueh T'ung Pao, No 5, 1963, pp 293-301. P100200667  
FTD-HT-66-488

Membrane Filters in the Analysis of Aerosols and Industrial Dust, by K. Spurny. CZECH, per, Chemické Listy, Vol LIV, No 9, 1960, pp 947-962.  
\*CFSTI TT 67-59064

Continuous Precipitation Process of Plutonium Salts, by Pierre Richard, FRENCH, rpt, CEA-R-3198, Mar 1967.  
\*AEC ORNL-tr-1720

Scientific  
Chemistry (Contd)

Preparation and Study of the Nitrides and Mixed Carbide-Nitrides of Uranium and of Plutonium, by Francois Anselin, FRENCH, rpt, CEA-R-2988, Jun 1966.  
\*AEC ORNL-tr-1722

Sensitivity of Austenitic Alloys With a High Nickel Content to Stress Corrosion and Intergranular Attack, by H. Coriou, L. Grall, C. Mahieu, M. Pelras, 19 pp.  
FRENCH, rpt, CEA, Chem Dept, Jun 1965.  
P911223867  
AEC ORNL Tr-1627

Study of the Solubility of Plutonyl Nitrate With a View to Its Extraction by a Solvent, by Gerard Vergnaud, 71 pp.  
FRENCH, rpt, CEA-R 2946. Thesis Presented at the Conservatory of Arts and Vocations, 21 Sep 1965. P911224167-V  
AEC ORNL Tr-1263

Study of Chrome-Nickel-Iron Austenites for Their Corrosion Behavior From the Standpoint of Their Application in the Nuclear Field, by H. Coriou, L. Grall, M. Pelras, 31 pp.  
FRENCH, rpt, Paper Presented at 3rd International Congress on Metal Corrosion, Moscow, 16-25 May 1966. P911221967  
AEC ORNL Tr-1628

Gastric and Duodenal Changes Produced in Saline Solutions as a Function of Their Molecular Concentration: The Regulatory Reflex - of the Pyloric Sphincter, by P. Carnot, A. Chassevant, FRENCH, per, Comptes Rendus Soc Biol, Vol LVIII, 1905, pp 173-176.  
NASA TT F-10,926

Intergranular Corrosion of Austenitic Stainless Steels in Highly Oxidizing Acid Media, by H. Coriou, A. Desestret, L. Grall, J. Hochmann, 14 pp.  
FRENCH, per, Corr. et Anticorr., Vol 14, No 4, 1966, pp 163-170. P911220567  
AEC ORNL Tr-1623

Scientific  
Chemistry (Contd)

Effect of Carbon and Heat Treatment on the Secondary Passivity of Austenitic Stainless Steels of the Cr 18/Ni 12 Type Containing or Not Containing Titanium, by A. Desestret, M. Froment, FRENCH, per, Corrosion et Anticorrosion, Vol XII, No 1, Jan 1967, pp 3-8. P100199067  
FTD-HT-66-388/1,2,4

The Investigation of Higher-Order Transformations by Thermal Analysis, by Jean Jaffray, 6 pp. FRENCH, per, J. Rech. Cent. Nat. Rech. Sci. Lab. Bellevue, Vol 1, 1946-1947, pp 161-162.  
AEC BC-T-66-0759

Stainless Steels With a Silicon Addition: General Study of Their Behavior in Highly Oxidizing Acid Media, by E. Coriou, J. Demestre, A. Desestret, L. Grall, 20 pp. FRENCH, per, Revue de Metallurgie, Vol 62, 1965, pp 1193-1203. P911221567  
AEC ORNL Tr-1626

Separation of  $\text{Eu}^{152}$ ,  $\text{Pu}^{147}$ , and  $\text{Am}^{246}$  Through Electrophoretic Focusing Using the Sodium Polyposphate as Complexing Agent, by Georges Marcu. FRENCH, per, Stud. Univ. Babeş-Bolyai, Ser. Chem., Vol 11, No 2, 1966, pp 61-66.  
AEC ORNL Tr-1717

Literature Search on the Deposition of Layers of Molybdenum, Tungsten, and Rhenium by Thermal Decomposition of Their Gaseous Halides, by M. Kadner, GERMAN, rpt, Battelle Memorial Institute, Frankfurt am Main, 1966, 19 pp.  
NASA TT F-10,914

Beta-(Hydroxy-phenyl)-ethyl Amines and Their Transformations. V. Condensation of Hydroxy-phenylethyl Amines With Alpha-ketonic Acids, by G. Hahn, et al. GERMAN, per, Ber Dtsch Chem Ges., Vol 71, No 10, 1938, pp 2141-2153.  
HEW NIH 6-28-67

Condensation of Tryptamine With  $\alpha$ -Ketonic Acids,  $\alpha$ -Ketodicarboxylic Acids and  $\alpha$ -Diketodicarboxylic Acids, by G. Hahn, et al. GERMAN, per, Ber Dtsch Chem Ges., Vol 71, No 10, 1938, pp 2165-2175.  
HEW NIH 6-30-67

Scientific  
Chemistry (Contd)

A Simple Method for the Preparation of Optically Active -Phenylethylamine, by W. Theilacker, H. G. Winkler. GERMAN, per, Chem Ber., Vol LXXXVII, 1954, pp 690-691.  
ATS 1199-GJ

Calculation of the Absorption Spectra of a Phthalocyanine in Various Protonation Stages and of a Tetrabenzoporphine, by H. D. Forsterling, H. Kuhn. GERMAN, per, Chimia, Vol XIX, No 5, 1965, pp 322-324.  
ATS 1195-GJ

Rule for Estimating Chemical Displacement of Protons in a Double-Bond, by C. Pascual, J. Meier, and W. Simon, 7 pp. GERMAN, per, Helvetica Chimica Acta, Vol 49, No 21, 1966, pp. 164-168.  
JPRS 41995

Use of Mass Spectrometry In Chemical Analysis, by E. Schumacher. GERMAN, per, Mitt Lebensmitt Hyg., Vol 54, No 6, 1963, pp 456-471.  
HEW NIH 6-16-67

Quantitative Analysis of Sodium Sulfate, Sodium Sulfite, Sodium Thiosulfate Sodium Sulfide and Sodium Polysulfide ( $\text{Na}_2\text{S}_2$ ), Sodium Oxide, and Sodium Carbonate in Coexistence, by Werner Sack, 9 pp. GERMAN, per, Zeit. Anal. Chem., Vol 131, 1950, pp 199-206.  
AEC AI Tr 223

A Simple Method for the Selection of Mutants, by Gerhard Braunitzer, Gerd Hoben, Kurt Hannig, 5 pp. GERMAN, per, Z. Physiol. Chem., Vol 338, 1964, pp 278-280.  
AEC ORNL Tr-1085

Synthesis of Peptides Containing Selenium. XII. Diseleno-Oxytocin, by W. Frank, 15 pp. GERMAN, per, Zeitschrift für Physiologische Chemie, Vol 339, 1964, pp 222-229. P911220967  
AEC NP Tr-1528

Study on the System of Zirconium and Chlorine, by Kotaro UCHIMURA, Etsuo FUKAKI. JAPANESE, per, Danki Kagaku, Vol 33, 1965, pp 163-167.  
AEC

Scientific  
Chemistry (Contd)

Sublimation Pressures and Some Thermodynamic Properties of Zirconium and Hafnium Tetrachlorides, by Koemon FUNAKI, Kotaro UCHIMURA. JAPANESE, per, Danki Kagaku, Vol 33, 1965, pp 167-171.  
\*ABC

Thermodynamics for the Extraction of Uranyl Nitrate and Nitric Acid by Organophosphorous Compounds, by Tomota NISEI, Mitsuru ASANO, 24 pp. JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66, No 10, 1963, pp 1428-1433.  
AEC NSJ Tr-13

Radiation Induced Copolymerization of Tetrafluoroethylene With Vinylchloride at Low Temperature, by Yonaho TABATA, Kumeo HAMANOUE, Hiroshi SOBUE, 8 pp. JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67, No 3, 1964, pp 482-484.  
AEC NSJ Tr-45

Radiation-Induced Copolymerization of Tetrafluoroethylene With Isobutylene. 1. Synthesis of the Copolymer, by Kenkichi ISHIGURE, Yonaho TABATA, Keichi OSHIMA, Hiroshi SOBUE, 9 pp. JAPANESE, per, Kogyo Kagaku Zasshi, Vol 68, No 3, 1965, pp 558-561. F911222767  
AEC NSJ Tr-75

The Effects of Preirradiation on the Activities of Solid Acidic Catalysts, by Akio MITSUTANI, Tamotsu EGUCHI, Yoshito HAMAMOTO, 18 pp. JAPANESE, per, Kogyo Kagaku Zasshi, Vol 68, No 4, 1965, pp 695-699. F911222867  
AEC NSJ Tr-73

Radiation-Induced Copolymerization of Carbon Monoxide With  $\alpha$ -Olefines; Such as Propylene, Butene-1, and Isobutylene, by Kumeo HAMANOUE, Yonaho TABATA, Hiroshi SOBUE, 9 pp. JAPANESE, per, Kogyo Kagaku Zasshi, Vol 68, No 4, 1965, pp 700-702. F911222967  
AEC NSJ Tr-74

Theoretical Considerations on the Contributions of Chemical Reactions to the Separation Factor of Isotopes, by Hidetake MAKINAKA, Kimiko KIRIYU, 15 pp. JAPANESE, per, Nihon Kagaku Zasshi, Vol 86, No 2, 1965, pp 151-157. F911223667  
AEC NSJ Tr-77

Scientific  
Chemistry (Contd)

The Problem of Photosensitization in Polymer Chemistry. Part 2, by J. Rabek, POLISH, per, Polimery, Vol IX, No 6, 1964, pp 221-225.  
ATS PJ-4709

The Problem of Schooling Technologists, by W. Bobrownicki. 4 pp. POLISH, per, Przemysl Chemiczny, Vol 45, No 1, pp 8-9.  
ACSI J-2555  
ID 2204021467

Properties of Gases and Liquids, by Stanislaw Bretsznajder, POLISH, bk, Wlasnosci Gazow i Cieczy, 1965, 535 pp.  
\*CFSTI NASA TT F-512

Activity Coefficients of 1,1-Electrolytes in Dimethyl Sulfoxide, by T. Skerlak, B. Ninkov, V. Sislov, 7 pp. SERBO-CROATIAN, per, Glasnik Drustva Hemicara i Tehnologa NR Bosne i Hercegovine, Vol 11, 1962, pp 39-42  
AEC UCRL Tr-1330

Utilization of Production Capacities in the Yugoslav Chemical Industry, by Branko Seferovic, 17 pp. SERBO-CROATIAN, per, Produktivnost, Vol. 9, No. 2, Feb 1967, pp. 98-102.  
JPRS 41002

Earth Science & Oceanography

The Characteristics of Atmospheric Processes on Days With a Low Cloud Cover, by K. G. Abramovich. 27 pp. RUSSIAN, per, Ak Nauk SSSR. Institut Kristallografi. Rost Kristallov, No 136, 1964, pp 12-26.  
P100188567  
FTD-MT-66-23

Analysis Results of the Seismic Noise Level in the 1-5 Cps Frequency Range on the Bottom of the Black Sea at Depths of 1000M, by L. N. Rykunov. RUSSIAN, per, AN SSSR, Mezhdunarodstvennyy Geofizicheskiy Komitet. Stroyeniye Chernomorskoy Vpadiny; Sbornik Statey., 1966, pp 85-87.  
\*FTD-MT-23-1054-67

Scientific  
Earth Science & Oceanography (Contd)

Ten Years in Antarctica, by Ye. I. Tolstikov,  
15 pp.

RUSSIAN, per, Antarktika: Doklady Komissii  
1965 g., 1966, pp. 7-16.

JPRS 41596

Some International Questions of Scientific  
Cooperation in the Antarctic, by V. I. Ptitsyn,  
12 pp.

RUSSIAN, per, Antarktika: Doklady Komissii 1965 g.  
1966, pp. 17-24.

JPRS 41596

Cartographic Work Carried Out by the USSR in  
the Antarctic Over a Ten-Year Period, by  
B. V. Dubovskiy, 85 pp.

RUSSIAN, per, Antarktika: Doklady Komissii 1965 g.  
1966, pp. 130-167.

JPRS 41586

Observation of Type-III Radiobursts, on AIS

"Venera-2", by V. I. Slysh,

RUSSIAN, per, Astronomicheskii Zhurnal, Vol  
XLIV, No 3, 1967, pp 487-489.

Sci Tech Info Facility

ST-Sp-10629

Biological and Oceanographic Conditions  
for Formation of Commercial Concentrations  
of Fish, by P. A. Moiseyev.

RUSSIAN, bk, Biologicheskie i Okeanograficheskie  
Usloviya Obrazovaniya Promyslovyykh Skoplenii  
Ryb, 1966, 280 pp.

\*CFSTI TT 67-59063

Research Data on Cetaceae of Far Eastern Seas,  
by B. A. Zenkovich,

RUSSIAN, per, Bulletin of Far Eastern Branch  
of Academy of Sciences of USSR, No 10, 1967,  
Dept of Interior

Fish and Wildlife Service

BCF, Bureau of Foreign Fisheries

Ten Years of Soviet Antarctic Research, by  
A. G. Chernov, 57 pp.

RUSSIAN, bk, Desyat' let sovetskikh issledovaniy  
v Antarktide, No 8, 1966, pp. 1-56.

JPRS 41701

New Data on the Pseudosuchia of the USSR, by  
V. G. Ochev,

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIII,  
No 4, 1958, pp 749-751.

NLL RTS 3861

ON LOAN ONLY

Scientific  
Earth Science & Oceanography (Contd)

Isostasy of the Antarctic, by S. A. Ushakov,  
A. I. Frolov.

RUSSIAN, per, Doklady Ak Nauk SSSR, Geofizika,  
Vol CLX, No 4, 1965, pp 819-822.

ACIC TC-1212

Azimuthal Dependence of Group Velocities of  
Rayleigh Surface Seismic Waves Based on  
Observations in Simferopol', by I. I. Popov,  
S. A. Kapitanova.

RUSSIAN, per, Geofiz Sbornik ANUKrSSR, No 18,  
1966, pp 94-98.

\*FTD HT 23-991-67

On Relation of Magnetic Anomalies to the  
Structure of the Earth Crust in the Southeastern  
Part of Central Kazakhstan, by L. I. Puchkova,  
A. V. Ladynin.

RUSSIAN, per, Geologiya i Geofizika, No 12,  
1965, pp 126-134.

ACIC TC 1193

Oil Bearing Palaeozoic Deposits of the South-  
ern Baltic Region. Part II, Oil Bearing Deposits  
of the Baltic Region, by E. M. Lyutkevich,

RUSSIAN, per, Geolog i neft Pal Uzh Pribaltiki,  
Vol I, No 2, 1965, pp 107-127.

NLL RTS 3797

ON LOAN ONLY

Oil Bearing Levels in the S-W Parts of the

Baltic States, by K. A. Sakalauskas,  
RUSSIAN, per, Geolog i neft Pal Uzh Pribaltiki,  
Vol I, No 2, 1965, pp 127-136.

NLL RTS 3798

ON LOAN ONLY

Potential Gas and Oil Bearing Sediments of the  
Middle Upper Cambrian in the Baltic States, by  
K. A. Sakalauskas,

RUSSIAN, per, Geolog i Neft Pal Uzh Pribaltiki,  
Vol I, No 2, 1965, pp 136-143.

NLL RTS 3800

ON LOAN ONLY

Calculations of Low-X Frequency Electromagnetic  
Wave Propagation in an Earth Ionosphere Wave-  
guide, by E. G. Guseva, S. D. Fligel,

RUSSIAN, per, Geomagnetizm i Aeronomiya, Vol VI,  
No 1, 1966, pp 97-104.

\*ACSI J-2870

ID 2204029467

Scientific  
Earth Science & Oceanography (Contd)

Freezing Soils For the Construction of Underground Engineering Utilities, by M. G. Bass, 9 pp.  
RUSSIAN, per, Gorodskoye Khozyaystvo Moskvy, No 3, Mar 1967, pp. 30-33.  
JPRS 41320

Lithogenesis of Plastic Clay Sediments in Seas, by M. M. Yermolayev.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, No 1, 1948, pp 121-138.  
\*Dept of Navy/NOO tr 355

Instantaneous Systems of Sq-Currents During the Equinox IGY, by V. M. Mishin, A. D. Bazarzhapov, et al,  
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Sibirskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 49-61.  
• NASA GSFC Tr-67

UT-Component in Sq-Variation during II IPY, by V. N. Mishin, A. I. Eruschencov,  
RUSSIAN, per, Izv Ak Nauk SSSR, Sibirskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 62-77.  
\*NASA GSFC Tr-68

The Durnal Variations of Electrical Conductivity in the Sunlight E-Layer, by V. M. Mishin, A. I. Eruschencov,  
RUSSIAN, per, Izv Ak Nauk SSSR, Sibirskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 78-83.  
\*NASA GSFC Tr-69

About the Influence of the Daily Rotation of the Geomagnetic Dipole on Sq-Variation, by A. V. Acopian,  
RUSSIAN, per, Izv Ak Nauk SSSR, Sibirskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 84-89.  
\*NASA GSFC Tr-70

Scientific  
Earth Science & Oceanography (Contd)

Annual Variations of Mid-Latitude Sq-Currents During IGY, by V. M. Mishin, E. M. Mentzova.  
RUSSIAN, per, Izv Ak Nauk SSSR, Siborskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 90-101.  
\*NASA GSFC Tr-71

Main Impulses of the Sudden Commencements Near the Regions of the Cosmis Radio-Noise Absorption by K. G. Ivanov,  
RUSSIAN, per, Izv Ak Nauk SSSR, Siborskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 102-109.  
\*NASA GSFC Tr-72

The Statistical Investigation of H's Local Variations During Quiet Days (Summer), by N. I. Svinskih, M. L. Platonov,  
RUSSIAN, per, Izv Ak Nauk SSSR, Siborskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 126-132.  
\*NASA GSFC Tr-73

Analytic Representation of the Geomagnetic Field on Data of Satellites, by N. K. Osipov,  
RUSSIAN, per, Izv Ak Nauk SSSR, Siborskoe Otdel Siborskogo Inst Magnetizma Ionosferi i Rastrostraneniya Radiovoln, No 1, 1966, pp 146-152.  
\*NASA GSFC Tr-66

Some Characteristics of Thermics and Currents of the Sea of Japan, by A. K. Leonov.  
RUSSIAN, per, Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, No 3, 1958, pp 244-264  
\*Dept of Navy/NOO tr 358

On the Problem of Determining the Deflection of the Vertical on the Basis of Molodenskiy's Theory, by V. P. Stoykov.  
RUSSIAN, per, Iz VUZ Geodesy and Air-Photo Surveying, No 3, 1966, pp 75-87.  
ACIC TC 1202

On the Problem of Interpolating Derivatives of the Gravity Potential in a Mountainous Region, by V. I. Aronov, V. M. Gordin.  
RUSSIAN, per, Iz VUZ Geodesy and Air-Photo Surveying, No 3, 1966, pp 88-93.  
ACIC TC-1203

On the Zonality of Magmatic Manifestations in the Crimean Mountains, by A. I. Shalimov.  
RUSSIAN, per, Iz VUZ Geologiya i Razvedka, No 8, 1966, pp 7-17.  
ACIC TC-1163



Scientific  
Earth Science & Oceanography (Contd)

Contribution to the Theoretical Basis of the Induction Method of Determining the Electric Conductivity of Rocks and Ores, by R. M. Kamenetskaya.  
RUSSIAN, per, Iz VUZ Geologiya i Razvedka, No 8, 1966, pp 109-117.  
ACIC TC-1164

Borehole Variant of the Method of Transient Processes, by V. M. Timofeyev.  
RUSSIAN, per, Iz VUZ Geologiya i Razvedka, No 8, 1966, pp 118-126.  
ACIC TC-1165

A Two-layered Model of the Venus Atmosphere. On the Interpretation of Radar Observations, by A. D. Kuz'min. 8 pp.  
RUSSIAN, per, Laboratoriya Radioastronomii, 1966, pp 1-6.  
Dept of Navy NRL tr 1104

Luminescence of Rare Earth Ions in Crystals of the Scheelite Type, by A. M. Morozov, et al.  
RUSSIAN, bk, Luminescentsiya Redkozemel'nykh Ionov v Kristallakh Tipa Shevelita, pp 102-107.  
ACSI J-2571  
ID 2204021867

Participation of the Mongolian People's Republic (MNR) in the Council of Economic Cooperation on Geological Problems, by B. N. Yerofeyev, M. Tserendorzh.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 7-12.  
JPRS 41,425

Lower Carboniferous Deposits of the Northern Gobi, by A. A. Khrapov. 15pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 23-30.  
JPRS 41,425

Comparison of the Mesozoic Continental Deposits of Mongolia and Other Regions of Asia, by G.G. Martinson. 7pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 61-64.  
JPRS 41,425

Principal Characteristics of Intrusive Magmatism of the Caledonian Folded Region of Northwestern Mongolia, by V. A. Amantov, B. Luvsan-Danzan. 39pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 86-110.  
JPRS 41, 425

Scientific  
Earth Sciences & Oceanography (Contd)

New Data on the Alkaline Rocks of Western Prikhubsugul'ye, by B. Luvsan-Danzan, R. A. Khasin. 9pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 111-116.  
JPRS 41,425

Geology of the Crystalline Complex of the Eastern Margin of the Khuchzhingain-Nuru Range in Northern Mongolia, by I. S. Boguslavskiy, A.N. Rasskazchikov. 10pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 117-123.  
JPRS 41,425

Tectonics of the Barun-Khurayskaya Basin, by P. S. Matrosov. 21pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 139-152.  
JPRS 41,425

Typomorphic Elements of Ore Minerals and Some Characteristics of the Metallogeny of Eastern Mongolia, by A. D. Kalenov. 13pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 153-160.  
JPRS 41,425

Industrial-Genetic Types of Mongolian Fluorite Deposits, by N. F. Konstantinov, N. A. Zimina. 11pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 161-167.  
JPRS 41,425

The Tabuntologoyskoye Deposit of Coking Coals in the Southern Gobi, by G. Ya. Borodyayev, N. A. Marinov. 24pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 168-183.  
JPRS 41,425

The New Shagain-Teg Brown Coal Deposit in Southwestern Mongolia, by V.F. Cherepovskiy. 10pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 184-190.  
JPRS 41,425

Hydrogeological Conditions of Water Supply of the Pasture Land of the Mongolian People's Republic, by Zh. Chogdon. 27pp.  
RUSSIAN, bk, Materialy po Geologii Mongol'skoy Narodnoy Respubliki, 1966, pp 196-213.  
JPRS 41, 425

Scientific  
Earth Science & Oceanography (Contd)

The Structure of the Shelf and Continental Slope Off West Spitsbergen, by P. S. Vinogradova, RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 49-58.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

The Importance of Long-period Tides for the Study of Circulation of Water and Drift Ice in the Margin of the Arctic, by V. N. Vorobyev, RUSSIAN, per, Materialy Sessiy Uchenogo Soveta PINRO po Rezul'tatam Issled v 1964g, No 6, 1966, pp 75-80.  
\*Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Powerful Injection Into a Turbulent Boundary Layer, by M.M. Gurfink. RUSSIAN, per, Mekhanika, No 5, 1965, pp 152-153.  
\*ACSI J-2939  
ID 2204020867

Permafrost Soils and Their Regimes, RUSSIAN, bk, Merzlotnyye Pochvy i ikh Rezhim, 1964, 164 pp.  
\*CFSTI TT 67-59067

Solving Some Inverse Problems of Satellite Meteorology, by Ye. P. Borisenkov, 16 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 3-13.  
JPRS 41406

One Method of Solving Complete Hydrodynamics Equations for the Purposes of Numerical Forecasting, by M. P. Pipko and V. P. Sadokov, 10 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 14-21.  
JPRS 41406

Determination of the Original Cyclone Travels and the Expected Evolution of Isallobaric Regions Near the Surface of the Earth, by A. N. Mertsalov, 8 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 22-27.  
JPRS 41406

Scientific  
Earth Science & Oceanography (Contd)

The Use of Natural Constituents for Forecasting Field H<sub>500</sub> for 3-5 Days in Eastern Siberia, by A. V. Borodina, 10 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 28-34.  
JPRS 41406

Statistical Structure of the Vertical Distribution of Ozone in Temperate Latitudes, by Yu. A. Shafrin, 10 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 35-42.  
JPRS 41406

Vertical Structure of the Intratropical Convergence Zone of the Eastern Hemisphere and Weather Conditions In It, by T. S. Kruzhkova, 11 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 43-50.  
JPRS 41406

The Effect of Electric Forces on the Coagulation of Rain Drops, by N. V. Krasnogorskaya, 12 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 51-59.  
JPRS 41406

Study of the Effect of Solar Activity on the Temperature Changes in the Stratosphere, by T. Kh. Geokhlanyan, 13 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 60-69.  
JPRS 41406

On the Reliability of Hydrological Forecast Methods, by P. M. Mashukov, 6 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 75-78.  
JPRS 41406

The Sizes of Thunderstorm Sources, by T. V. Lobodin, 6 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 79-81.  
JPRS 41406

Geographic Distribution of the Total Ozone Content According to the Measurements of INS Ob' (November 1965-January 1966), by F. P. Belov, A. M. Yeroshkin, A. P. Koptev and R. F. Fedorov, 6 pp. RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 82-84.  
JPRS 41406

Scientific  
Earth Science & Oceanography (Contd)

International Congress on Astronautics, by K. Ya. Kondrat'yev and Yu. M. Timofeyev, 8 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 93-96.  
JPRS 41406

Some Works of the Meteorological Section of the 11th Pacific Ocean Congress, by A. Kh. Khurgian, 9 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 96-100.  
JPRS 41406

Representativeness of Rain Gage Data, by M. V. Gushchina, R. L. Kagan and A. I. Polishchuk, 9 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 101-106.  
JPRS 41406

Loss of Precipitation Used in Wetting the Rain Gage Bucket, by N. N. Bryazgin, L. P. Kuznetsova, G. A. Maksimov, I. N. Mechayev and Ts. A. Shver, 6 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 106-109.  
JPRS 41406

Psychrometric Observations in Regions with Unstable Negative Temperatures, by F. S. Stefanenko, 2 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 112-113.  
JPRS 41406

Investigation of Wind-Caused Waves in the Sea, by B. Kh. Blukhovskiy, 6 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 114-116.  
JPRS 41406

New Books, 1 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 117-118.  
JPRS 41406

Literature on Meteorology and Hydrology for 1966, 10 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 118-122.  
JPRS 41406

Scientific  
Earth Science & Oceanography (Contd)

Government Awards, 9 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, pp. 124-128.  
JPRS 41406

In the Main Administration of the Hydrometeorological Service, by V. N. Zakharov, 2 pp.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No. 3, Mar 1967, p. 128.  
JPRS 41406

Aluminum House for Beyond the Arctic Ports (& Ice Islands).  
RUSSIAN, per, Morskoi Flot, No 2, 1967.  
\*Dept of Navy ONI

Turbidity, Transparency and Color of Water in the Estuary Area, by I. A. Ray, K. Bondar. 13 pp.  
RUSSIAN, bk, Mutnost', Prozhachnost' i Tsvet Vod Vzmor'ya. Gidrologiya Ust'yevoy Oblasti Dumaya, 1963, Chap. 12, pp 326-332.  
DEPT OF NAVY tr 5402/NOO tr 258

Underwater Observations Made with a Deep-Water Hydrostat, by O. N. Kiselev,  
RUSSIAN, per, Nauch.-Tekh. Byull. PINRO, No 2-3 (16-17), 1961, pp 72-76.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

Structure of the Crystalline Basement in the Southeast Part of the Russian Platform and Its Border According to Data of Aeromagnetic Survey For (ΔT), by D. P. Kasatkin.  
RUSSIAN, per, Neftegazovaya Geologiya i Geofizika, No 4, 1966, pp 34-37.  
ACIC TC-1236

A Study of the Main Regularities in the Water Structure of the World Ocean, by V. N. Stepanov,  
RUSSIAN, per, Okeanologicheskie Issled., No 13, 1965, pp 9-16.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Spectral Method in the Investigation of Internal Waves, by N. T. Glinskiy,  
RUSSIAN, per, Okeanologicheskiye Issled., No 13, 1965, pp 24-36.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Earth Science & Oceanography (Contd)

Basic Features of Water Structure in the North Pacific Ocean, by N. A. Radzikhovskaya, RUSSIAN, per, Okeanologicheskiye Issled. No 13, 1965, pp 41-46.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Areas of North Pacific Ocean With Uniform Corrections for Sound Velocity, by V. V. Aratskaya, 9 pp.

RUSSIAN, per, Okeanologicheskiye Issledovaniya, No 13, 1965, pp 55-60.  
Dept of Navy tr 5405/NOO tr 290

The Polar Hydrological Front in the Greenland and Norwegian Seas, by A. O. Shpaykher, V. N. Motetskiy, RUSSIAN, per, Okeanologiya, Vol IV, No 2, 1964, pp 267-276.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Magnitude of the Primary Production of the Pacific Ocean, by O. I. Koblenz-Mishke, RUSSIAN, per, Okeanologiya, Vol V, No 2, 1964, pp 325-337.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Determination of Some Parameters of Ocean Bottom Irregularities by Acoustical Methods, by L. A. Volovova and Yu. Yu. Zhitkovskiy, 9 pp. RUSSIAN, per, Okeanologiya, No. 6, 1966, pp. 1080-1085.  
JPRS 40890

Measurements of the Coefficient of Sound Reflection from the Ocean Bottom, by Yu. Yu. Zhitkovskiy and V. I. Volovov, 5 pp. RUSSIAN, per, Okeanologiya, No. 6, 1966, pp. 1086-1088.  
JPRS 40890

Field Logarithmic Photometer for Modulated Radiant Flux Recording, by G. S. Karabashev, RUSSIAN, per, Okeanologiya, Vol VII, No 1, 1967, pp 182-185.

\*Dept of Interior  
Fish and Wildlife Service  
bureau of Commercial Fisheries

Scientific  
Earth Science & Oceanography (Contd)

Organization and Planning of Geodetic and Topographic Operations, by E. N. Teterin, RUSSIAN, bk, Organizatsiya i Planirovaniye Geodezicheskikh i Topograficheskikh Rabot, 1965, 299 pp.  
ACIC TC-1144

Fundamental Theory and Calculation of Ocean Currents, by A. S. Sarkisyan, RUSSIAN, bk, Osnovy Teoriy i Raschet Okeanicheskikh Tekhnii, 1966, 122 pp.  
\*CFSTI TT 67-51428

The Discovery of Pseudosuchia in the Upper Permian of the USSR, by L. P. Tatarinov, RUSSIAN, per, Paleontologicheskii Zhurnal, No 4, 1960, pp 74-80.  
NLL RTS 3859  
ON LOAN ONLY

Pseudosuchians of the USSR, by L. P. Tatarinov, RUSSIAN, per, Paleontol. Zhurnal, No 1, 1961, pp 117-132.  
NLL RTS 3857  
ON LOAN ONLY

Soils of the Kustanai Region, RUSSIAN, bk, Pochvy Kustanayskoi Oblasti, 1966, 416 pp.  
\*CFSTI TT 67-59056

Studies of the Characteristics of Electrical Delay Line for Seismic Exploration Equipment, by A. I. Slutskovskiy, V. Yu. Yunguns, RUSSIAN, per, Prikladnaya Geofizika, No 44, 1965, pp 25-43.  
NLL RTS 3831  
ON LOAN ONLY

Origin and Dynamics of Ocean Waves Studied, by A. Ye. Zubkov, 15 pp. RUSSIAN, per, Priroda, No. 3, Mar 1967, pp. 36-46.  
JPRS 41349

Rare Earth Elements and Their Place in the Periodic System, by D. N. Trifonov, RUSSIAN, bk, Redkosemel'nye Elementy i ikh Mesto v Periodicheskoi Sisteme, 1966, 191 pp.  
\*CFSTI TT 67-59069  
AEC-tr-6875  
UC 4

Scientific  
Earth Science & Oceanography (Contd)

New Successes of Sakhalin Fishing Keklhozez, by A. A. Taranov, RUSSIAN, per, Rybnoe Khoz, Vol XL, No 8, 1964, pp 61-62.

Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

To Master Purse-Seine Fishing, by V. N. Poturayev, RUSSIAN, per, Rybnoe Khoz, No 1, 1965, pp 53-54.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Evaluation of the Forecast of Hydrometeorological Conditions and the Basic Population of Commercial Fishes in the North Atlantic, Northern European Seas, and the Southern Seas of the European USSR for 1965-1966, by G. K. Izhevskiy, M. A. Bogdanov, S. I. Potaychuk, and Ye. V. Solyankin, 5 pp.

RUSSIAN, per, Rybnoye Khozyaystvo, No. 7, 1965, pp. 7-10.  
JPRS 40888

On Forecasting Methods in Saury Fishing, by M. Kundius,

RUSSIAN, per, Rybnoe Khoz, No 11, 1966, pp 17.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Geodesist's Handbook.

RUSSIAN, bk, Spravochnik Geodezista, 1966, pp 231-232; 276-279; 320-325; 351; 352-361; 386-391; 400-411; 412-423; 426-447; 495-496; 504-508; 511-512; 557; 558-590; 591-614; 629; 659-683; 692-699; 725; 785; 786-800; 811; 826; 839-845; 852-863.

\*ACSI J-3008  
ID 2204032567

Some Results of Research and Exploration Cruises in Waters of the Equatorial Atlantic, Nov 1960-Mar 1961, by E. S. Prosvirov,

RUSSIAN, per, Trudy Baltiyskiy Nauchno-Issled Inst Morskogo Rybnoe Khoz i Okeanografii, No 8, 1962, pp 17-23.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Earth Science & Oceanography (Contd)

Cinemizing Synoptic Processes As a Method of Investigation in Synoptic Meteorology, by V. M. Mikhel', 8 pp.

RUSSIAN, per, Trudy Glavnoy Geofizicheskoy Observatoriya imeni A. I. Voyevkova: Voprosy obshchey i sinopticheskoy klimatologii, Issue 198, 1966, pp. 160-167.

JPRS 41405

Calculation of Ice Volume and Hummocks (Using Baffin Sea as Example), by V. P. Khrol.

RUSSIAN, per, Trudy Gosud. Okeanograficheskoy Instituta, Vol 86, 1965, pp 44-74.

\*Dept of Navy/NOO tr 357

Tilting of the Earth's Surface and the Phenomenon of Earthquakes, by V. F. Bonchkovskiy, RUSSIAN, per, Trudy Inst Fiz Zemli AN SSSR, Vol VII, No 174, pp 48-61.

NLL RTS 3757

ON LOAN ONLY

On the Transformation of a Temperature Field Humidity Field, and the Turbulence Characteristics, by Ye. D. Nadezhina.

RUSSIAN, per, Trudy Leningrad. Glavnaya Geofizicheskaya Observatoriya, No 144, 1963, pp 196-201.

FTD-HT-23-1072-67

Structure of the Boundary Layer of the Horizontally Nonhomogeneous Atmosphere, by Z. M. Utina.

RUSSIAN, per, Trudy Leningrad. Glavnaya Geofizicheskaya Observatoriya, No 167, 1965, pp 38-43.

\*FTD-HT-23-1045-67

Wind And Turbulent Exchange Close to Frontal Surfaces, by D. L. Laykhtman, et al.

RUSSIAN, per, Trudy Leningrad. Glavnaya Geofizicheskaya Observatoriya, No 167, 1965, pp 205-210.

\*FTD-HT-23-1045-67

The Principle of Dividing Absolute (Gravimetric) Deviations of Plumb Line into Local and General (Planetary) Tilts, by V. V. Buzuk.

RUSSIAN, per, Trudy Novosibirskogo Instituta Inzhenernoy Geodezii, Aerofoto'yemki i Kartografii, Vol 18, No 1, 1964, pp 9-13.

\*Dept of Navy/NOO tr 356

Scientific  
Earth Science & Oceanography (Contd)

Special Features of Detecting Near-Bottom Fish with the Aid of a Hydrolocator, by K. I. Yudanov, RUSSIAN, per, Trudy VNIRO, Vol LXI, 1966, pp 227-231.  
Dept of Interior  
Fish and Wildlife Service  
Bureau of Commercial Fisheries

New Forms of Ostracods from the Lower Callovian of the South-Western Spurs of the Gissarsk Ridge, by A. S. Nasumov, RUSSIAN, PER, Uzbekskiy Geologicheskii Zhurnal, No 2, 1966, NLL RTS 3896  
ON LOAN ONLY

Sensitivity and Specificity of a Combined Rapid Detection Method for Anthrax Spores in Soil, by A. Tomov, T. Todorov, RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 10, 1966, pp 62-66.  
\*ACSI J-2845  
ID 2204028567

the Main Characteristics of the Geologic Structure of China: Preliminary Conclusions, by T. K. Huang. CHINESE, per, Acta Geologica Sinica, Vol XL, No 1, 1960, pp 1-37.  
\*ACIC TC-1262

Climate of China, by Chu Ping-hai (2612/3521/3189), 629 pp. CHINESE, bk, Chung-kuo Ch'i-hou, Sept 1962, pp. 1-363.  
JPRS 41774

Shallow-Sea Seismic Investigation, by Kuo Kuang-hung (7637 0942 1347), 6 pp. CHINESE, per, Ti-ch'iu Wu-li Hsueh-pao, Vol 9, No 1, Feb 1960, pp. 65-68.  
JPRS 40637

The General Stokes Function and the Functions Derived From it, by Milos Pick. CZECH, per, Prace Geofyzikalniho Ustavu Ceskoslovenske Akademie Ved, No 126-145, 1960, pp 1-34.  
ACIC TC-1151

Scientific  
Earth Science & Oceanography (Contd)

Studies on a Remeasurement of the Precise Leveling Network of Finland, by Lazlo Bendefy. FINNISH, rpt, A Finn Orszagos Felsorendu Szintezesi Halozat Ujrameresenek Tanulsagai, 10 pp.  
\*ACIC TC-1259

Bulletin of the French Cartography Committee, FRENCH, per, Bulletin du Comite Francais de Cartographie, Fascicle, No 30, No 4, 1966, pp 129-130; 132-133; 135-141; 146.  
ACIC TC-1226

New Methods of Celestial Mechanics, Volume II. Methods of Newcomb, Gylden, Lindstedt, and Bohlén, by H. Poincaré, 412 pp. FRENCH, rpt, Les Methodes Nouvelles de la Mecanique Celeste, Tome II. Les Methodes de Newcomb, Gylden, Lindstedt, et Bohlén, 1957. P910154067-V  
NASA TT F-451

The Systems of Soils, Second Part, Chapters 1-5, 7-9, Table of Contents, by P. Duchaufour, FRENCH, bk, Precis de Pedologie, 1965, pp 202-225.  
DIA LN 77-67

Bottom Water and the Distribution of the Deep Water of the Atlantic, by Georg Wust. 146 pp. GERMAN, bk, Das Bodenwasser und die Gliederung der Atlantischen Tiefsee. Wissenschaftliche Ergebnisse der Deutschen Atlantischen Expedition auf dem Forschungs- und Vermessungsschiff "Meteor" 1925-1927, Vol 6, No 1, 1933, pp 1-106.  
Dept of Navy tr 5406/N00 tr 340

Some Remarks on the Formulas for Calculating the Second Derivatives of Gravity, by Bretislav Beranek. HUNGARIAN, per, Magyar Geofizika, 1964, No 3, pp 40-47.  
\*ACIC TC-1258

The Gravity Fields and Artificial Satellites, by Renner Janos, HUNGARIAN, per, Magyar Geofizika, 1964, No 3, pp 48, 49.  
\*ACIC TC-1257

Scientific  
Earth Science & Oceanography (Contd)

Studies on Saline Water Conversion by the Freezing Method (Paper No. IV). Crystallisation of Ice Crystals in Sea Water. 1. Effects of Initial Degree of Supercooling and Stirring Velocity, by Shigetake KAWASAKI, Hideo KOMIZU, Takashi UCHIDA, 26 pp.  
JAPANESE, per, Tokyo Kogyo Shikansho Hokoku, Vol 59, 1964, pp 388-395.  
AEC NP Tr-1414

Diurnal and Annual Distribution of Sunshine in Cracow (1859-1958), by Maria Morawska.  
POLISH, per, Przegląd Geofizyczny, Vol 7(15), No 4, 1962, pp 229-244.  
CFSTI TT 65-50399

Time-Space Temperature Distribution in the Lowest Air Layers Over Water and Soil, by Maria Szumiec.  
POLISH, per, Przegląd Geofizyczny, Vol 8(15), No 3, 1962, pp 157-167.  
CFSTI TT 65-50396

Distribution of the Extreme Temperatures of Different Air Masses Over Warsaw in 1951-1960, by Anna Tomaszewska.  
POLISH, per, Przegląd Geofizyczny, Vol 9(17), No 1, 1964, pp 53-66.  
CFSTI TT 65-50383

Technique of Airplane Observation of Cloud Structure, by Bogumila Jaworska, Edward Strauch, et al.  
POLISH, per, Przegląd Geofizyczny, Vol 9(17), No 2, 1964, pp 157-172.  
CFSTI TT 65-50387

Genetic Foundations of Hydrological Calculations, by Zbigniew Kajetanowicz.  
POLISH, per, Zeszyty Naukowe Politechniki Krakowskiej, No 11, 1962, Budownictwo Wodne No 3.  
CFSTI TT 66-57042

Decision on Planning, Financing and Execution of Geological Work, 27 pp.  
RUMANIAN, per, Buletinul Oficial al Republicii Socialiste Romania, Vol 3, No 23, Part I, 14 Mar 1967, pp. 188-198.  
JPRS 41614

Maps of Magnetic Anomalies  $\Delta Z$  In the Dobruja, Southern Moldavia and Eastern Parts of the Rumanian Plains, by Stefan Airinei.  
RUMANIAN, per, Studii Si Cercetari de Geologie, Vol III, No 1-2, 19-104.  
\*ACIC TC-1260

Scientific  
Earth Science & Oceanography (Contd)

Geophysical Features of the Eastern Carpathian System East and West of the Ceahla Massif.  
by Marius Visarion.  
RUMANIAN, per, Studii Si Cercetari de Geologie, Vol V, 1960, pp 757-773.  
\*ACIC TC-1261

On the Relation Between Variations of the Gravity Potential and Latitude Variations of One Place, by George Stanila.  
RUMANIAN, per, Studii Si Cercetari de Astronomie, Vol IX, 1964, pp 29-31.  
\*ACIC TC-1256

Soils of the Velika Morava and Mlava Basin, SERBO-CROATIAN, bk, Zemljista Basena Velike Morave i Mlave, 1967, 275 pp.  
CFSTI TT 67-58006

Geological Aspects,  
SPANISH, rpt, Aspectos Geograficos del Estado Falcon, 1961, pp 23-37.  
DIA LN 589-66

Hydrography,  
SPANISH, rpt, Aspectos Geograficos del Estado Falcon, 1961, pp 74-86.  
DIA LN 589-66

Electronics & Electrical Engineering

Some Problems in Evaluation of Accuracy of Correlation Functions, by V. V. Imedadze, et al.  
RUSSIAN, per, AN GRUZSSR, Institut Elektroniki, Avtomatiki i Telemekhaniki, Skhemy Avtomaticheskogo Upravleniya, 1965, pp 34-39.  
\*FTD-HT-23-1073-67

Application of Orthogonal Filters for Optimization and Investigation of Statistical Properties of Errors of Self-Adjusting Systems, by G. A. Sergeyev, A. F. Romanenko. 17 pp.  
RUSSIAN, rpt, Analiticheskiye Samonastroyayushchiyesya Sistemy Avtomaticheskogo Upravleniya, 1965, pp 221-232. P100190267  
FTD-MT-66-67

Scientific  
Electronics & Electrical Engineering (Contd)

The Extent and Problems of the Use of Cybernetics in Azerbaydzhan, by T. Aliev, 6 pp.  
RUSSIAN, mp, Bakinskiy Rabochiy, 16 Apr 1967, p. 2.  
JPRS 41072

Alphanumeric Output Unit for a Digital Control Computer, by K. N. Svidler, et al.  
RUSSIAN, per, Byulleten' Tekhniko-ekonomicheskoy Informatsii, No 6, 1966, pp 19-20.  
\*ACSI J-2993  
ID 2204022067

Some Practical Applications of Television Discussed, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No. 18, May 1967, pp. 44-45.  
JPRS 41415

Scientific Technical Conference on the Use of Computer Technology in the Field of Electric Power Engineering, by A. A. Tayts. 16 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, No 8, 1965, pp 87-90. P100195567  
FTD-HT-66-759

First International Transmission of Electric Power At 400 KV Over the Power Networks of Socialist Countries, by V. K. Meshkov, M. Shtetka, S. Sandulesku and I. Przhibl, 10 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, No 4, 1967, pp. 2-6.  
JPRS 41053

Mechanism of Anodic Dissolution and Electrodeposition of Palladium in Chloride Electrolytes, by V. I. Kravtsov, M. I. Zelienskiy, RUSSIAN, per, Elektrokhimiya, Vol II, No 10, 1966, pp 1138-1143.  
NLL 9022.4 (66/393)

Electronic Digital Computers, RUSSIAN, rpt, Elektronnaya Tsifrovaya Vychislitel'naya Mashin, 1966, 11 pp.  
\*FTD-HT-23-971-67

The Synthesis of Wide-Band Phase Inverters, by N. F. Semenyuts. RUSSIAN, per, Elektrosvyaz' i Radiotekhnika, 1964, pp 63-74.  
\*ACSI J-2971  
ID 2204031867

Scientific  
Electronics & Electrical Engineering (Contd)

Developments in Soviet Power Transformer Engineering Outlined, 5 pp.  
RUSSIAN, per, Elektrotehnika, No 3, Mar 1967, pp. 1-2.  
JPRS 40975

Effect of Sorption Water on the Electric Properties of Organic Dielectrics, by N. A. Rodionova, RUSSIAN, per, Fiz Dielektriov, Sb, 1960, pp 194-202.  
ATS RJ-4737

Electrical Shielding of Closed Circuit for Solenoid by P. Ya. Burchenko, Ye. D. Volkov, RUSSIAN, per, Fiziko-Tekhnicheskii institut, Khar'ko AN USSR, 1966, 6 pp.  
\*FTD MT 24-85-67

Thermoelectric Parameter Measurement Technique, by Ya. Agayev and A. R. Mikhaylov, 7 pp.  
RUSSIAN, per, Geliotekhnika, No 6, 1966, pp. 41-46.  
JPRS 41144

Hydroelectric Stations on the Dnepr River, by E. A. Baksheev, T. P. Dotsenko and G. D. Kadomskiy, 14 pp.  
RUSSIAN, per, Gidrotekhnicheskoye Stroitel'stvo, No 5, May 1967, pp. 3-13.  
JPRS 41628

Conversion of Microsecond Time Intervals into Digital Code, by Ye. I. Rekhin, V. M. Lyaporov. RUSSIAN, rpt, Gosudarstvennyy Komitet po Ispol'zovaniyu Atomnoy Energii, Doklady SSSR, No 99, 1964, 19 pp.  
\*FTD MT 24-104-67

Studies of Powerful High Frequency Generator on Plasma Load, by N. A. Borzunov, S. M. Osovets, et al. RUSSIAN, rpt, Institut Atomnoy Energii Im I. V. Kurchatova, Moskva SSSR, 1966, 11 pp.  
\*FTD MT 24-89-67

Rapid Growing of Lattice of Plasma in Areas of Soft Roentgens and Ultraviolet, by M. I. Pergament, A. I. Yaroslavskiy. RUSSIAN, per, Institut Atomnoy Energii Im I. V. Kurchatova, Moskva SSSR, 1966, 12 pp.  
\*FTD MT 24-86-67



Scientific  
Electronics & Electrical Engineering (Contd)

Rapidly Activated Lens-Type Electrodynamic Valve for Peripheral Gases by N. V. Filippov, L. G. Golubchikov, et al.  
RUSSIAN, rpt, Institut Atomnoy Energii im I. V. Kurchatova, Moskva SSSR, 1966, 15 pp.  
\*FTD MT 24-87-67

Magnetic Channel, by A. L. Bezbatchenko, E. I. Sadovskiy.  
RUSSIAN, per, Institut Atomnoy Energii im I. V. Kurchatova, Moskva SSSR 1966, 15 pp.  
\*FTD MT 24-91-67

Power Sources of the High Voltage Feedoof Injectors and Questions on Stabilization of Voltage by R. P. Vasil'yev, O. N. Kachalov, RUSSIAN, rpt, Institut Atomnoy Energii im I. V. Kurchatova Moskva SSSR, 1966, 24 pp.  
\*FTD MT 24-90-67

Hall Effect in Channel With Sectionalized Electrodes, by I. M. Tolmach, N. N. Yasnitskaya, 27 pp.  
RUSSIAN, per, Izvestiya. AN SSSR. Energetika i Transport No 5, 1965, pp 91-104. P100187867  
FTD-MT-66-49

Concerning Multiplier Klystrons with Traveling Wave by A. D. Sushkov.  
RUSSIAN, per, Iz Leningrad Elektrotekhnicheskii Institut, No 48, 1963, pp 66-75.  
\*FTD MT 67-16

Increasing the Speed of Operation of Some Automatic Control Systems, by N. Kh. Shatskiy.  
RUSSIAN, per, Iz VUZ Elektromekhanika, No 7, 1965, pp 683-790.  
\*FTD MT 67-59

New Circuits for Frequency Dividers With Variable Coefficient, by A. P. Zaitsev, A. I. Zaitsev.  
RUSSIAN, per, Iz Vysch Ucheb Zaved, Elek, No 2, 1964, pp 239-242.  
Dept of Navy 5441/APL/JHU T-2017

The Theory of Optimal Coding of Information, by R. L. Dobrushin, 42 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 13-45.  
JPRS 41633

Scientific  
Electronics & Electrical Engineering (Contd)

Conditions of Invariance in a Decoding Procedure, by L. F. Borodin, 26 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 46-65.  
JPRS 41633

One Class of Codes With Correction of Independent Errors and Independent Groups of Errors Capable of Simple Realisation, by Ye. T. Mironchikov and V. D. Kolesnik, 10 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 66-73.  
JPRS 41633

The Average Length of a Code With Minimal Redundancy, by S. S. Kinalitsyn, 10 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 74-80.  
JPRS 41633

The Synthesis of Logic Circuits Transforming Information To a Hamming Code, by A. D. Zadrevskiy, 7 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 81-86.  
JPRS 41633

The Relation Between the Theory of Correcting Codes and Problems of Self-Teaching and Reliability, by A. N. Radchenko, 36 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 87-114.  
JPRS 41633

The Information Limit of Redundancy Necessary for Correction of Errors, by S. I. Samoylenko, 12 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 115-123.  
JPRS 41633

Limiting Values of Redundancy in Correcting Codes, by S. I. Samoylenko, 12 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika. Semiotika, Vol 3, pp. 124-33.  
JPRS 41633

Scientific  
Electronics & Electrical Engineering (Contd)

Problems of Linear Encoding of a Moving Image,  
by B. S. Tsymbakov, 18 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 134-148.  
JPRS 41633

The Problem of Linear Programming for a Group  
of Permutations and Its Application in  
Optimization of Codes, by A. V. Krushevskiy,  
8 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 149-154.  
JPRS 41633

The Entropy of Sources of Visual Messages, by  
A. B. Levit, 20 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 155-170.  
JPRS 41633

Some Trends in the Development of Algorithmic  
Structures of Computers, by V. M. Glushkov and  
Z. L. Rabinovich, 14 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 173-182.  
JPRS 41633

Construction of Matrix Type Logic Systems in  
Digital Computers, by L. A. Orlov, 19 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 183-197.  
JPRS 41633

Diode Logic Elements Based on Printed Bands  
Operating in SHF Range, by V. A. Beruashvili,  
et al., 10 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 198-205.  
JPRS 41633

Counters in Grey Code, by M. V. Chkheidze, et al.,  
11 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 206-214.  
JPRS 41633

Scientific  
Electronics & Electrical Engineering (Contd)

Comparison of Numbers Represented in Grey Code,  
by M. V. Chkheidze, et al., 12 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 215-223.  
JPRS 41633

Elements of Computer Machines Based on Tunnel  
Diodes, by V. A. Beruashvili and O. A.  
Elisbarashvili, 10 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 224-231.  
JPRS 41633

Voltage-Code Fiber Optics Converter, by M. V.  
Chkheidze, et al., 5 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 232-235.  
JPRS 41633

Converter for Transforming Continuous Quantities  
to Discrete Quantities, by M. V. Chkheidze, et al.,  
12 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 236-245.  
JPRS 41633

Arithmetic Operations in Binary Cyclical Code,  
by M. V. Chkheidze, 13 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 246-257.  
JPRS 41633

The Problem of Defining the Basic Concepts of  
Semiotics, by Yu. A. Shreyder, 18 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 261-274.  
JPRS 41633

Attempt at Semantic Interpretation of the  
Statistical Concepts of Information and Entropy,  
by Ye. K. Voyshvillo, 26 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu.  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 275-293.  
JPRS 41633

Scientific  
Electronics & Electrical Engineering (Contd)

Cybernetics and Certain Problems of Modern Linguistics, by I. A. Mel'chuk and R. M. Frumkina, 11 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika, Semiotika, Vol 3, 294-302.  
JPRS 41633

Principles of Distributive Analysis of Verb Affixation, by V. V. Martynov, P. P. Shuba and M. I. Yarmosh, 9 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu. Teoriya Informatsii, Vychislitel'naya Tekhnika, Semiotika, Vol 3, 303-310.  
JPRS 41633

The Application of Computer Technique for the Automation of Selective Make-up, by G. V. Butkevich, M. G. Chilikin, M. A. Bonch-Osmolovskiy and V. F. Nabatov, 5 pp.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, Vol. 21, No. 2, 1967, pp. 49-50.  
JPRS 41020

Information Losses and Information Noise in Descriptor IRS and In a UDC-Systematized Card Catalog, by A. V. Sokolov, 12 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 20-23.  
FTD TT 65-1882

Toward a History of the Development of Punched Cards for Manual Sorting, by K. B. Gel'man-Vinogradov, 6 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 24-25.  
FTD TT 65-1882

First Conference on Mechanization of Information and Library Operations in the Lithuanian SSR, by A. Yu. Kantaleris, 5 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 26.  
FTD TT 65-1882

Overlay Cards and Their Areas of Application, by V. F. Kalinin, 13 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 30-34.  
FTD TT 65-1882

Scientific  
Electronics & Electrical Engineering (Contd)

A First Model of a Grammar of Valences for the Syntactical Analysis of a Chinese Scientific Text, by T. N. Nikitina, 16 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 39-43.  
FTD TT 65-1882

The Use of Electrography in the "Metalexport" Foreign Trade Organization, by A. Mazurek, 11 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya, No 9, 1964, pp 44-47.  
FTD TT 65-1882

Experimental Use of a Card with Edge Perforations in Nomenclature Work, by V. Moravtsova, RUSSIAN, per, Nauch Tech Inform, No 12, 1965, pp 22.  
NLL RTS 3752  
On Loan Only

The Reliability of Complex Technical Systems, 328 pp.  
RUSSIAN, bk, O Nadezhnosti Slozhnykh Tekhnicheskikh Sistem, 1966, pp. 1-324.  
JPRS 41634

A Non-Selective Optico-Acoustic Receiver With an Optical Microphone, by N. A. Pankratov.  
RUSSIAN, per, Optiko-Mekhanicheskaya Promyshlennost', No 1, 1960, pp 37-48.  
\*FTD-MT-67-62

Electrochemical Current Sources and Their Potentials, by L. Pen'kova, et al.  
RUSSIAN, Paano, No 10, 1966, pp 45-48.  
\*ACSI J-2951  
ID 2204031367

Automatic Control Systems -- A Necessary Condition for Technical Progress, by K. N. Rudnev, RUSSIAN, per, Pribory i Sistemy Upravleniya, No. 1, Jan 1967, pp. 1-2.  
JPRS 41020

Analysis of Important Problems in the Introduction of Computer Engineering, by V. I. Loskutov, 6 pp.  
RUSSIAN, per, Pribory i Sistemy Upravleniya, No. 1, Jan 1967, pp. 24-25.  
JPRS 41020

Scientific  
Electronics & Electrical Engineering (Contd)

Realization of a Boolean Function of n Variable by Means of a Network of Threshold Elements with n Inputs, by Ye. A. Butakov, 19 pp.  
RUSSIAN, per, Problemy Peredachi Informatsii, Vol I, No 1, 1965, pp 41-51.  
FTD HT 66-297

On the Complexity of Decoding, by M. S. Pinsker, 8 pp.  
RUSSIAN, per, Problemy Peredachi Informatsii, Vol I, No 1, 1965, pp 113-116.  
FTD HT 66-297

Cyclic Codes Correcting Uniform Error Packets, by Yu. L. Sagalovich, 6 pp.  
RUSSIAN, per, Problemy Peredachi Informatsii, Vol I, No 1, 1965, pp 117-121.  
FTD HT 66-297

Radioelectronic Apparatuses for Time Analysis of Reflexes by O. Ya. Bokser, M. I. Klevtsov.  
RUSSIAN, mono, Radioelektronnaya Apparatura dlya Vremennogo Analiza Refleksov, 1964, 63 pp.  
\*FTD MT 66-133

On the Passage of Low Frequency Electromagnetic Waves Through the Ionospheric Plasma, by V. I. Aksenov,  
RUSSIAN, per, Radiotekhnika i Elektronika, Vol XI, No 6, 1966, pp 1030-1036.  
Sci Tech Info Facility  
ST-RWP-AI-10633

On the Mechanism of Long-Range Tropospheric Radiowave Propagation, by F. B. Chernyi,  
RUSSIAN, per, Radiotekhnika i Elektronika, Vol XII, No 2, 1967, pp 338-340.  
\*Dept of Navy/ APL/JHU J-1018

Electric Instrumentation in High-Energy Physics, 169 pp.  
RUSSIAN, per, Sbornik Statei, No 1, 1963, pp 3-202.  
AEC Tr-6636

Discretely Controlled Analog Memory, by J. Bartos.  
RUSSIAN, per, Slovenska Akademia Vied, Ustav Mechaniky a Automatizacie, Vyskumne Problemy Technickej Kybernetiky, 1965, pp 21-32.  
\*FTD-HT-23-1084-67

Scientific  
Electronics & Electrical Engineering (Contd)

Iterative Method of Solution and the System of Time Sharing on Analog Computers, by I. Plander.  
RUSSIAN, per, Slovenska Akademia Vied, Ustav Mechaniky a Automatizacie, Vyskumne Problemy Technickej Kybernetiky a Mechaniky, 1965, pp 120-134.  
\*FTD-HT-23-1081-67

On the Class of Automatic Control Systems Invariant With Respect to Variation of Parameters, by A. I. Kukhtenko, A. G. Shevelev.  
RUSSIAN, rpt, Slozhnyye Sistemy AN UkrSSR Upravleniya, 1965, pp 98-112.  
\*FTD HT 883-67

Synthesis of Nonredundant Series-Parallel Structures by the Combinatorial Method by V. R. Gorovoy.  
RUSSIAN, per, Tekhnicheskaya Kibernetika AN SSSR Institut Avtomatiki i Telemekhaniki, 1965, ppp 368-372.  
\*FTD HT 23-912-67

Algorithmic Device for MEchanical Translation From Russian into Georgian, by L. Margvelani, 10 pp.  
RUSSIAN, per, Trudy AN GRUZSSR. Institut Elektroniki, Avtomatiki i Telemekhaniki, No 4, 1963, pp 3-9. P100201267  
FTD-HT-66-413

High-Speed Extremal Regulator Based on Random-search Method, by L. A. Rastrigin, L. V. Sytenko.  
RUSSIAN, per, Trudy Institut Elektroniki i Vychislitel'noy Tekhniki AN LatSSR, Vol V, No 6, 1963, pp 237-255.  
\*FTD MT 24-94-67

Contactless Relays Designed with Tunnel Diodes and Transistors, by I. Ya. Bilinskiy, P. P. Treys.  
RUSSIAN, per, Trudy Institut Elektroniki i Vychislitel'noy Tekhniki AN LatSSR, 1964, No 6, pp 255-263.  
\*FTD MT 67-5

Estimate of the Reliability of Constant Redundancy Circuits Taking into Account the Possibility That a System Parameter may go Beyond the Limits of Tolerance, by A. M. Margulis.  
RUSSIAN, per, Trudy Institut Elektroniki i Vychislitel'noy Tekhniki Avtomatika i Vychislitel'nayatekhnika AN LatSSR, No 11, 1965, pp 199-214.  
\*FTD HT 23-998-67

Scientific  
Electronics & Electrical Engineering (Contd)

Determining Computer Reliability, by  
I. M. Malikov, A. N. Rokhmistrov.  
RUSSIAN, per, Trudy Leningrad Inzhenerno-  
Ekonomicheskoy Institut, No 55, 1965,  
pp 55-79.  
\*FTD MT 67-13

A Universal Programming Language (ALGOL 60),  
by S. S. Lavrov. 180 pp.  
RUSSIAN, bk, Universal'nyy Yazyk Programirovaniya  
(ALGOL 60), 1964, pp 1-171.  
FTD-HT-66-382

Design of Axisymmetric Nozzles Taking into  
Account Equilibrium Physical-Chemical  
Transformations by U. G. Pirumov,  
V. A. Rubtsov, et al.  
RUSSIAN, per, Vychislitel'nyy Tsentri Sbornik Rabot  
Moskva Universitet, No 2, 1963, pp 48-60.  
\*FTD MT 67-29

Calculation of Elementary Functions with the  
"Setun" Computer, by Ye. A. Zhogolev.  
RUSSIAN, per, Vychislitel'nyy Tsentri Sbornik  
Rabot Moskva Universitet, No 3, 1965,  
pp 509-535.  
\*FTD MT 66-164

Electron Commutator, by V. S. Zhernov,  
Ye. P. Murashov, et al. 14 pp.  
RUSSIAN, per, Yadernoye Priborostroyeniye.  
Nauchno-Tekhnicheskoy Sbornik, No 1, 1964,  
pp 139-150. P100201167  
FTD-HT-66-415

Electron Gas in a Magnetic Field, by  
Ye. M. Lifshits,  
RUSSIAN, per, Zh. Eksper. Teor. Fiz., Vol VII,  
1937, pp 390-400.  
NASA TT F-479

About High-Frequency Oscillations of Electronic  
Plasma, by A. I. Akhiezer, Ya. B. Faynberg.  
13 pp.  
RUSSIAN, per, Zhurnal Eksperimental'noy i Teo-  
reticheskoy Fiziki, Vol 21, No 11, 1951,  
pp 1262-1269. P100200767  
FTD-HT-66-494

Permanent Memory, by V. V. Antonov, et al.  
RUSSIAN, Patent, 174,838  
\*FTD-HT-23-1083-67

Scientific  
Electronics & Electrical Engineering (Contd)

Key-Actuated Device for Setting and  
Automatic Decoding of Information, by  
P. M. Baranenko, G. A. Petrov, et al.  
RUSSIAN, Patent 177173, 5 Oct 64, pp 1-2.  
\*FTD HT 23-948-67

Memory Device, by S. I. Kreynin, et al.  
RUSSIAN, Patent 184,935 Class 21.  
\*FTD-HT-23-1082-67

Radar Warning System, by Yin Jui, 8 pp.  
CHINESE, per, Hang K'ung Chih Shih, No 12,  
1964, pp 9-11. P100184567  
FTD HT 66-164

A Simple Method for the Measurement of Power  
Spectra and Autocorrelation Functions Based on  
the Fourier Transform.  
CHINESE, per, Sheng-hsueh Hsueh-pao (Acta  
Acustica Sinica), Vol 2, No 4, pp 176-179.  
\*Dept of Navy ONI

Limiting Information Content of Television Signal,  
by Chiung-pan Chou. 24 pp.  
CHINESE, per, Tien Tzu Hsueh Pao, No 4, 1964,  
pp 24-39. P100189367  
FTD-HT-66-592

Parametric Amplifier, by Wu Wu, 8 pp.  
CHINESE, per, Wu Hsien Tien, No 12, 1964,  
pp 1-2. P100184367  
FTD HT 66-425

Discussion on the Use of Computers, by Zd.  
Skoda and M. Svehla, 14 pp.  
CZECH, per, Hospodarake Noviny, No 13, 31 Mar  
1967, pp. 8-9.  
JPRS 41060

Fuze with Centrifugal Body, 7 pp  
DANISH, Patent No 62,834  
Dept of Commerce  
Patent Office

Contribution to the Study of the Triplet State  
of Dyes: Absorption Spectra in the Range of Long  
Wave-Lengths, Red and Near Infrared, by  
R. Lochet, G. Mouchi,  
FRENCH, per, Compt Rend, Vol CCLX, 1965,  
pp 1897-1900.  
ATS 1198-FV

Scientific  
Electronics & Electrical Engineering (Contd)

Low Frequency Long Distance Transmission and Modulation Equipment NTZ, Part II.  
GERMAN, per, Nachrichtentechnik, Vol 15, No 7, 1965, pp 276-279. P100105767  
FTD-HT-66-457

Studies of Transit Time in Photomultipliers, by H. F. Reimann.  
GERMAN, per, Nachrichtentechnik, No 11, 1965, pp 422-432.  
\*FTD-HT-23-1042-67

Quantization Noise in Analog-to-Digital Converters for Pulse-Code-Modulation, by R. Strietzel.  
GERMAN, per, Nachrichtentechnik, No 12, 1965, pp 484-487.  
\*FTD HT 23-1016-67

Light-Sensitive, Space Charge-Limited Currents, by W. Helfrich,  
GERMAN, per, Phys Stat Sol, Vol VII, 1964, pp 863-868.  
ATS 1192 GJ

Thin Metal Films and Their Use in Film Type Resistors, by E. Schippel. 11 pp.  
GERMAN, per, Silikattechnik, Vol 15, No 3, 1964, pp 83-85. P100189567  
FTD-HT-66-419

Production of Contact Screens with Improved Tone Rendering, by F. Buzas, et al,  
HUNGARIAN, per, Evkonyv Nyomdaipari Troszt Technologiai Fejlesztési Lab, 1966, pp 57-101.  
ATS HJ-4738

Preparation of Modern Screen Positives, by F. Buzas, et al,  
HUNGARIAN, per, Evkonyv Nyomdaipari Troszt Technologiai Fejlesztési Lab, 1966, pp 104-114.  
ATS HJ-4739

The Sensitivity Measurement and Maintenance of the Facsimile-receiving Apparatus, by S. Umesono,  
JAPANESE, per, Bulletin of the Faculty of Fisheries Nagasaki University, No 22, Mar 1967, pp 109-114.  
\*DEpt of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Electronics & Electrical Engineering (Contd)

Radiometric Survey With a Car-Mounted Instrument in the Eastern Part of Aichi Prefecture, by Yoshio HORTAKAWA, Nakamaru OBI, 30 pp.  
JAPANESE, per, Bull. Geol. Survey Japan, Vol 16, No 3, 1966, pp 148-160.  
AEC NSJ Tr-71

Approximation of the Transfer Characteristics of the Parallel-T RC Network, by M. Higashiguchi,  
JAPANESE, per, Denki Tsushin Gakkai Zasshi, Vol XL, 1957, pp 541-546.  
NLL 5207 (1193)

Sequential Delay Sampling Time Analyzer, by Hirotaka SASAKI, 12 pp.  
JAPANESE, per, Oyo Buturi, Vol 35, No 1, 1966, pp 34-40. P911222467  
AEC NSJ Tr-79

Transmission System Between the Power Stations in Dobrotvorakaya (USSR) and Zamosc (Poland), by Ibrahim Szapiro and Jerzy Majewski, 12 pp.  
POLISH, per, Energetyka, Vol XXI, No 4, Apr 1967, pp. 110-114.  
JPRS 41629

The Possibilities of Applying the Laser Technique in Experiments on Exploding Wires, by Waldemar Soszka, 27 pp.  
POLISH, per, Postepy Fizyki, Vol 17, 1966, pp 403-419. P911225667  
AEC IA Tr-66-78

Small Dimension He-Ne Laser, by Welinski, et al.  
POLISH, per, Przegląd Elektroniki, No 1, 1967, pp 1-5.  
\*FTD-HT-23-1026-67

Electric Power Situation, by Wiesław Szynkler-Głowacki, 8 pp.  
POLISH, per, Zycie Gospodarcze, No. 15, 9 Apr 1967, pp. 1 & 6.  
JPRS 40941

Radiovision in Paris, 6 pp.  
SPANISH, per, Radiovision, Revista Technica Mensual, No 34, Jan 1967, pp 25-31.  
DIA LN 255-67

Scientific  
Electronics & Electrical Engineering (Contd)

The Laboratory for Testing Electric Machinery  
At the Faculty of Electrical Engineering in  
Sarajevo, 6 pp.  
SERBO-CROATIAN, per, Tehnika, No. 5, May 1967,  
pp. 854-856.  
JPRS 41528

Electrical Properties of  $\text{Pr}_2\text{Se}_3$  and  $\text{Nd}_2\text{Se}_3$ , by  
G. V. Lashkar'ov, Yu. B. Paderno,  
UKRAINIAN, per, Ukr Fiz Zk, Vol X, No 5, 1965,  
pp 566-568.  
ATS UJ-4729

Energy Conversion (Non-propulsive)

Integral Short-Circuit Current of Solar Cells  
From Their Spectral Characteristics, by M. M.  
Koltun, T. M. Golovner, and M. N. Kholeva,  
6 pp.  
RUSSIAN, per, Galiotekhnika, No 6, 1966, pp.  
3-7.  
JPRS 41144

Preliminary Results of Experimental Tests of  
Thermoelectric Solar Converters, by V. A.  
Korobov, O. A. Neveshin and Ye. M. Turin,  
5 pp.  
RUSSIAN, per, Galiotekhnika, No 6, 1966, pp.  
8-11.  
JPRS 41144

Axisymmetrical Linear Magneto-Gas-Dynamic Flow  
With the Hall Effect in a Two-Component Magnetic  
Field, by A. I. Bertinov, et al.  
RUSSIAN, per, Izvestiya, AN SSSR, Energetika i  
Transport, Vol 6, 1965, pp 102-119.  
\*FTD-MT-67-39

Results of Laboratory Tests of a 3500 hp Gas  
Turbine Engine.  
RUSSIAN, per, Tiudy Moskva, Vsesoyuznyy Nauchno-  
issled. Inst. Zheleznodorozhnogo Transporta,  
No 282, 1964, pp 48-59.  
\*FTD-HT-23-1030-67

Radiometric Methods of Measurement of Clearances  
Inside Operating Turbines, by M. Navratil.  
CZECH, per, Strojirenstvi, Vol 14, No 12, 1964,  
pp 937-944.  
\*FTD-HT-23-1046-67

Scientific  
Energy Conversion (Non-propulsive) (Contd)

Studies in Voltage Fuel Cells, by I. Taitelbaum,  
GERMAN, per, Zeit. Elektrochem, Vol XVI, 1910,  
pp 286-300.  
NASA TT F-10,940

Materials

Some Problems Related to the Application of Automatic  
Hard Facing of Rolls, by V. K. Petrichenko.  
RUSSIAN, per, Avtom. Svarka, No. 6, 1955, pp 74-84.  
BISI 5171

Certain Features in the Electro-Slag Melting of  
Consumable Electrodes of Large Cross-Section, by Yu.  
V. Latash  
RUSSIAN, per, Avtom. Svarka, 1958, No 6, pp 76-83  
\* BISI 5659

Effect of Slag Composition on the Melting of a  
Large Cross-Section Electrode by the Electro-Slag  
Process, by Yu. V. Latash, G. Tyagun-Belous  
RUSSIAN, per, Avtom. Svarka, 1958, No 12, pp 17-27  
\* BISI 5660

Improvement in Efficiency of Electric Furnaces, by  
A.G. Loginov,  
RUSSIAN, per, Byulleten Tekhniko-Ekonomicheskoi Inform-  
atsii, 1966, No 8, pp 8-9  
\* BISI 5688

Effect of Cyclic Contact Stress on Certain Characterist-  
ics of the Grain Structure of AISI E52100 Ball Bearing  
Steel, by T. M. Golovins'ka  
RUSSIAN, per, Dopovidi Akad. Nauk UKRSR, Oct. 1966,  
No 10, pp 1284-87  
HB No 7202

Effect of Iron on the Phase Composition, Structure  
and Properties of Heat-Resistant Nickel-Chromium-  
Tungsten Alloys, by T. P. Saikova, et al.  
RUSSIAN, per, Fazovyi Sostav, Struktura i Svoistva  
Legirovannykh Stal i Splavov, 1965, pp 55-62.  
\*FTD-HT-23-1062-67

Oil Presence in the South Baltic Ordovician,  
by A. I. Vais,  
RUSSIAN, per, Geolog i Neft Pal Ush Pribaltiki,  
Vol I, No 11, 1965, pp 143-151, 162-167.  
NLL RTS 3799  
ON loan Only

Scientific  
Materials (Contd)

Investigation of the Distribution of Admixtures in a Turbulent Flow of a Liquid-Metal Coolant, by M. N. Ivanovskiy, Yu. I. Orlov, V. I. Subbotin, 11 pp.  
RUSSIAN, ryb, IAEA, International Atomic Energy Agency Symposium on "Alkali Metal Coolants - Corrosion Studies and System Operating Experience" Held at Vienna on Nov 28-2 Dec 1966. Paper No SM-85/52.  
F911222067  
AEC ANL Tr-425

Axisymmetric Problems of a Circular Cylindrical Shell Made of Material With Different Strength in Tension and Compression.  
RUSSIAN, per, Izvestiya AN SSSR. Mekhanika i Mashinostroyeniye, No 4, 1965, pp 77-85.  
\*FTD-HT-23-1055-67

Extraction of Cobalt from Nickel Chloride Solutions Using Various Classes of Solvents, by L. M. Gindin, I. M. Ivanov, et al,  
RUSSIAN, per, Izv Sib Otdel AN khim Nauk, No 1, 1966, pp 134-136.  
NLL RTS 3827  
On Loan Only

The State of Molten Metals on the Basis of Acoustical Data, by L. A. Pronin, S. I. Filippov.  
RUSSIAN, per, Izv. VUZ Chern Met., No 5, 1963, pp 10-18.  
\*BISI 5674

Rapid Control of Metallic Iron Content in Metallized Ores, by Yu. S. Yusfin, et al.  
RUSSIAN, per, Izv. VUZ Chern Met., No 11, 1965, pp 180-182.  
BISI 5322

Mechanism of Nodulizing Coarse Sinter Mixes, by V. I. Korotich.  
RUSSIAN, per, Izvest. VUZ Chern Met., Vol 9, No 3, 1966, pp 22-26.  
HB No 6855

Bonding Processes in the Nodulization of Sintering Mixes with the Addition of Fuel Oil, by D. A. Kovalev, E. I. Sulimenko.  
RUSSIAN, per, Izvest. VUZ Chern Met., Vol 9, No 8, 1966, pp 38-41.  
HB No 6969

Scientific  
Materials (Contd)

Ways of Countering the Harmful Effect of Phosphorus on the Properties of Cast 13% Mn Steel, by N. G. Davydov, A. M. Bigeyev,  
RUSSIAN, per, Izv VUZ Chern Met, 1966, No 8, pp 63-66.  
HB No 6970

Kinetics of the Oxidation of Carbon During Oxygen Blowing of a High Chromium Bath, by A.E. Kogan A. M. Levin.  
RUSSIAN, per, Izv. VUZ Chern. Met, Aug 1966, pp 67-75  
BISI 5439

Mechanism of Breakdown of the Blast-Furnace Hearth Pad, by Ya. D. Verbitskii  
RUSSIAN, per, Izvest. VUZ. Chern Met., Sept. 1966, No 9, pp 36-38  
HB No 6982

Vacuum Treatment of Large Amounts of Transformer Steel, by I. M. Zuev et al  
RUSSIAN, per, Izvest. VUZ Chern met., 1966, No 9, pp 39-45  
HB No 7064

The Amount and Composition of the Dust Produced While Melting Steel in the Basic Electric Furnace, by V. T. Lutsenko, P. V. Umrikhin,  
RUSSIAN, per, Izv VUZ Chern Met, No 1, 1967, pp 69-73.  
HR 7089

Characteristics of the Fine Fractions of Blast-Furnace Burden Materials and Flue-Dust Mists, by V. E. Levchenko  
RUSSIAN, per, Izvest. VUZ-Chern Met., Feb 1967, No 2, pp 32-35  
HB No 7157

On the Variation in the Rate of Heat Transfer Over the Length of a Continuous Casting Mold, by A. D. Akimenko  
RUSSIAN, per, Izvest. VUZ Chern Met., Feb 1967, No 2, pp 45-49  
HB No 7155

Effect of Heat Treatment Under Ultrasound on the Formation of Carbides in the Tempering of Quenched 1.20% Carbon Tool Steel, by E. G. Aizenson, A. E. Uvarov  
RUSSIAN, per, Izvest. VUZ Chern Met., Vol 10, 1967, No 2, pp 128-130  
HB No 7159



**Scientific  
Materials (Contd)**

Saturation of Steels with Hydrogen at High Temperatures and Pressures, by Yu. I. Archakov. RUSSIAN, per, Izvest. VUZ Chern Met., No 3, March 1967, pp 122-126.  
HB No 7213

Behaviour of Nitrogen During Melting of the Charge in a Arc Furnace Making Low Carbon Steel, by A. I. Kholodov  
RUSSIAN, per, Izv VUZ Chern Met., Apr. 1967, pp 50-54  
\* BISI 5721

Investigation of the Bending Resistance of Rolls in a Four-High Stand, by V. P. Polukhin, et al.  
RUSSIAN, per, Izv. VUZ Chern Met., No 4, 1967, pp 79-83.  
\*BISI 5696

Saturation of Steels With Hydrogen at Increased Temperature and High Pressures, by Yu. I. Archakov, RUSSIAN, per, Izv. VUZ Chern. Met., Mar. 1967, pp 122-126.  
\*HB 7199

Influence of Hot Work Hardening Conditions on the High Temperature Properties of Kh18N10T Steel, by M. M. Shteinberg, G. A. Trifonov.  
RUSSIAN, per, Izv. VUZ Chern Met., Apr. 1967, pp 120-123.  
\*BISI 5722

Properties of Combination Coatings at High Temperature, by Yu. V. Grdina, A. F. Sofrosenko  
RUSSIAN, per, Izv. VUZ Chern. Met., Apr. 1967, pp 128-132  
\* HB 7199

Self Diffusion of Niobium in Some of its Alloys With Molybdenum, by P. V. Gel'd, et al.  
RUSSIAN, Izv. VUZ. Tsvetnaya Metallurgiya, No 2, 1966, pp 135-141.  
\*FTD-HT-23-1064-67

The Role of Melts in the Chlorination Process of Metallic Oxides, by S. A. Amirova, V. V. Pechkovskiy, et al.  
RUSSIAN, per, Izv VUZ Tsvet Metall, Vol IX, No 1, 1966, pp 62-65.  
NLL RTS 3834  
On Loan Only

**Scientific  
Materials (Contd)**

Rules Governing Failure of Copper Alloys under Microimpact Action, by T. M. Petukhova and D. P. Rodionov, 9 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy -- Tsvetnaya Metallurgiya, No. 4, Apr 1966, pp. 105-110.  
JPRS 41517

Cold Brittleness and Limiting Plasticity of Metals in Ship Building, by Ye. M. Shevandin.  
RUSSIAN, bk, Khladnolomkost' i Predel'naya Plastichnost' Metallov v Sudostroyenii, 1965, pp 1-336.  
\*JPRS/DC-15301

Investigation of Technological Lubricants for the Hot Extrusion of Steel, by Yu. F. Chernyi, et al  
RUSSIAN, per, Kuzn. ShTamp. Proizvodstvo, Vol 8, 1966, No 4, pp 11-13  
HB No 7222

Evaluation of the Effectiveness of Lubricants in Upsetting on Mechanical Presses, by V. I. Kazachenok, G. P. Uglanov,  
RUSSIAN, per, Kuzn. ShTamp. Proizvodstvo, Vol 8, 1966, No 1, pp 11-14  
HB No 7224

Low-Temperature Extrusion of Refractory Metals, by L. N. Moguchin,  
RUSSIAN, per, Kuzn-ShTamp Proizvodstvo, Vol 9, 1967 No 1, pp 11-13  
HB No 7223

Investigation of the Effect of Various Technological Factors and Temperature on the Antifriction Properties of Solid Lubrication Coating Based on Molybdenum Disulfide, by R. M. Matveyevskiy.  
RUSSIAN, per, Mashinovedeniye, No 2, 1966, pp 86-90.  
\*FTD-HT-23-1063-67

The Role of the Scheduled Dispatcher Service in the Supply Operations, by G. Vodnev, 10 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, pp. 5-14.  
JPRS 41340

Interrayon Warehouse Deliveries of Metal Products, by V. Lyublin, 6 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 30-34.  
JPRS 41340

**Scientific  
Materials (Contd)**

Influence of High Temperatures on the Strength of Solidified Resins and Materials Based on Resins. 2. Effect of High Temperatures on the Strength of Solidified Resins Containing a Heteroatom in the Composition of the Rings, by Ye. B. Trostyanskaya, et al, RUSSIAN, per, Mekh. Polimerov, No 5, 1966, pp 746-754.  
NASA TT F-10,934

Theory of Multimodulus Elasticity, by S. A. Ambartsumyan, A. A. Khachatryan, RUSSIAN, per, Mekh. Tverdogo Tela, No 6, 1966, pp 64-67.  
\*NASA TT F-10,986

Nitridation of Chromized Steel, A New Surface Treatment, by Yu. N. Griboedov, B. I. Yunts. RUSSIAN, per, Metallovedenie i Term. Obrab. Metallov, No 3, 1967, pp 23-26.  
HB No 7186

Features of the Diffusion Processes in Technical Iron During Ultrasonic Welding, by S. K. Ginzburg, Yu. G. Nosov. RUSSIAN, per, Metallovedenie i Term. Obrab. Metallov, No 4, April 1967, pp 59-60.  
HB No 7195

An Increase in the Stability of an Emulsion for the Cold Rolling of Sheet Steel, by A. T. Slyusarev. RUSSIAN, per, Metallurg, 1966, No 11, pp 29-30.  
\*BISI 5693

Influence of the Way of Injecting Natural Gas on the Processes in the Tuyere Zone, by Yu. M. Borts, et al. RUSSIAN, per, Metallurg, Vol 12, No 3, 1967, pp 3-4.  
HB No 7133

Achievements and Shortcomings of the Ferrous Metallurgical Industry in the Ukraine During 1966, by P. G. Shengur, 10 pp. RUSSIAN, per, Metallurgiya i Gornorudnaya Promyshlennost', No 2, 1967, pp. 90-92.  
JPRS 41627

Effect of the Method of Feeding Liquid Steel to a Continuous-Casting Mold Upon the Formation and Quality of Slabs, by I. T. Kushnarev. RUSSIAN, per, Metallurgiya i Koksokhimiya, No 2, 1965, pp 109-114.  
HB No 7219

**Scientific  
Materials (Contd)**

Investigation of the Formation and Properties of Alloys of the Molybdenum-niobium System in a Monocrystalline State, by G. S. Burkhanov. RUSSIAN, per, Nauchnyy Sovet po Fizike Tverdogo Tela AN SSSR. Nauchnyy Sovet po Probleme "Fizika Tverdogo tela" AN USSR Institut Metallofiziki AN USSR. "Rost i Nesovershenstva Metallicheskih Kristallov, 1966, pp 297-303.  
\*FTD-HT-23-1033-67

Nature of Thermo Conductivity of the Carbide of Some Group 4 & 5 Transition Metals, by Yu. B. Paderno. RUSSIAN, per, Poroshkovaya Metall, Vol VII, 1967, pp 60-64.  
\*NASA TT F-11,118

New Development in Powder Metallurgy, by B. A. Borok, RUSSIAN, rpt, Poroshkovaya Metallurgiya. Sbornik Trudov Tsentral'nogo Nauchno-Issled. Inst Chernoy Metallurgiy im I. P. Bardina, No 43, 1965, pp 5-20.  
NASA TT F-10,945

Investigation the Possibility of Obtaining Stellite Powder, by V. G. Tepenko, et al, RUSSIAN, rpt, Poroshkovaya Metallurgiya. Sbornik Trudov Tsentral'nogo Nauchno-Issled. Inst Chernoy Metallurgiy im O. P. Bardina, No 43, 1965, pp 115-118.  
NASA TT F-10,946

Device for Investigations at Temperatures from 4.2 to 300°K, by V. Ye. Danil'chenko, et al, RUSSIAN, per, Priboiy i Tekhn. Eksperim., No 1, 1967, pp 208-211.  
\*NASA TT F-10,988

The Application of the Galyorkin Method to the Problem on the Stability of Unevenly Heated Liquid, by Ye. M. Zhukovitskiy. RUSSIAN, per, Prikl. Mat. Mekh., Vol 18, No 2, 1954, pp 205-211.  
\*AEC

Large Wall Panels of Light-Weight Concrete For Heated Buildings, by N. A. Kornev and A. A. Kudryavtsev, 6 pp. RUSSIAN, per, Promyshlennoye Stroitel'stvo, No 4, Apr 1967, pp. 33-35.  
JPRS 41608

Scientific  
Materials (Contd)

Thermochromatographic Determination of Carbon and Sulfur in Metals, by O. A. Sukhorukov, A. A. Zhukhovitskiy  
RUSSIAN, per, Sbornik Moskovskii Institut Stali i Splavov, 1966, No 41, pp 77-89.  
HB 7094

Formation of Billet Shell in Continuous-Casting Molds With Flat and Curved Walls, by M. S. Gordienko, V. T. Sladkoshteyev.  
RUSSIAN, per, Sbornik Trudov Unii, 1965, No 11, pp 109-112.  
HB 7220

Wood Properties, Preservation and New Wood Materials, RUSSIAN, bk, Sibirskoe Otdel Ak Nauk SSSR, Inst Lesa i Drevesiny, 1966, 126 pp.  
\*CFSTI TT 67-59065

Finish Gear Cutting from Refractory Steel Blanks, by M. P. Alenin.  
RUSSIAN, per, Stanki i Instrument, No 2, 1966, pp 24-28.  
\*FTD HT 23-993-67

An Economic Study of Window Glass Enterprises, by I. G. Adirim. 5 pp.  
RUSSIAN, per, Steklo i Keramika, No 5, 1967, pp. 37-40.  
JPRS 41608

Effect of Freon-22 on Aluminum Alloys and Non-metallic Materials, by G. B. Rozenboym, et al.  
RUSSIAN, per, Sudostroeniye, No 7, 1966, pp 51-54.  
\*FTD-HT-23-1065-67

Protection of Rubber Articles from Atmospheric Action, by I. D. Inozemtsev, G. I. Sokolov,  
RUSSIAN, per, Transport i Khraneniye Nefti i Nefteproduktov, No 1, 1967, pp 42-43.  
\*ACSI J-2874  
ID 2204029867

Investigation of the Process of Fatigue Destruction of Metals by the Method of Magnetic Hysteresis and Eddy Current Losses, by O. I. Gushcha, 10 pp.  
RUSSIAN, per, Trudy Institut Metallurgii AN SSSR, 1962, pp 147-152.  
FTD MT 65-421

Scientific  
Materials (Contd)

Ternary Alloys of Rhenium With Tungsten and Molybdenum, by K. B. Povarova, M. A. Tytkina, et al, 10 pp.  
RUSSIAN, per, Trudy Institut Metallurgii AN SSSR, No 2, 1964, pp 155-160.  
F100172167  
FTD MT 65-445

Alloying the Metal of Molybdenum Weld With Rhenium, by V. V. D'yachenko, B. P. Morozov, 5 pp.  
RUSSIAN, per, Trudy Institut Metallurgii AN SSSR, No 2, 1964, pp 208-211. F100172167  
FTD MT 65-445

Research on Copper-Nickel - Beryllium Alloy, by V. K. Portnoy, M. V. Zakherov, et al,  
RUSSIAN, Trudy Inst Metallurgii i Obogashcheniya Akademii Nauk KazSSR, Vol XV, 1966, pp 47-56.  
\*ACSI J-2852  
ID 2204008967

Coatings of Molybdenum Silicides on Graphite, by G. V. Zemskov, A. S. Sin'kovskiy and L. K. Gushchin, 6 pp.  
RUSSIAN, per, Vysokotemperaturnyye Pokrytiya, 1967, pp. 110-114.  
JPRS 41067

Coatings of High-Melting Compounds on Graphite, by A. L. Burykina and T. M. Yevtushok, 9 pp.  
RUSSIAN, per, Vysokotemperaturnyye Pokrytiya, 1967, pp. 145-153.  
JPRS 41067

Anodic Behavior of Titanium-Stabilized Chromium-Nickel Steel, by V. M. Knyazheva, et al,  
RUSSIAN, per, Zashchita Metallov, Vol II, No 6, 1966, pp 628-635.  
NLL 9022.4 (66/396)

Effect of Heat Treatment of 20% Cr, 45% Ni, Co Steel on Susceptibility to Intergranular Corrosion, by V.M. Nikiforova, N. A. Reshetkina.  
RUSSIAN, per, Zashchita Metallov, Vol 3, No 2, 1967, pp 158-160.  
HB 7211

Method for Manufacture of Tear Closures for Receptacles with NeckBend, Particularly Bottles, and Tear Closures Manufactured by the Method, by Alfons Isele-Aregger, 5 pp.  
AUSTRIAN, Patent No 223,054.  
Dept of Commerce  
Patent Office.

**Scientific  
Materials (Contd)**

**Ceremic Fibers - An Ultra-High Strength Material**  
by Ko Ting.

CHINESE, per, K'o Hsueh Hsu Pao, No 1-2,  
1965, pp 19-20.

\*FTD HT 23-1020-67

**Gallium Arsenide Semiconductor Materials**, by  
Chen-sze Chao. 6 pp.

CHINESE, per, Wu Hsien Tien (Radio), No 6, 1965,  
p 3 & p 15. P100193567

FTD-HT-66-580

**Hot-Dip Galvanized Reinforcement Steel**, by J.F.H.  
Eijnsbergen

DUTCH, per, Metalwissenschaft und Technik, Vol 19,  
1965, No 12, pp 1263-1267

\* BISI 5662

**A Method of Determining Rolling Power**, by  
J. Desvallees.

FRENCH, per, C.D.S.Circ., No 5, 1962, p 415.

\*BISI 5654

**Open-Hearth Melting Shops Commission**,  
by A. Gofflot.

FRENCH, per, C.D.S. Circ., No. 1, 1966, pp 171-211.  
BISI 5201

**Blast Conditioner for Blast Furnaces**, by  
J. M. Pariel, et al.

FRENCH, per, C.D.S.Circ., No 5, 1966,  
pp 1191-1202.

\*BISI 5422

**Optimization of Tilting Torques in the Determination  
of Control Devices for Converters**, by E. Menu,  
G. Santre

FRENCH, per, C.D.S.Circ., Mar. 1966, pp 723-739  
\* BISI 5663

**Measuring the Length of Structural Products During  
Rolling**, by C. Lachenait.

FRENCH, per, C.D.S. Circ., 1966, pp 1781-1789.  
BISI 5338

**Equilibria Between Manganese in the Hot Metal  
and Slags in Open Hearth Furnaces**, by G. Husson,  
FRENCH, per, C.D.S.Circ., 1966, No 10, pp 2245-  
2279

\* BISI 5436

**Scientific  
Materials (Contd)**

**Rapid Non-Destructive Determination of Oxygen in  
Steels by Radio-Activation**, by J. Perdijon

FRENCH, per, C.D.S.Circ., 1966, No 11, pp 2537-  
2546

\* BISI 5711

**Investigation of the Factors Influencing the Sintering  
of Two Hematite Ores**, by A. Bragard, et al.

FRENCH, per, C.N.R.M., 1965, pp 3-23.

BISI 5323

**Control of the Chemical Composition of Sinter**, by  
J. M. van Langen, et al

FRENCH, per, C.N.R.M., Sept. 1966, pp 9-15

\* BISI 5700

**Control of the Sintering Strand at Hadir-  
Dirrerdange**, by M. Erpelding.

FRENCH, per, C.N.R.M., Dec 1966, pp 3-10.

\*BISI 5716

**Phase Diagram for the Solidification of Alloys**, by  
E. Rinck, 6 pp.

FRENCH, per, Compt. Rendus, Vol 192, 1931,  
pp 1378-1381.

AEC UCRL Tr 1293 (L)

**Demonstration of Temper Brittleness by Stress  
Corrosion Tests in the Presence of Hydrogen**,

by U. Q. Cabral, et al.

FRENCH, per, Comptes Rend, Vol 260, 28 Jun 1965,  
pp 6887-6890.

\*BISI 5717

**On the Hydrolysis of Uranium-Thorium-Carbon  
Alloys Rich in Carbon**, by L. M. Ferris.

FRENCH, per, Compt Rendus, Vol 2620, 1966,  
pp 1265-1267.

AEC ORNL Tr 1416

**The Application of Electronic Computers to Stru-  
ctural Steelwork-Modern Mathematical Ideas**, by  
E. Absie.

FRENCH, per, Construction Metallique, No 4, 1966  
pp 19-24.

\*BISI 5713

**Therman Analysis of Cast Iron as a Quality Control  
Tool**, by J. Coppolani, J. C. Margerie

FRENCH, per, Fonderie, Vol 243, 1966, pp 159-178

\* BISI 5673

**Scientific  
Materials (Contd)**

Illustration of the Mechanism of the Formation of Sulphides, by P. Detrez  
FRENCH, per, Fonderie, Sept. 1966, pp 333-338  
\* BISI 5679

Combustion of Carbon and Thermal Balance in the Sintering Process, by J. Michard.  
FRENCH, per, International Symposium on the Agglomeration of Iron, IRSID, May 1957.  
\*BISI 5675

Production of Steel in the Arc Furnace From Continuously Pre-Reduced Ore, by J. Antoine,  
FRENCH, per, Paper Presented to an International Congress at Evian, 29-31 May 1967.  
\*BISI 5689

Possibilities of Using Pre-Reduced Products in the Melting Shop, by P. Cesselin, C. Roederer  
FRENCH, per, Paper presented to an International Congress at Avian, 29-31st May, 1967  
\* BISI 5690

Hot Torsion Test for Simulating the Behavior of Structures During Hot Rolling, by C. Rossard, P. Blain.  
FRENCH, per, Revue De Metallurgie, Vol 59, 1962, pp 223-236.  
HB No 7169

New Developments in the Field of Standard Structural Steels with High Properties, by B. Matuschka, et al.  
FRENCH, per, Rev Met., Vol 62, Oct. 1965, pp 911-921.  
\*BISI 5661

Stainless Steels with Silicon Additions: General Study of their Behavior in Highly Oxidizing Acid, by H. Coricu, et al  
FRENCH, per, Rev. Met., Vol 62, 1965, Dec. pp 1193-1203  
\* BISI 5664

Measurement of the Length of Hot or Cold Bars in Steel Mills, by C. Lachenait  
FRENCH, per, Rev. Met., Sept., 1966, Vol 63, pp 691-706  
BISI 5372

The Principal Methods for Measuring the Resistance to the Propagation of Cracks Analysis of Some Results, by D. Douillet.  
FRENCH, per, Rev. Met., Vol 63, No 9, 1966, pp 725-731.  
\*BISI 5558

**Scientific  
Materials (Contd)**

Comparison of Some Deep Drawing Tests, by G. Pomey  
FRENCH, per, Rev. Met., Oct. 1966, Vol 63, pp 823-841  
\* BISI 5712

Determination of Nitrogen in Steels and Cast Irons by Reducing Fusion, by E. Jaudon  
FRENCH, per, Rev. Met., Vol 63, 1966, Dec. pp 1025-1031  
\* BISI 5719

Bibliographical Study of the Effect of Rare-Earth Additions on the Properties of Steel, by E. Anderson, et al.  
FRENCH, per, Rev. Met., Vol 64, No 2, 1967, pp 177-183.  
\*BISI 5656

Rolling of Tubes on Stretch Reducing Mills, by B. Fazan, P. Blain  
FRENCH, per, Rev. Met., Vol 64, 1967 Mar., pp 209-225  
\* BISI 5702

The Production of Pellets From Ashes of Pyrites, by U. Colombo, et al.  
FRENCH, per, Rev. Ind. Minerale, Vol 48, No 5, 1966, pp 389-397.  
\*BISI 5270

Analysis of a Manganese Ore by X-ray Fluorescence Standardisation of the Method From Synthetic Mixtures, by J. Hanon, et al.  
FRENCH, per, Rev. Met. Mem. Sci., Vol 62, No 1, 1965, pp 45-58.  
\*BHP 5292

New Metallographic Method for Revealing Magnetic Patterns in Ferrite, by A. Scottacchi, et al.  
FRENCH, per, Rev. Met. Mem. Sci., Vol 62, No 10, 1965, pp 733-740.  
\*BISI 5569

A New Method for Extrapolating the Fracture Time of an Industrial Alloy, by S. Zimmering  
FRENCH, per, Rev. Met. Mem. Sci., Vol 62, 1965, Dec. pp 939-950  
\* BISI 5665

Use of Phase Diagrams of Binary Systems for the Calculation of the Heat of Fusion of the Solvent, by A. Ferrier  
FRENCH, per, Rev. Met. Mem. Sci., Vol 63, July-Aug 1966, pp 597-612  
\* BISI 5683

Scientific  
Materials (Contd)

Contribution to the Study of Impact Testing and Brittle Fracture, by G. Pomey, M. Grumbach.  
FRENCH, per, Rev Met Mem Sci., Vol 63, Sept. 1966, pp 709-729.  
\*BISI 5682

Precipitation in an 18/10 Stainless Steel With Molybdenum and Phosphorus, by G. Henry, et al.  
FRENCH, per, Rev. Met. Mem. Sci., Vol 64, No 1, 1967, pp 11-21.  
\*BISI 5647

The Microfractographic Types of Various Brittle Fractures Associated With the Tempering of Steels, by E. Mencarelli, et al.  
FRENCH, per, Rev. Met. Mem. Sci. Vol 64, No 2, 1967, pp 111-124.  
\*BISI 5701

Effect of Work Hardening and Heat Treatment on Corrosion Resistance of 18/8 Steel, by M. Voinov, R.J.A. Potvin  
FRENCH, per, Rev. Met. Mem. Sci., Vol 87, Mar. 1967, pp 293-299  
\*BISI 5649

Techniques of Particle Size Analysis-Principles and Equipment, by R. Leenaerts.  
FRENCH, per, R.U.M., Vol 109, 1966, pp 197-207.  
BISI 5406

The Automation of the Sintering Process at the Marchienne Plant of the Forges de la Providence S. A., by H. Landgraf, I. Harvang.  
FRENCH, per, RUM, Vol 108, 1965, pp 305-312.  
\* BISI 5658

Determination and Analysis of Operating Characteristics for Sintering Plants and Their Use in Attaining Optimum Output, by H. Landgraf.  
FRENCH, per, R.U.M., Vol 109, 1966, pp 263-272.  
\*BISI 5366

The Role of Orientation in the Martensite-to-Austenite Transformation in Iron-Nickel Alloys, by H. Kessler, W. Pitsch.  
GERMAN, per, Acta. Met., Vol 13, 1965, pp 871-4.  
\*BISI 5657

Scientific  
Materials (Contd)

Progress in the Determination of Oxygen, Hydrogen, and Nitrogen in Metals, by Th. Kraus.  
GERMAN, per, Analyt. Chemie, Vol 209, 1965, pp 206-213.  
HB No 7187

The Crystallographic Progress of the Precipitation of Cementite in Ferrite and Austenite, by W. Pitsch  
GERMAN, per, Arch. Eisenh., Vol 34, Aug. 1963, pp 641-645  
\* BISI 5667

Investigation of the Diffusion and Precipitation of Carbon in Ferritic Iron-Nickel Alloys, by W. Heller, J. Brauner  
GERMAN, per, Arch. Eisenh., Vol 35, Nov. 1964, pp 1105-1110  
\* BISI 5708

Rapid Analysis of Open-Hearth Furnace Slags with a Vacuum Spectrometer, by W. Brokopf  
GERMAN, per, Archiv Eisenhüttenwesen, Vol 35, 1964, No 12, pp 1161-63  
HB No 7076

Investigation of the Natural and Artificial Ageing of General Structural Steels, by W. Felix.  
GERMAN, Arch. Eisenh., Vol 36, No 1, 1965, pp 35-40.  
BISI 5462

Effect of Cryogenic Treatment on the Hardness, Bending Strength and Creep Strength of Hardened and Tempered Unalloyed Steels with 0.8 to 1.0 % C., by P. Fischer.  
GERMAN, per, Arch. Eisenh., Vol 36, 1965, pp 493-496.  
\*BISI 5707

Damping Measurements and Electron Microscopical Investigations of Nitrated Pure Iron, by W. Koster, W. Horn.  
GERMAN, per, Arch. Eisenh., Vol 37, 1966, pp 155-160.  
\*BISI 5715

Structure of Sintered Tungsten Carbide-Cobalt Alloys in Relation to the Structure, by H. Fischmeister, H. E. Exner,  
GERMAN, per, Arch. Eisenhütte, Vol XXXVII, June 1966, pp 417-426.  
\*BISI 5704

**Scientific  
Materials (Contd)**

Properties of Cemented Tungsten Carbide-Cobalt Alloys in Relation to the Structure, by H. Fischmeister, H. E. Exner.  
GERMAN, per, Arch. Eisenhutte, Vol 37, June 1966, pp 499-510.  
\*BISI 5705

Effect of Aluminium on the Damping and Solubility of carbon in Alpha-Iron, by W. Janiche, et al  
GERMAN, per, Arch. Eisenh., Vol 37, Sept. 1966, pp 719-728  
\* BISI 5685

Present State of the Hydrodynamic Theory of Rolling, by K. H. Weber.  
GERMAN, per, Arch. Eisenh., Vol 37, 1966, pp 783-794.  
BISI 5469

Electrochemical and Electrical Studies in the System Iron-Phosphorus-Oxygen-Lime, by W. A. Fischer, et al  
GERMAN, per, Arch. Eisenh., Vol 37, Nov. 1966, pp 853-862  
\* BISI 5714

Study of the Effect of Grain Size of Steel on the Transition Temperature of Notch Toughness, by L. Varga & B. Marincek  
GERMAN, per, Arch. Eisenh., Vol 38, Feb. 1967, pp 129-134  
\* BISI 5698

Differentiation Between Low and High Phosphorus Regions in Iron by Etching, by F. K. Naumann, et al.  
GERMAN, per, Archiv Eisenhüttenwesen, Vol 38, 1967, No 2, pp 145-49.  
HB No 7112

The Constitutional Diagram of the System  $\text{CaO-FeO-P}_2\text{O}_5\text{-SiO}_2$  at  $1600^\circ\text{C}$ , by G. Tromel, et al.  
GERMAN, per, Arch. Eisenh., Vol 38, 1967, pp 177-184.  
\*BISI 5646

Slag Formation on High Phosphorus Pig Iron During Oxygen Top Blowing with Powdered Lime, by H. J. Fleischer, W. A. Fischer  
GERMAN, per, Arch. Eisenh., Vol 38, Mar., 1967, pp 185-190  
\* BISI 5617

**Scientific  
Materials (Contd)**

Effect of Defects in Boiler Tubes on Their Service Properties, and Reliability of Ultra-Sonic Testing, by H. J. Meyer.  
GERMAN, per, Bänder Bleche, Vol 8, 1967, pp 76-83.  
\*BISI 5654

Creep of Thick-Walled Hollows in the Presence of Internal Pressure, by H. Dietmann.  
GERMAN, per, Bänder Bleche, Vol 8, 1967, pp 143-149.  
\*BISI 5699

Welded Precision Steel Tubes for Hydraulic Installations, by G. Rothe, U. Hahn.  
GERMAN, per, Der Maschinenbau, 1963, pp 401-406.  
\*BISI 5542

Relationship Between Mechanical Properties and Structure in Chromium Steels Containing, by K. Bungardt, et al  
GERMAN, per, DEW-Techn. Ber., Vol 6, 1966, No 4, pp 151-175  
BISI 5427

Influence of Heat Treatment Factors on the Wear of Tools, by E. Zmihorski.  
GERMAN, per, Draht, Vol 16, 1965, pp 535-538.  
BISI 5018

Present State of Production of Conventional and Double Reduced Tinplate, by A. Luth  
GERMAN, per, Forschungsges. Blechverarb. Mitt., Vol 17, 1966, Feb 25, pp 82-89  
\* BISI 5115

Direct Production of Steel with Gases, by H.-J. Tischendorf.  
GERMAN, per, Freiberger Forschungsh. Vol A286, 1964, pp 151-163.  
BISI 5360

Deoxidation of Steel with Complex Alloys of Various Types, by M. Mandle, J. Skala  
GERMAN, per, Freiber Forschungsh. B 106, 1965, pp 93-116  
\*HB 7191

**Scientific  
Materials (Contd)**

An Electron-Beam Multichamber Furnace with an Output of 1700 kw, by M. von Ardenne, et al  
GERMAN, per, Freiber Forschungsh., 1966, B 122, pp 57-66  
\*HB 7192

Studies of the Lump Formation in Continuous Meltin in an Electron-Beam Multichamber Furnace, Using a Mathematical Model for Calculating the Temperature Distribution in the Melted Metal, by F. Esser, et al.  
GERMAN, per, Freiber Forschungsh., No B 122, 1966, pp 67-76.  
\*HB 7193

Control of Remelt Process in a 200 kw Electron-Beam Furnace, by F. Esser, et al  
GERMAN, per, Freiber Forschungsh., 1966, B 122, pp 89-98  
\* HB 7196

Metallurgy of Remelting of HSS S 6-6-2 in a 200 kw Electron-Beam Furnace, by H. Fiedler  
GERMAN, per, Freiber Forschungsh., 1966, B 122, pp 99-109  
\* HB 7197

Studies of the Thermoelectric Determination of Silicon in White Cast Iron Samples, by H. W. Egen  
GERMAN, per, Giesserei, Vol 51, 1964, No 17, pp 492-98  
HB No 7188

Influence of Composition and Compression of Green Sands on Tensile and Compression Strength of Test Specimens and Sand Moulds, by D. Boenisch  
GERMAN, per, Giesserei, Vol 53, 1966, Sept. 1, pp 565-574  
\* BISI 5394

Annual Review of Spheroidal Graphite Cast Iron, by H. Trager.  
GERMAN, per, Giesserei, Vol 53, Oct 27, 1966, pp 755-757.  
\*BISI 5686

Practical Experiences in the Emission Spectrometric Analysis of Carbon and Alloy Steels Using a Vacuum Spectrometer, by E. Goossens, G. Hopfer.  
GERMAN, per, Giesserei, Vol 54, No 2, 1967, pp 29-33.  
HB No 7067

**Scientific  
Materials (Contd)**

Checking the Composition of Hypoeutectic Liquid Cast Irons by Thermal Analysis, by H. Mayer.  
GERMAN, per, Giesserei, Vol 54, No 2, 1967, pp 58-63.  
\*HB 7231

The Present State of Development in Nitriding, by H. Wiegand.  
GERMAN, per, Hart -Techn. Mitt., Vol 21, 1966, pp 263-270.  
BISI 5518

Mechanical Properties of Carbonitrided Steels, by B. Prenosil.  
GERMAN, per, Hart-Techn. Mitt., Vol 21, 1966, pp 271-285.  
BISI 5536

Determination of Trace Contents of Boron in Steel, by St. Gregorczyk, J. Mrozinski.  
POLISH, per, Hutnik, Vol 33, No 10, 1966, pp 4260-431.  
HB No 7022

A Contribution to the Fundamentals of Cold-Forming, by P. Funke jun.  
GERMAN, per, Kalibreur, 1966, pp 49-62.  
\*BISI 5588

Inter-crystalline Corrosion of Austenitic Steels and Nickel Base Alloys in Non-Sensitized Condition, by Hans Ulrich Borgstedt.  
GERMAN, rpt, Kernforschungszentrum, Karlsruhe, 14 Jan 1966.  
\*ABC

The "T-NOCK" Casting Process, by O. Klein, E. Kudielka.  
GERMAN, per, Klempig Fachberichte, No 2, 1967 pp 125-127.  
HB 7189

Affecting Factors and Evaluation in Natural Corrosion Trials on Non-Alloys and Low-Alloy Steel, by K. Daevs, et al.  
GERMAN, per, Korrosion und Metallschutz, Sep 1943, pp 233-259.  
\*BISI 5687



Scientific  
Materials (Contd)

Adhesion and Layer Build-Up in Electric Arc and Flame Spraying, Part I, by A. Matting, H. D. Steffens, 28 pp.  
GERMAN, per, Metall, Vol 17, Jun 1963, pp 583-593.  
AEC ORNL Tr-1392

Adhesion and Layer Build-Up During Plasma Arc and Flame Spraying. Part III, by A. Matting, H. D. Steffens, 58 pp.  
GERMAN, per, Metall, Vol 17, 1963, pp 1213-1230.  
AEC ORNL Tr 1394

An Index of the Sensitivity of Steel Ingots to Heating, by P. Kuzmowicz, L. Mockel, et al.  
GERMAN, per, Neue Hutte, Vol 11, No 1, 1966  
pp 43-49.  
HB 6943

Some Promising Rust-Proofing Processes for Sintered Iron and Sintered Steel, by H. Rebsch, R. Siegel.  
GERMAN, per, Neue Hutte, Vol 12, No 1, 1967,  
pp 43-48.  
HB 7116

Full Scale Melting Trials for the Electro-Thermal Production of Pig Iron From Pre-Reduced Iron Ore, by F.W. Mollenkamp, W. Haidux  
GERMAN, per, Paper presented to an international Congress at Evian 29-31st May, 1967  
\* BISI 5691

Light-Sensitive Vinyl Polymers, by G. Fogarty, Z. Borha.  
GERMAN, per, Elaste Kautschuk, Vol X, No 12, 1963, pp 728-730.  
ATS 1189-GJ

The Laser Micro-Spectral Analyzer and Its Applications, by L. Moenke-Blandenburg, et al.  
GERMAN, per, Prakt. Metallographie, Vol 3, No 4, 1966, pp 105-111.  
\*BISI 5697

Contribution on the Use of Cerium-Lanthanum Misch Metal in the Production of Special Steels, by A. Schoberl, et al.  
GERMAN, per, Radex Rundschau, No 1, 1967, pp 414-428.  
HB No 7118

Scientific  
Materials (Contd)

The Drying of Steel-Plant Casting Ladles, by W. Deilmann, E. Klimanek  
GERMAN, per, Rundschau, 1967, No 1, pp 401-406  
HB No 7113

Influence of Passivation Films on Electrolytic Galvanized Strip Metal on the Suitability of the Material for Resistance Spot Welding by H. Becker.  
GERMAN, per, Schweissen Schneiden, Vol 18, No 12 1966, pp 586-591  
\*BISI 5655

Roll-Temperature Measurement in a Strip Mill, by R. Hirschfelder  
GERMAN, per, Stahl Eisen, Vol 79, Aug. 6, 1959,  
pp 1144-1145  
\* BISI 5416

Resistance to Deformation of Steel C45 During Hot Upsetting With Medium Deformation Speeds, by W. Lueg, U. Krause  
GERMAN, per, Stahl Eisen, Vol 80, Aug. 4, 1960,  
pp 1061-1067  
\* BISI 5706

Discussion of Experiences with a Reducing Mill for Hot Rolling of Wire, by H. Jungk, et al  
GERMAN, per, Stahl Eisen, Vol 82, 1962, Dec. 20,  
pp 1873-1879  
\* BISI 5695

Gas Chromatography Contributions to Steelworks Chemistry, by K. Habel  
GERMAN, per, Stahl und Eisen, Vol 83, 1963, No 23,  
pp 1374-5  
HB No 7203

Synthetic Coating of Steel, by B. Mauthen.  
GERMAN, per, Stahl und Eisen, Vol 86, 1965,  
pp 730-739.  
BISI 5139

On the Softening Under Load of Ore Sinters of Different Basicities, by E. Overkott, et al  
GERMAN, per, Stahl Eisen, Vol 86, 1966, Sept. 8,  
pp 1122-1128  
\* BISI 5684

Effect of Alumina on the Properties of Sinters Containing Oxide, by R. Euler, et al.  
GERMAN, per, Stahl Eisen, Vol 86, Nov 3, 1966,  
pp 1465-1469.  
\*BISI 5498

Scientific  
Materials (Contd)

Determination of the Sulphur Content of Iron and Steel, Comparison of Combustion Techniques in a High Frequency Furnace with Chemical Techniques, by E. Schoffmann  
GERMAN, per, Stahl Eisen, Vol 86, 1966, Nov 17, pp 1534-1536  
BISI 5487

Relationship Between Cutting Edge Geometry, Tool Wear and Surface Finish in the Scalping of Bright Steel Bars With Cemented Carbide Tool, by Buhler, K. Springsmann.  
GERMAN, per, Stahl Eisen, Vol 86, 1966, pp 1711-1719.  
BISI 5361-III

Relationship Between Cutting Edge Geometry, Tool Wear and Surface Finish in the Scalping of Bright Steel Bars With Cemented Carbide Tools, by E. Becker, B. Bersch.  
GERMAN, per, Stahl Eisen, Vol 86, 29 Dec 1966, pp 1720-1729.  
\*BISI 5361-IV

Action of a Throat Armour of Variable Diameter on the Gas Flow in a Blast Furnace, by W. Lootz, H. Schoppa  
GERMAN, per, Stahl Eisen, Vol 87, 1967, pp 21-28  
\* BISI 5483

Investigations on the Seizing and Passing of Ingots Through the Rolls in Reversing Rolling Mills, by B. Kortsfleisch.  
GERMAN, per, Stahl Eisen, Vol 87, No 4, 1967 pp 424-432.  
\*BISI 5720

Formation and Cause of Cracks in As-Cast Steel Ingots Compared With Continuously Cast Billets, by T. Tromel.  
GERMAN, per, Stahl und Eisen, Vol 87, No 3, 1967, pp 163-167  
HB No 7172

Scientific  
Materials (Contd)

The Evaluation of Coke Oven Gas and Natural Gas for Injection into the Blast Furnace, by R. Gorgen, H. Weineck  
GERMAN, per, Stahl und Eisen, Vol 87, 1967, No 4, pp 188-190  
HB No 7109

The Desulfurization of Hot Metal by the Immersion Lances Process, by H. Pohl, W. Maschlanka  
GERMAN, per, Stahl und Eisen, Vol 87, 1967, No 4, pp 190-195  
HB No 7110

Manufacture and Processing of Wire Rod Cooled Under Controlled Conditions Part I, by P. Funke,  
GERMAN, per, Stahl Eisen, Vol 87, 1967, Mar 23, pp 293-299  
\*BISI 5649

The Properties of Wire-Rod With Controlled Cooling, by E. Boekenhoff, et al.  
GERMAN, per, Stahl Eisen, Vol 87, 23 Mar 1967, pp 300-306.  
\*BISI 5650

Manufacture and Processing of Wire Rod Cooled Under Controlled Conditions, by E. Boekenhoff.  
GERMAN, per, Stahl Eisen, Vol 87, 1967, pp 307-318.  
\*BISI 5651

The Development of Surface Defects During the Hot-Rolling of 5.5 mm Steel Wire-Rod and Their Importance for Wire Processing, by P. Funke, et al.  
GERMAN, per, Stahl Eisen, Vol 87, Mar. 23, 1967, pp 318-331.  
\*BISI 5652

Investigations of the Reactions Between Solid Carbon and Liquid Slag with High Ferrous Oxide Content, by H. Krainer, et al.  
GERMAN, per, Techn. Mitt. Krupp Forschungsber., Vol 24, No 3, 1966, pp 139-146.  
\*BISI 5669

Contribution to the Determination of Retained Austenite by X Ray Diffraction, by J. Willbrand E. Hillnhagen  
GERMAN, per, Techn. Mitt. Krupp Forschungsber., Vol 24, Nov. 1966, pp 159-164  
\* BISI 5301

**Scientific  
Materials (Contd)**

Flexible Containers Made of Rubberized Fabrics Suitable for Fire Protection Use, by Franz Jaeger, GERMAN, per, Unser Brandschutz, No 3, 1967, pp 26-28.  
ACSI J-2400  
ID 220419267

Kinetics of the Corrosion of Iron Characterized by Hydrogen and Oxygen Depolarisation, by J. Sedssmir. GERMAN, per, Werke Korros, Jul 1966, pp 556-557.  
\*BISI 5710

The Anodic and Cathodic Behaviour of Iron in Electrolytes Containing Sulphated, by J. Brenet. GERMAN, per, Werke Korros, Apr 1966, pp 316-321.  
\*BISI 5709

The Deposition of Silver and Manganese From Mixtures of Molten Salts, by P. Drossbach, 27 pp. GERMAN, per, Zeit Elektrochem, Vol 56, 1952, pp 602-608.  
ABC UOEL Tr-1291 (L)

The Relationship Between the Structures of the Modifications of Platinum and Copper Phthalocyanines and Some Chloro Derivatives, by B. Hönigsmann, et al. GERMAN, per, Z. Krist, Vol CXXII, 1965, pp 185-205.  
ATS 1196-GJ

Absolute X-Ray Fluorescence Analysis, by H. Ebel GERMAN, per, Z. Metallk., Vol 57, 1966, No 6, pp 454-457  
\* BISI 5670

Diffusion in Mehrphasigen Legierungssystemen, by Theo Neumann. GERMAN, per, Zeitschrift für Metallkunde, Vol 58, 1967, pp 168-174.  
\*ABC

Process for Isolation of Calcium Pantothenate, by Jonathan D. Brooks, 3 pp. GERMAN, Patent No 1,041,967  
Dept of Commerce  
Patent Office

**Scientific  
Materials (Contd)**

Plastic Binding of Iron Rails, HUNGARIAN, per, Vasut, Vol XVI, No 6, 1966, pp 7-10.  
DIA LN 636-66A

Determination of Traces of Antimony in Steel by the Use of Spectrophotometry with Brilliant Green, by B. Morello. ITALIAN, per, Met. Ital, Vol 58, No 8, 1966, pp 317-322.  
\*BISI 5677

"Tubular Apparatus for Separation of Liquids from Gas and Vapors, Especially from Gas and Vapors Flowing from Top to Bottom in a Downcomer", by C. Otto, 6 pp, ITALIAN, Patent No 519,881  
Dept of Commerce  
Patent Office

The Limiting Effect of the Flue Dust Content of Furnace Gas on the Application of Higher Blast Temperatures, by J. Graves. HUNGARIAN, per, Koh. Lapok, Vol 99, 1966, pp 390-392.  
\*BISI 5718

Stress Corrosion Cracking of Stainless Steel Heat Exchanger Tubes in High-Temperature Water, by S. Onishi, J. Nakamura. JAPANESE, per, Boshoku Gijutsu, Vol 14, No 8, 1965, pp 8-13.  
BB 7181

Statistical Analysis of Mechanical Strength of Graphite, by Sennosuke SATO, 18 pp. JAPANESE, per, Carbon, Vol 38, 1964, pp 20-29.  
ABC NEJ Tr-46

Aging Effect and Thermal Demagnetization of Magnetic Iron Oxide Tapes, by Yasuo IMACKA. JAPANESE, per, Denki Kagaku, Vol 33, 1965, pp 641-646.  
\*Dept of Navy NRL

Scientific  
Materials (Contd)

Oxidation of Magnetic Powder by Fused Salts, by  
Yasuo IMAOKA.  
JAPANESE, per, Denki Kagaku, Vol 33, 1965,  
pp 872-875.  
\*Dept of Navy NRL

The Accidental Printing Effect in Magnetic Tape  
Composed of Cobalt Substituted Gamma Ferric Oxide  
Powder, by Humitada HAYAMA, Itiro TOTIKUBO.  
30 pp.  
JAPANESE, per, Journal of Japan Society of Powder  
Metallurgy, Vol 12, No 6, 1965, pp 34-43. or  
250-259.  
Dept of Navy tr 5436 NRL tr 1105

Corrosion Studies of Reactor Materials by High  
Temperature and High Pressure Water Loop (1).  
Corrosion of Zr and Its Alloys, by Sueo NOMURA,  
Noboru ITO, Hiroharu ITAMI, Cho AKUTSU, 28 pp.  
JAPANESE, per, Nippon Genshiryoku Gakkaishi,  
Vol 6, No 1, 1964, pp 28-36.  
AEC NSJ Tr-19

Control of Solid Skin in a Rimmed Steel Ingot,  
by T. Araki.  
JAPANESE, per, Sum. Met., Vol 17, 1965, pp 339-  
349.  
BISI 5447

Number of Elongated Blowholes and Their Distance  
from Ingot Surface, by K. Asano, T. Ohashi,  
JAPANESE, per, Tetsu to Hagane, Vol 51, No 10,  
1965, pp 1674-1876.  
HB No 7129

Rate of Deoxidation Mainly by Aluminum, in a Quiet  
Bath, by T. Kawawa, et al  
JAPANESE, per, Tetsu to Hagane, Vol 52, 1966, No 9,  
pp 1457-1460  
HB No 7125

On the Distance Between the Steel Ingot and the  
Skin Blowholes, by Sh. Watanabe, et al.  
JAPANESE, per, Tetsu to Hagane, Vol 52, No 9,  
1966, pp 1525-28.  
\*HB 7231

Photometric Determination of Zirconium in Stain-  
less Steel, Using Arsenazo III, by D. Kamimori.  
JAPANESE, per, Tetsu to Hagane, Vol 52, No 11,  
p 892.  
HB 7204

Scientific  
Materials (Contd)

Effects of Annealing Temperature on a Strain  
Ageing of Vanadium-Treated Cold Rolled Low-  
Carbon Rimmed Steel Sheet, by K. Takasina,  
S. Harada  
JAPANESE, per, Tetsu to Hagane, Vol 52, No 4,  
1966, pp 726-729.  
BISI 5129

Studies on the Factors Affecting the Workability  
(Fluidity) of Resins Used for the Injection  
Molding of Ceramics. Studies on the Injection  
Molding of Ceramics. Part I, by Asao MOTEKI,  
40 pp.  
JAPANESE, per Yogyo Kyokai Shi, Vol 67, 1959,  
pp 387-399.  
AEC SC-T-65-768

A Study on Various Factors in the Heating Treat-  
ment of the Injection Molded Ceramic Articles.  
Studies on the Injection Molding of Ceramics.  
Part II, by Asao MOTEKI, 31 pp.  
JAPANESE, per, Yogyo Kyokai Shi, Vol 68, 1960,  
pp 11-21.  
AEC SC-T-65-0771

Properties of High Alumina Porcelain Produced  
by Injection Molding Studies of the Injection  
Molding of Ceramics. Part III, by Asao MOTEKI,  
28 pp.  
JAPANESE, per, Yogyo Kyokai Shi, Vol 68, 1960,  
pp 23-32.  
AEC SC-T-65-0770

Non-metallic Inclusions in Vacuum-cast or De-  
gassed Steel, by M. Krucinski.  
POLISH, per, Hutnik, Vol 33, No 10, 1966,  
pp 401-406.  
BISI 5435

Xylites Being Studied in Poland As Raw Material  
For Other Products, by Stefan Wenglerow, 7 pp.  
POLISH, per, Koks, Spola, Gaz, Vol 12, No 1-2,  
Jan-Feb 1967, pp. 26-28.  
JPRS 41103

Significance of and Trends in Development of  
Geophysical Research in the Polish Petroleum  
Industry, by Krzysztof Sojka and Jan Rudowicz,  
14 pp.  
POLISH, per, Nafta, No. 2, Feb 1967, pp. 37-43.  
JPRS 40941

Scientific  
Materials (Contd)

Current Status of Geological Survey of Polish Oil-Gas Reserves, by Piotr Karnkowski, 8 pp.  
POLISH, per, Nafta, No. 2, Feb 1967, pp. 44-47.  
JPRS 40941

The Problem of Crude Oil and Natural Gas Deposits in the Five-Year and Long-Range Technical Progress Plan, by Jozef Zuzak, 19 pp.  
POLISH, per, Nafta, No. 2, Feb 1967, pp. 50-59.  
JPRS 40941

The Problem of Petroleum Products Distribution in the Five-Year and Long-Range Technical Progress Plan, by Jan Karczmarski, 5 pp.  
POLISH, per, Nafta, No. 2, Feb 1967, pp. 62-64.  
JPRS 40941

Submicron Metal Powders, by M. Waltenberger-Razniewska, et al.  
POLISH, per, Rudy Metale Niezelazne, Vol 10, No 2, 1965, pp 73-79.  
\*FTD-HT-23-1035-67

The Oxidation-Reduction Diagram, by D. Masse  
PORTUGUESE, per, Metalurgia, Vol 22, July 1966, pp 523-532  
\* BISI 5672

Determination of the Characteristics of Sinters Prepared at the "President Varga" Plant of CIA. Sierurgica Nacional, by A. B. de Souza  
PORTUGUESE, per, Metalurgia, Vol 22, 1966, July, pp 533-544  
\* BISI 5671

Some Characteristics of Brazilian Iron Ores and Their Agglomerates, by R. P. de Souza, C. D. Brosch.  
PORTUGUESE, per, Metalurgia, Vol 22, 1966, pp 855-870.  
\*BISI 5680

Modern Axial Blowers for Blast Furnace, by A. Stoeckicht.  
PORTUGUESE, per, Metalurgia, Vol 22, 1966, pp 871-876.  
\*BISI 5678

The EYL Process: Production of Steel From Sponge Iron; Utilization by USIM, by C. E. M. Braga.  
PORTUGUESE, per, Metalurgia, Vol 22, 1966, pp 951-959.  
\*BISI 5681

Scientific  
Materials (Contd)

The Djerdap Hydroelectric Power and Navigational System, by Vukadin Djordjevic, 13 pp.  
SERBO-CROATIAN, per, Izgradnja, No. 4, Apr 1967, pp. 5-12.  
JPRS 40893

Utilization of Production Capacities in Ferrous Metallurgy in Yugoslavia, by Borivoje Miskovic, 28 pp.  
SERBO-CROATIAN, per, Productivnost, Vol. 9, No. 2, Feb 1967, pp. 91-97.  
JPRS 41002

Treatment of Moulds and Coating of Olivine Sand Moulds, by T. Malmberg.  
SWEDISH, per, Gjuteriet, Vol 56, No 6, 1966, pp 87-100.  
BISI 5459

Accelerated Cooling of Hot Rolled Products, by N. Jensfelt  
SWEDISH, per, Jernkont. Ann., Vol 149, 1965, No 9, pp 507-601  
\* BISI 5703

Process Control of Plate and Wide Strip Mills, by K. Gedin  
SWEDISH, per, Jernkont. Ann., Vol 150, 1966, No 8, pp 537-572  
\* BISI 5286

Determination of the Toughness of Hard Steels, by L. Kondbom.  
SWEDISH, per, Jernkont. Ann., Vol 150, No 10, 1966, pp 718-745.  
\*BISI 5694

Influence of Different Factors on the Coefficient of Heat Transfer in the Cooling of Steel, by G. Wallquist  
SWEDISH, per, Jernkont. Ann., Vol 150, 1966, No 11, pp 757-776  
\* BISI 5692

Effect of Thermocycling on the Austenite Transformation in Magnesium-Treated Cast Iron, by K. P. Bumin.  
UKRAINIAN, per, Dopovidi Akad. Nauk Ukr RSR, No 4, 1966, pp 453-456.  
EB 6738

**Scientific  
Mathematical Sciences**

**Asymptotic Methods in the Theory of Linear Differential Equations**, by S. F. Feshchenko, N. I. Shkil', et al,  
RUSSIAN, bk, Asimptoticheskiye Metody v Teorii Lineynykh Differentsial'nykh Uravneniy, 1966.  
P910242267-V  
NASA TT F-458

**Iteration Method in the Problem of Approximating Functions form a Finite Number of Observations**, by B. M. Litvakov,  
RUSSIAN, per, Avtomekhanika i Telemekhanika, No 4, 1966, pp 104-113.  
\*NASA TT F-10,933

**On the Asymptotic Behavior of the Solutions of Boundary Problems for Quasilinear Differential Equations**, by M. I. Vishik,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXI, No 5, 1958, pp 778-781.  
NASA TT F-484

**Mathematical Methods of Interpreting and Evaluating the Proteinogram and Their Practical Significance**, by B. G. Kaplan and V. Ye. Gurvich, 8 pp.  
RUSSIAN, per, Laboratornoye Delo, No. 11, 1963, pp. 8-12.  
JPRS 41427

**Evaluation of Standard Integrals in Kinetic Moment Equations**, by Ye. V. Alekseyeva, R. G. Barantsev, et al.  
RUSSIAN, per, Leningrad Universitet Nauchno-Issledovatel'skiy Institut Matematiki i Mekhaniki Aerodinamika Razrezhennykh Gazov, No 2, 1965, pp 79-97.  
\*FTD MT 66-165

**The Degree of Dissipation of Random Processes Defined by Differential Equations**, by R. Z. Khas'minskiy,  
RUSSIAN, per, Problemy Peredachi Informatsiy, Vol I, No 1, 1965, pp 88-104.  
\*ACSI J-2818  
ID 2204027967

**Cauchy Problem for Second-order Differential Equations on Branch Space**, by V. B. Raskin, P. E. Sobolevskiy,  
RUSSIAN, per, Sibirskiy Matematicheskiy Zh, Vol VIII, No 1, 1967, pp 70-90.  
\*Dept of Navy/ APL/JHU J-1004

**Scientific  
Mathematical Sciences (Contd)**

**Boundary-Value Problems for Generalized Analytical Functions in the Space of Functionals**, by V. S. Rogozhin,  
RUSSIAN, per, Sibirskiy Matemat Zhurnal, Vol VIII, No 1, 1967, pp 115-122.  
\*Dept of Navy/ APL/JHU J-1005

**Hyperbolic Equations in Hilbert Space**, by P. E. Sobolevskiy, V. A. Pogorelenko,  
RUSSIAN, per, Sibirskiy Matemat Zhurnal, Vol VIII, No 1, 1967, pp 123-145.  
\*Dept of Navy/ APL/JHU J-1006

**On the Existence of Eigenvectors in Nonlinear Not Completely Continuous Operators**, by V. Ya. Stetsenko, B. Imomnazarov,  
RUSSIAN, per, Sibirskiy Matemat Zhurnal, Vol VIII, No 1, 1967, pp 146-155.  
\*Dept of Navy/ APL/JHU J-1007

**Method of Lines Applied to Certain Boundary Problems** by V. N. Faddeyeva.  
RUSSIAN, per, Trudy Matematicheskogo Instituta AN SSSR, Vol XXVIII, 1949, pp 73-103.  
\*FTD MT 66-163

**Application of the Characteristics Method to Numerical Solution of Unidimensional Problems in Gas Dynamics**, by A. I. Zhukov,  
RUSSIAN, per, Trudy Matematicheskogo Inst im V. A. Steklova, No 58, 1960, pp 1-149.  
P910242167-V  
NASA TT F-298

**The Net Point Method for Nonstationary Navier-Stokes Equations**, by A. Kzhivitskiy, O. A. Ladyzhenskaya,  
RUSSIAN, per, Trudy Matematicheskogo Inst im V. A. Steklova, Vol XCII, 1966, pp 93-99.  
\*AEC

**On the Stability of Solutions of Stochastic Differential Equations**, by I. Gikhman, Ya. Dorogovtsev.  
RUSSIAN, per, Ukrainskiy Matemat Zhur, Vol XVII, No 6, 1965, pp 3-21.  
Dept of Navy 5415/APL/JHU T-2008

**Asymptotic Solution of the Systems of Linear Partial Differential Equations**, by N. I. Shkul,  
RUSSIAN, per, Ukrayinskiy Matematicheskyyi Zhurnal, Vol XVIII, No 6, 1966, pp 85-96.  
\*FTD-HT-23-975-67

Scientific  
Mathematical Sciences (Contd)

On the Structure of the Set of Solutions of  
Differential Equations With Lagging Argument,  
by V. F. Subbotin.  
RUSSIAN, per, Ukrainskiy Matemat Zhur, Vol XIX,  
No 1, 1967, pp 120-123.  
\*Dept of Navy/APL/JHU J-991

Hyperbolic Equations in Banach Space, by  
V. A. Pogorelenko, P. E. Sobolevskiy,  
RUSSIAN, per, Uspekhi Matemat Nauk, Vol  
XXII, No 1, 1967, pp 170-172.  
\*Dept of Navy/APL/JHU J-1008

On the Structure of the Set of Solutions of  
Differential Equations With Lagging Argument,  
by V. F. Subbotin.  
RUSSIAN, per, Ukrain Matemat Zhur, Vol XIX,  
No 1, 1967, pp 120-123.  
Dept of Navy 5416/APL/JHU T-2009

Ternary Computer Development Experience, by  
N. P. Brusentsov,  
RUSSIAN, per, Vestnik Moskovskgo Universiteta,  
No 2, 1965, pp 39-48.  
NLL RTS 3788  
On Loan Only

Iteration Process For Solving a Finite-  
Dimensional Contact Problem, by V. M. Fridman,  
V. S. Chernina.  
RUSSIAN, per, Zhur Vychis Mat i Mat Fiz,  
Vol VII, No 1, 1967, pp 160-163.  
Dept of Navy 5417/APL/JHU T-2010

Iteration Methods for Calculating Simple and  
Multiple Real Roots of Functions, by  
B. A. Zhiglevich.  
RUSSIAN, per, Zhur Vychis Mate i Mat Fiz,  
Vol VII, No 1, 1967, pp 165-167.  
\*Dept of Navy/APL/JHU J-995

Concerning Certain Properties and the Limit  
Theorem of a Simple Function of the ITO Random  
Integral, by Chia-kang Waung. 22 pp.  
CHINESE, per, Shu Hsueh Hsueh Pao (Acta  
Mathematica Sinica), Vol 14, No 4, 1964,  
pp 517-531. P100188167  
FTD-HT-66-607

Approximating an Indefinite Integral Using  
Chebyshev Polynomials - A Modification of the  
Procedure by Clenshaw and Curtis, by Siegfried  
Filippi, 11 pp.  
GERMAN, per, Numerische Mathematik, Vol 6,  
1964, pp 320-328. P911221267  
AEC ANL Tr-456

Scientific  
Mathematical Sciences (Contd)

Functional Analysis, by Yosida Kosaku,  
JAPANESE, bk, 1966, 458 pp.  
NLL 4223.25D

Mathematics and Scientific Organization of Pro-  
duction, by Sergiu Teodorovici, 10 pp.  
RUMANIAN, np, Cronica, 25 Mar 1967, p. 3.  
JPRS 40873

Mechanical, Industrial, Civil & Marine Engineering

Planning and Building Microregions,  
RUSSIAN, per, Arkhitektura SSR, No 7, 1966,  
pp 12-18.  
DIA LN 580-66

New Construction in L'Vov, by V. Shkvarikov,  
I. Smolyar, et al, 52 pp.  
RUSSIAN, per, Arkhitektura SSR, No 7, 1966,  
pp 50-52.  
DIA LN 580-66

Effect of Speed of Vat Machines on the Mechanical  
Properties of Board, by G. M. Bogomol,  
RUSSIAN, per, Bumazhnaya Promyshlennost, No 5,  
1965, pp 5-8.  
NLL RTS 3876  
On Loan Only

Development of State Standards and Norm Docu-  
ments for Construction in 1967, 8 pp.  
RUSSIAN, per, Byulleten' Stroitel'noy  
Tekhniki, No. 3, Mar 1967, pp. 9-12.  
JPRS 41438

Methods for Raising the Efficiency of Capital  
Investments in Rural Construction, 8 pp.  
RUSSIAN, per, Byulleten' Stroitel'noy Tekhniki,  
No. 4, Apr 1967, pp. 27-29.  
JPRS 41438

Distillation Desalinization Equipment in  
the City of Shevchenko (Diagram, Equipment  
Design, and Experience in Operation),  
by F.P. Zastrovskiy. 15pp.  
RUSSIAN, mono, Distillyatsionnaya Opresnitel'  
naya Ustanovka v.g. Shevchenko-Skhema, apparatur-  
noye oformleniye(?), 3-9 Oct. 1965  
JPRS 41,171

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Need for Improving Ferrous Metallurgy Construction,  
by V. Peredereyev and A. Galenko, 8 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 18,  
May 1967, pp. 27-28.  
JPRS 41263

Large-Panel Dwelling Construction in  
Azerbaijan, by T. Guseynov, 5 pp.  
RUSSIAN, per, Ekonomika Stroitel'stva, No 4, 1967,  
pp. 31-35.  
JPRS 41148

Determination of Basic Parameters of Machines  
for High-Speed Metal Forming; by Yu. P. Sogrishin.  
F. G. Suvorov, et al. 17 pp.  
RUSSIAN, per, Eksperimental'nyy Nauchno-  
Issledovatel'skiy Institut Kuznechno-Pressovogo  
Mashinostroyeniye, Novoye v Kuznechno-  
Shtampovom Proizvodstve, 1964, pp 43-57.  
FTD HT 66-375

Study of Pressworking of Steels in the  
Semi-Hot State, by P. D. Chudakov,  
V. D. Il'ich, et al, 10 pp.  
RUSSIAN, rpt, Eksperimental'nyy Nauchno-  
Issledovatel'skiy Institut Kuznechno-  
Pressovogo Mashinostroyeniye. "Novoye v  
Kuznechno-Shtampovom Proizvodstve",  
1964, pp 91-99.  
FTD HT 66-375

Rubber-Pad Method for High-Speed Stamping  
of Sheet Metal; by Yu. P. Sogrishin,  
F. G. Suvorov, et al. 35 pp.  
RUSSIAN, rpt, Eksperimental'nyy Nauchno-  
Issledovatel'skiy Institut Kuznechno-Pressovogo  
Mashinostroyeniye. "Novoye v Kuznechno-  
Shtampovom Proizvodstve", 1964,  
pp 130-135.  
FTD HT 66-375

Fifty Years of Transformer Construction in  
the USSR, by G. V. Aleksenko, 8 pp.  
RUSSIAN, per, Elektrotehnika, No 4, 1967,  
pp. 1-3.  
JPRS 41241

Calculation of Loss of Total Pressure in Diffuser  
Channels, by A. Sh. Dorfman.  
RUSSIAN, per, Energomashinostroyeniye, No 6,  
pp 29-31.  
\*FTD-HT-23-1052-67

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Comparative Characteristics of Solar Furnace  
Power Regulators, by A. V. Vartanyan, 7 pp.  
RUSSIAN, per, Geliotekhnika, No 6, 1966, pp.  
12-17.  
JPRS 41144

Power Parameters of the Solar Concentrator of  
the SV-1 Waterlift Unit, by D. I. Teplyakov,  
R. R. Aparisi, Ya. G. Kolob, R. A. Zakhidov  
and A. Annayev, 6 pp.  
RUSSIAN, per, Geliotekhnika, No 6, 1966, pp.  
31-36.  
JPRS 41144

Use of Excavator with Shaped Scoop, by  
N. S. Timichenko, A. A. Martynov,  
RUSSIAN, per, Gidrotehnika i Meliratsiya, No 5,  
1966, pp 50-53.  
ACSI J-2032  
ID 2204012867

Forecasting Suburban Transportation, by G. A.  
Gol'ts, 9 pp.  
RUSSIAN, per, Gorodskoye Khozaystvo Moskvy,  
No 4, Apr 1967, pp. 27-30.  
JPRS 41608

Construction of the "Tokamak" TM-3 Device  
by D. P. Ivanov, K. A. Razumova, US A M  
RUSSIAN, rpt, Institut Atomnoy Energii  
Im. I. V. Kurchatova, Moskva SSSR, 1966, 16p.  
\*FTD MT 24-88-67

Gas Chromatographic Analysis of Mixtures of  
Hydrogen, Carbon Monoxide and Methane, by  
A. A. Shutov, I. P. Kirillov.  
RUSSIAN, per, Iz Vysch Ucheb Zaved, Khim  
i Khim Tekh, Vol VII, No 4, 1964, pp 688-690.  
Dept of Navy 5440/APL/JHU T-2016

Enclosed Artificial Ice Skating Rings, by  
I. M. Geller, V. Ya. Kokorev, et al,  
RUSSIAN, per, Kholodil'naya Tekhnika, Sept  
1966, pp 45-47.  
DIA LN 104-67

Designs and Computations of Metal and Reinforced  
Concrete Supports for Electric Transmission  
Lines, by K. P. Kryukov, A. I. Kurnosov,  
RUSSIAN, rpt, Konstruktsiy i Raschet Metallich-  
eskikh i Zhelezobetonnykh opor Liniy Elektro-  
peredachi, 1964, pp 7-55, 68-89,  
DIA LN 143-67



**Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)**

Brief Review of Modern Methods for Automatic Control of Grinding and Classifying Processes, by M. L. Gol'din,  
RUSSIAN, bk, Kontrol' i Avtomatizatsiya Protsessov Drobleniya i Izmel'cheniya rud, Chaps 1-4.

NLL RTS 3756  
On Loan Only

Manufacture of Chrome Pigskins in a Semi-Automatic Line, by V. S. Ostrovskiy, V. A. Zhuravskiy, et al,  
RUSSIAN, per, Kozhevenno Obuv Prom, Vol VI, No 9, 1964, pp 23-25.  
NLL RTS 3786  
On Loan Only

Experimental Investigation of the Influence of Vacuum on the Process of the Contact Destruction of Steels by S. V. Pinegin, V. M. Gudchenko.  
RUSSIAN, per, Mashinovedeniye AN SSSR, No 1, 1965, pp 119-126.  
\*FTD MT 67-57

Changes Introduced in Delivering Supplies to Construction Sites, by R. Lerman, 7 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabazheniye, No 4, Apr 1967, pp. 45-49.  
JPRS 41240

Further Remarks on Participation in Calculations for Transit Deliveries, by V. Odess, 5 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabazheniye, No. 3, Mar 1967, pp. 72-75.  
JPRS 41340

Mechanization and Automation of Manual Labor Operations in the Fishing Industry, by A. V. Terenteva.  
RUSSIAN, bk, Mekhanizatsiya i Avtomatizatsiya Trudovnikh Protsessov v Rybnoi Promy, 1966, 208 pp.  
\*CFSTI TT 67-59061

Mechanization and Automation in Diesel Building, by V. Alyushinskiy, 15 pp.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, No. 3, 1967, pp. 4-7.  
JPRS 41072

Production and Continuous Casting of Boiler Plate Steel, by F. N. Grigor'ev, V. G. Osipov  
RUSSIAN, per, Metallurgicheskaya i Gornorudnaya Promyshlennost', 1964, No 6, pp 69-70  
HS No 7221

**Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)**

Transportation of Lumber in Packages, by N. Sterkin.  
RUSSIAN, per, Morskoy Flot, No 8, 1960, pp 8-10.  
\*ACSI J-2997  
ID 2204032367

Features and Methods of Improving the Technical Operation of Cranes in the Ports of the Far North,  
RUSSIAN, per, Morskoy Flot, No 9, Sept 1966, pp 10-12.  
DIA LN 649-66

Improved Organization of Work Increases Efficiency of Construction, by I. Shramkov and M. Kremenitsa, 5 pp.  
RUSSIAN, per, Na Stroykakh Rossii, No. 10, 1964, pp. 3-4.  
JPRS 41309

Combined Flow Method of Erecting an Air-Fractioning Plant Building, by Ya. Kagan, 7 pp.  
RUSSIAN, per, Na Stroykakh Rossii, No. 12, Dec 1964, pp. 2-3.  
JPRS 41309

Dam Planned at Chembulak for Flash-Flood Protection, by M. Dokuchayev, 6 pp.  
RUSSIAN, per, Nauka i zhizn', No 3, Mar 1967, pp. 100-103.  
JPRS 41327

Controlled Explosion Finds Successful Use in the Dam Construction, by A. Romashov and B. Melovatskiy, 8 pp.  
RUSSIAN, per, Nauka i zhizn', No 3, Mar 1967, pp. 104-107.  
JPRS 41327

Selection of the Drive for a High-speed Metal Forming Machine, by I. B. Matveyev.  
RUSSIAN, bk, Novoye v Kuznechno-shtampovom Proizvodstva, Moskva, 1964, Book 8, pp 58-62  
\*FTD-HT-23-1070-67

Fundamentals of Gas-Dynamics and Their Application to the Design of Supersonic Wind Tunnels, I. A. Panichkin, et al.  
RUSSIAN, bk, Osnovy Gazovoy Dinamiki i ikh Prilozheniye k Raschetu Sverkhzvukovykh Aero-Dinamicheskikh Trub.  
\*FTD-MT-67-66

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Some Proportion of the Pyrolytic Carbide and Nitrides of Group IV Metals, by V. S. Neshpor, RUSSIAN, per, Poroshkovaya Metallurgiya, Vol VII, Feb 1967, pp 65-69.  
\*NASA TT F-11,180

Determination of the Rate of Lifting of the Hull in Ramming Operations of an Icebreaker, by Ye. Yu. Petrov.  
RUSSIAN, per, Problemy Arktiki i Antarktiki, No 24, 1966, pp 68-72.  
\*Dept of Navy ONI

Stability of Joints Between Self Supporting Walls and Building Framework, by A. A. Shiskin, 9 pp.  
RUSSIAN, per, Proyablennoye Stroitel'stvo, No 3, Mar 1967, pp. 23-25.  
JPRS 41316

On the Possibility of Applying Cellulose Treatment for Rot Resistance in the Fishing Industry, by A. S. Pavlova,  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964, pp 47-49.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Equipment for Industrial Manufacture of Block Antibiotic Ice.  
RUSSIAN, per, Rybnoe Khoz, Vol XL, No 12, 1964, pp 68-70.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Hydrodynamic Resistance of Synthetic Fishing Nets, by K. L. Pavlov,  
RUSSIAN, per, Rybnoe Khoz, Vol XLI, No 1, 1965, pp 50-52.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Determining the Power of Vessel Lighting for Fishing with Lights, by A. N. Shabanov, 5 pp.  
RUSSIAN, per, Rybnoe Khoz, No. 6, 1966, pp. 43-46.  
JPRS 40888

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Experimental Hydraulic Fish Pump, by S. S. Torban and V. I. Zherebchikov, 5 pp.  
RUSSIAN, per, Rybnoe Khoz, No. 6, 1966, pp. 47-49.  
JPRS 40888

First Vessels Equipped with Electric Trawls, by V. A. Shentyakov,  
RUSSIAN, per, Rybnoe Khoz, No 8, 1966, pp 32-34.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Installation of Signal Lights on Fishing Vessels, by V. M. Luk'yanchenko,  
RUSSIAN, per, Rybnoe Khoz, No 8, 1966, pp 37.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Line for Washing, Portioning, Predrying and Breeding Fish at the Klaipeda Canning Factory, by Yu. Maslennikov,  
RUSSIAN, per, Rybnoe Khoz, No 12, 1966, pp 68-70.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Polymer Protection for Screw Propellers and Bushings in Tail Shafts, by I. Mogilevskiy.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 16-18.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Reducing Wear and Tear of Trawl Roller Wires of a Stern Factory Trawler, by V. V. Mironov.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 38-40.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Mechanized Gas-Oil Frying Oven, by Yu. V. Maslennikov.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 48-51.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

**Scientific**  
**Mechanical, Industrial, Civil & Marine Engineering (Contd)**

Fish Breeding Machines, by Yu. I. Tikhonov.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967  
pp 55-56.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Evaporation Devices for Frying Ovens, by  
I. G. Shif.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
pp 57-59.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Packing of Delicatessen and Semifinished  
Products in Polymeric Film Material, by  
V. M. Bykova.  
RUSSIAN, per, Rybnoe Khoz, 3, 1967,  
pp 60-62.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

The Problem of Tin Can is Solved.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967,  
p 77.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Some Induces on the Operation of "Gotavarken"  
Engines DM7/60/1500 and VGS-7U, by  
G. F. Levshin,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 22-24.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Demountable and Folding Buoy Support,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 44.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Use of Lacquered Chrome-Plated Tin in the  
Fish Canning Industry, by K. Ya. Val'ter,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 57-58.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

**Scientific**  
**Mechanical, Industrial, Civil & Marine Engineering (Contd)**

Improvement of the MAR Rotary Freezing Unit,  
by S. Ya. Mekenitskiy, N. C. Berov,  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 59-62.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Comparative Durability of Floors Made  
of Cement, Polymer Cement and Plastic Concrete  
Without Cement, by A. V. Chuiko,  
RUSSIAN, per, Sakharaya Prom, Vol XL, No 3,  
1966, pp 35-40.  
NLL RTS 3905  
On Loan Only

Effects of Autoclave Design on the Oxidising  
Leaching Rate, by Z. L. Berlin,  
RUSSIAN, per, Sbornik Nauch Trud Gos  
Nauchno-Issled Inst Tsvet Met, No 18, 1961,  
pp 438-453.  
NLL RTS 3815  
On Loan Only

Plans To Lay Foundation for Rapid Development  
of Construction Materials and Technology, by  
M. Vorobiyevskiy, 8 pp.  
RUSSIAN, np, Stroitel'naya Gazeta, 24 May 1967.  
pp. 1-2.  
JPRS 41608

Comparison of the Operation of Home-Manufac-  
tured High-Production Cotton Board Cards, by  
B. M. Vladimirov, B. G. Goncharov,  
RUSSIAN, per, Tekstil'naya Promyshlennost,  
Vol XXV, No 11, 1965, pp 17-20.  
NLL RTS 3690  
On Loan Only

A Pneumatic Diffusionary Distributor for  
Cotton, by N. A. Zaks,  
RUSSIAN, per, Tekstilnaya Promyshlennost,  
Vol XXVI, No 2, 1966, pp 69-72.  
NLL RTS 3882  
On Loan Only

Some Methods of Pattern Recognition Using Threshold  
Elements, by A. B. Shubin.  
RUSSIAN, per, Trudy Moskva, Institut Avtomatiki i  
Telemekhaniki. Samoobuchayushchiyesya Avtomati-  
cheskiye Sistemy, 1966, pp 94-101  
\*FTD-HT-23-1044-67

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

The Nature of the Interaction of Active Dyes with Hair Keratin, by P. O. Sazykina, Yu. N. Aronina, et al, RUSSIAN, per, Tr Msok Tekhnol Inst Legkoi, No 30, 1964, pp 83-90.  
NLL RTS 3802  
On Loan Only

Classification of Coals by the Adhesion Hydraulic Process, by V. A. Malinovskiy, RUSSIAN, per, Ugol, No 1, 1958, pp 35-38.  
NLL RTS 3819  
On Loan Only

On the Mechanism of Gas Diffusion in a Simple Liquid, by I. V. Matyash, UKRAINIAN, per, Ukrainskiy Fiz Zhur, Vol XII, No 1, 1967, pp 52-55.  
\*Dept of Navy/APL/JHU J-996

Automatic Analyzer of Random Processes, by V. D. Plakhotnikov, O. F. Vladimirov, RUSSIAN, Patent No 160752.  
\*FTD HT 23-987-67

Some Data on Boilers in Bulgaria, by Iliya Bozhukov and Khaim Gozes, 6 pp. BULGARIAN, per, Energetika, No. 3, Mar 1967, pp. 29-31.  
JPRS 41431

Improvement in Reverse Control for Trailers, by ,P.C.L. Lacroix, 16 pp, BELGIUM, Patent No 518,303.  
Dept of Commerce  
Patent Office.

Frame for a Chair Bottom and Method for Manufacturing Such a Frame, by , J.G.J. Erven, 8 pp. BELGIAN, Patent No 565,164.  
Dept of Commerce  
Patent Office

The Advanced Experience in Hard Alloy Welding, 6 pp. CHINESE, per, Chi-hsieh Kung-jen -- Je Chia-kung, No. 2, 22 Feb 1966, pp. 7-9, 11.  
JPRS 41345

The Dressing Quality of Iron Ores in China, by Tsai Hui-chih (5991 2037 2535), 19 pp. CHINESE, per, Ching-kuo Ti-chih, No 5, May 1960, pp. 33-39.  
JPRS 41649

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

New-Type Cables, by Tzu-tu Lung. CHINESE, per, K'o Hsueh Hua Pao, No 6, 1965, pp 182-183.  
\*FTD HT 23-1006-67

A General Description of Vacuum Techniques, by Pen-Hui Kao. CHINESE, per, K'o Hsueh Ta Chung, No 11, 1965, pp 7-8.  
\*FTD HT 23-1005-67

Specification of Existing Port Cargo Handling Machines, 79 pp. CHINESE, per, Peoples Communication Press, 1965, pp 21-121, 133-168, 180-188, 199-208, 212-219, 221.  
DIA LN 702-66

On the Commercial Use of the Scandium Carbide-Titanium Carbide System, by F. Petru. CZECH, per, Chemicky Prumysl, Vol XVI, No 11, 1966, pp 681-683.  
\*Dept of Navy/APL/JHU J-988

200 KM Per Hour - On Schedule, by P. Junil Brask, 7 pp. DANISH, per, Dansk Lokomotiv Tidende, Vol LXVII, Jan 1967, pp 10-12.  
DIA LN 198-67

Facts About "Skane", DANISH, rpt, SJ-NYTT 25(2), 2 Feb 1966, pp 3.  
DIA LN 200-67

New Marking of Freight Cars, DANISH, rpt, SJ-NYTT 25(2), 2 Feb 1966, pp 4.  
DIA 200-67

Reconstruction at Alvisjo, DANISH, rpt, SJ-NYTT 25(2), 2 Feb 1966, pp 5.  
DIA 200-67

Concrete Train Ferry, by Erik Upmark, DANISH, rpt, SJ-NYTT 25(2), 2 Feb 1966, pp 10-11.  
DIA LN 200-67

A Photosensitive Device and its Manufacturing Process, DUTCH, Patent 645,119, Sept 14, 1964.  
ATS 1182-FV

**Scientific**  
**Industrial, Civil & Marine Engineering (Contd)**

Saïnes Canal and Its Reconstruction, by  
 Jan-Erik Jansson, 12 pp.  
 FINISH, per, Tekniskt Forum, No 15, 1964,  
 pp 544-551.  
 DIA LN 264-67

Effect of Alternate Temperature Variations on  
 Prestressing Steels. Cancellation of Relaxation,  
 by M. Dumas, 41 pp.  
 FRENCH, per, Ann. Inst Tech Batiment Trav.  
 Publiis, Vol 18, 1965, pp 1254-1279.  
 AEC ORNL Tr 1348

Liquids in Cardboard Boxes.  
 FRENCH, per, Emballages, No 243, Mar 1967,  
 pp 106-112.  
 \*ACSI J-2880  
 ID 2204030067

Practical Test of Automatic Plugging Indicators,  
 by J. P. Diezale, 21 pp.  
 FRENCH, rpt, IAEA Symposium on Alkali Metals,  
 Paper SM 85/4. P911223367  
 AEC ORNL Tr-1605

Means of Experimentation and Research of the  
 Hull Testing Basin of the Navy, by R. Brard,  
 25 pp.  
 FRENCH, per, La Revue Maritime, No 223, Jul 1965,  
 pp. 890-911.  
 JPRS 41118

An Analysis of the Influence of the Structure,  
 of the Grain Size and of Heat Treatment on the  
 Creep of 18/11 Titanium-Steel Tubes for Steam-  
 Generating Stations, by J. Dedieu, A. Salmont,  
 T. Le Grand.  
 FRENCH, per, Rev. Met., Vol 62, 1965, pp 229-241.  
 AEC ORNL Tr-985

Modernisation of the Juliana Canal Achieved,  
 by E. H. 16 pp.  
 FRENCH, per, Revue de la Navigation Interieure  
 et Rhénane, No 1, 1967, pp 2-10.  
 DIA LN 336-67

The Relationship Between Geometric Simplexes and  
 Flow Conditions in Single-Phase Isothermal  
 Models of Cyclone Furnaces, by N. Penoyu,  
 FRENCH, per, Revue Roumaine des Sciences  
 Techniques Serie Electrotechnique et Ener-  
 getique, Vol XI, No 2, 1966, pp 217-236.  
 NLL RTS 3889  
 On Loan Only

**Scientific**  
**Industrial, Civil & Marine Engineering (Contd)**

Glass As A Building Material, by W. Schulze,  
 6 pp.  
 GERMANY, per, Baustoffindustrie, No 3, 1964,  
 pp 86-90.  
 DIA LN 266-67A

Construction of the Upper Rhine,  
 GERMANY, per, Binnenschiffahrts-Nachrichten, Vol  
 XXI, No 37, Edition A, Sept 1966, pp 658.  
 DIA LN 598-66B

Construction of the Rhine Between Neuburgweier/  
 Lauterburg and St. Goar,  
 GERMANY, per, Binnenschiffahrts-Nachrichten, Vol  
 XXI, No 37, Edition A, Sept 1966, pp 660-662.  
 DIA LN 598-66B

Bielstein Tunnel By-Pass for the Electrification  
 of the Rubelandbahn Railroad, by G. Warnecke,  
 GERMANY, per, Deutsche Eisenbahntechnik, Vol XII,  
 No 10, 1964, pp 463-467.  
 DIA LN 251-67

Fabrication of Ferrite Core Matrices for In-  
 formation Memories, by M. Ebenhog,  
 GERMANY, per, Feingeratetechnik, No 1, 1966,  
 pp 13-18.  
 \*FTD-HT-23-973-67

New Developments in Passenger Coach and  
 Refrigerator Car Bogies, by Werner Berthel,  
 11 pp.  
 GERMANY, per, Dtsch. Eisenbahntechnik, No 5,  
 May 1967, pp. 216-219.  
 JPRS 41621

On the Deposition of Radiiodine in Filters of  
 a Small Reactor Safety Device (Auer), by J.  
 Hacke, W. Jacobi, K. Tramm, 26 pp.  
 GERMANY, per, Bahn-Meitner-Institut fuer  
 Kernforschung. MT-348.  
 AEC Tr 6829

The Development of an Efficient Construction  
 Material Industry; Tapping and Using Under-  
 ground and Water Resources, 13 pp.  
 GERMANY, rpt, Handbuch der Deutschen Demokratis-  
 chen Republik, 1963, pp 453-461; 441-447.  
 DIA LN 112-67

Present State and Trends of Non-Destructive Testing in the Federal Republic of Germany, by F. Michalski,  
GERMAN, per, Materialprüfung, No 4, 1967, pp 113-119.  
\*ACSI J-2807  
ID 2204027567

The Determination of the Stability Probability of Stochastic Systems, by H. Bunke, 5 pp.  
GERMAN, per, Monatsberichte Akademie der Wissenschaften Zu Berlin, Vol V, No 5, 1963, pp 277-280. P100184467  
FTD HT 66-429

Engineering Method for Determining the Complex Radiation Diagram of Reflector Antennas. Part 1, by R. Jahn.  
GERMAN, per, Nachrichtentechnik, No 6, 1966, pp 201-208.  
\*FTD-HT-23-1043-67

Trends in the Conveyance of Bulk Goods on Inland Waterways, by F. Hartung, 42 pp.  
GERMAN, per, Schiff und Hafen, Vol XIII, No 5, 1961, pp 379-480.  
DIA LN 166-67

Fundamental Physical Problems in Size Reduction, by Hans Rumpg,  
GERMAN, per, Symp. Zerkleinern Frankfurt am Main, Apr 10-13 1962, pp 1-30.  
\*AEC LASL

The Effect of the Casing on Noise Radiated from Gear Boxes, and Constructive Measures for Its Reduction, by J. Hermann,  
GERMAN, rpt, Thesis for Doctrate at Rhein Westphalia Technical High School, Nov 1966, P944138967  
NSTIC Trans No 1647

Pneumatic Elements fro Guidance Control Technology, by H. Topfer,  
GERMAN, per, Zeitschrift fur Messen, Steuern, Regeln, Vol V, No 6, 1962, pp 279-282.  
\*AEC

Mechanical Conveying, Floor Type.  
GERMAN, per, Zeitschrift fur das Post-und Fernmeldewesen, No 8, Apr 1967, pp 279-280.  
\*ACSI J-2938  
ID 2204020767

Resilient Bearing for Knife-Edges of Measuring Instruments, Especially Scales, by Joh Bush, 5 pp.  
GERMAN, Patent No 235,929.  
Dept of Commerce  
Patent Office

Device for Generating Ellipses Over an Arbitrary Pair of Conjugate Diameters, by E. Trachsler,  
GERMAN, Patent No 266,659.  
NASA TT F-10,947

Precision Device for Absorption Spectrum Analysis, by Walter Rollwagen, Karl Maltershofer, Eduard Futschik, 3pp.  
GERMAN, Patent No 266,659.  
Dept of Commerce  
Patent Office

Electrodynamic Railway Safety Devices, 45 pp.  
HUNGARIAN, rpt, Elektrodinamikus Vasuti Biztosito Berendezesek, 1965, pp 7-19, 33-61, 92-100.  
DIA LN 661-66

Increasing the Carrying Ability of Antifriction Bearings, by Milan Kubinek.  
HUNGARIAN, per, Gep, No 4, 1966, pp 147-152  
\*FTD-HT-23-1051-67

The Railroad's Tasks in 1967, by Karoly Rodonyi, 11 pp.  
HUNGARIAN, per, Koslekedesi Koslony, No 9, 26 Feb 1967, pp. 150-152.  
JPRS 40979

X. Construction Industry. 1. Constructing Fitting, Renovating,  
HUNGARIAN, rpt, Magyarorszag Cimtara, Jan 1, 1967, pp 323-333.  
DIA LN 258-67

Recent Developments in Pneumatic Automation, by Laszlo Halm, 11 pp.  
HUNGARIAN, per, Meres es Automatika, Vol X, No 7, 1966, pp 194-198.  
AEC 80-T-65-764

Machine Industry Products at the Budapest International Fair, 6 pp.  
HUNGARIAN, per, Musaki Klet, 18 May 1967, p. 5.  
JPRS 41431

**Scientific**

**Scientific, Mechanical, Industrial, Civil & Marine Engineering (continued)**

**Tasks of Mechanization of the Guidance and Direction of Railroad Operations**, by Adilbert Umyi, Andrew Fekete, HUNGARIAN, per, Vasut, Vol XVI, No 6, 1966, pp 20-23.  
DIA LN 636-66A

**Anti-Noise Air Cleaner for the Intake of Internal Combustion Engines**, by Alfred Knecht, 10 pp, ITALIAN, Patent No 537,049  
Dept of Commerce  
Patent Office

**A Comparative Test on the Anti-Fouling of the Ultrasonic Wave on Hull-Fouling Life**, by S. Inoue, S. Abe, et al, JAPANESE, per, Bulletin of the Faculty of Fisheries Nagasaki University, No 22, Mar 1967, pp 121-128.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

**On the Test of Sectional Bottom Painting in Nagasaki Harbor - I**, by S. Abe, S. Yada, JAPANESE, per, Bulletin of the Faculty of Fisheries Nagasaki University, No 22, Mar 1967, pp 129-.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

**Concerning the Function of the Abrasive Grains of Grinding Wheels in Mirror Finishing**, by K. Yokokawa, K. Shimada, 40 pp. JAPANESE, per, Bull. Jap. Soc. Grind. Eng., Vol 3, 1963, pp 1-17  
ABC HPP Tr-18

**A Quick Response Ionization Survey-Meter**, by Teruichi TOMURA, 22 pp. JAPANESE, per, Oyo Buturi, Vol 32, No 6, 1963, pp 391-397.  
ABC MSJ Tr-3

**Summary of Road Construction Projects for 1966**, JAPANESE, per, Road Construction, No 220, May 1966, pp 4-10.  
DIA LN 490-66B

**The Plan of the Tokyo Loop-Line and Its Significance**, JAPANESE, per, Road Construction, No 224, Sept 1966, pp 4-9.  
DIA LN 630-66C

**Research Program of the Polish Packaging Center for 1967-1968**, by S. Krogulski. POLISH, per, Opakowanie, No 2, 1967, pp 1-3.  
\*ACSI J-2973  
ID 2204031967

**Barrier Properties of Papers Impregnated With Paraffin Containing Corrosion Inhibitors**, by E. Kirkor, et al. POLISH, per, Opakowanie, No 2, 1967, pp 6-7.  
\*ACSI J-2973  
ID 2204031967

**Statistical Methods of Defining Low Water Stages-II**, by Maria Zielinska, POLISH, per, Przegląd Geofizyczny, Vol IX(XVII), No 2, 1964, pp 109-120.  
CFSTI TT 65-50385

**Electric Traction Vehicles of the Polish Railroads**, by Janusz Skonieczki, 12 pp. POLISH, per, Przegląd Kolejowy Elektrotechniczny, No 3, Mar 1967, pp. 67-72.  
JPRS 41296

**Resistance of Soil to Excavating With Multi-bucket Wheel Excavators**, by Waldemar Kolkiewicz, 8 pp. POLISH, per, Przegląd Mechaniczny, No 3, 1967, pp 73-76.  
ACSI J-2181  
ID 2204015767

**Experimental Design Description of an Hydrostatic Transmission Applied to Drive a Fork Truck**, by Jerzy Zaskurski, 9 pp. POLISH, per, Przegląd Mechaniczny, No 6, pp 167-171, 25 Mar 1967  
ACSI J-2574  
ID 2204022167

**Methods for Determining the Time Constant of Single-Shaft**, by B. Kulakowski. POLISH, per, Technika Lotnicza, No 10-11, 1964, pp 266-272.  
\*FTD-HT-23-1057-67

**Provisional Instructions for Hot Air Component Test Model 2**, 49 pp. SWEDISH, bk, Provisorisk Instruktion for Varm-luftsaggregat Forsöksmodell 2, 17 pp.  
ACSI J-2287  
ID 2204016867

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Contributions to the Study of the Destruction by Cavitation of Some Steels Obtained by Electric Arc Alloying, by M. Hrelescu, A. Vas, et al,  
RUMANIAN, per, Studii si Cercetari de Metalurgie, Vol X, No 2, 1965, pp 347-357.  
\*FTD-HT-23-969-67

Yugoslavia's First Floating Laboratory for Testing River Ships and Waterways, by Svetozar Colic, 5 pp.  
SERBO-CROATIAN, per, Tehnika, No. 5, May 1967, pp. 885-887.  
JPRS 41528

German Transeurope Locomotive,  
SWEDISH, per, Jarnvagen, Tidskrift for Transprotfragor, No 12, 1966, pp 5.  
DIA LN 199-67

Railway Car Coupling,  
SWEDISH, per, Jarnvagen, Tidskrift for Transprotfragor, No 12, 1966, pp 8.  
DIA LN 199-67

The Train Ferry "Skane",  
SWEDISH, per, Jarnvagen, Tidskrift for Transprotfragor, No 12, 1966, pp 11.  
DIA LN 199-67

Remote Control in Railway Operation, by G. Knall, 11 pp.  
SWEDISH, per, Nordisk Jarnbanetidskrift, No 12, 1966, pp 405-413.  
DIA LN 262-67

Methods & Equipment

Diode Logic Elements Built Around Printed Microstrips for SHF Range, by V. A. Beruashvili, B. A. Panasenko, 15 pp.  
RUSSIAN, per, AN Gruzinskoy SSR, Institut Kibernetiki, 1964, pp 1-19. P100176867  
FTD MT 67-08

Utilisation of Equipment in Machine Building. 8 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 15, Apr 1967, pp. 28-29.  
JPRS 41073

Scientific  
Methods & Equipment (Contd)

Method of Optimizing the Development of Power Systems With the Use of Mathematical Models, by L. A. Melent'yev, et al.  
RUSSIAN, per, Izvestiya AN SSSR, Energetika i Transport, No 5, 1964, pp 531-542.  
\*FTD-MT-67-48

Coordination of Plans of Delivery and Shipment of Freight, by M. Gordon, 8 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, No. 3, Mar 1967, pp. 35-40.  
JPRS 41340

Three Articles on: Determination of the Relation Between the Subjective Quality and the Physical Properties of the Photographic Pictures, by Klaus Biedermann,  
GERMAN, per, Photographische Korrespondenz, Vol CIII, 1967, No 1, pp 5-14; No 2, pp 25-31; No 3, pp 41-48.  
\*ACSI J-2839  
ID 2204028167

Modernizing Technological Equipment Aboard the "Pionersk" Floating Base, by N. P. Muratov.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 46-47.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Method of Making Electrophotographic Paper, by N. N. Markevich,  
RUSSIAN, Patent No 171,262.  
ATS RJ-4685

Method of Suppressing False Signals by A. G. Sokoliiskiy, V. N. Orlov.  
RUSSIAN, per, Patent 177458, 27 Aug 64, pp 1-2.  
\*FTD HT 23-1008-67

Surface Tension of Photographic Emulsions, Part 2, by I. Tusek,  
CZECH, per, Kem. Ind. (Zagreb), Vol XIII, No 8, 1964, pp 617-621.  
ATS CJ-4698

Device for the Reproduction of a Photograph, DUTCH, Patent 6,413,480. May 20, 1965.  
ATS 1167-DU



Scientific  
Methods & Equipment (Contd)

Photosensitive Compositions Suitable for  
Photography and Photographic Reproductions,  
FRENCH, Patent 1,303,075, Jul 30, 1962.  
ATS 1186-FJ

Photosensitive Device and its Manufacturing  
Process.  
FRENCH, Patent 1,385,209, Nov 30, 1964.  
ATS 1184-FJ

Photosensitive Device.  
FRENCH, Patent 1,385,210, Nov 30, 1964.  
ATS 1185-FJ

Method and Apparatus for the Production  
of Pictures by Electrophotographic Means  
by A. Lieb.  
GERMAN, Patent 1,156,308, Oct 24, 1963.  
ATS 1181-GJ

Process for the Development of Electro-  
photographic Images, by K. Bar, et al.  
GERMAN, Patent 1,161,479, Jan 16, 1964.  
ATS 1180-GJ

Studies on Transparent Substrate Films, part 2,  
Reduction of Surface Resistivity of Cellulose  
Diacetate by Laminating a Transparent Cuprous  
Iodide Layer, by Y. Hayashi, et al,  
JAPANESE, per, Denshi Shashin, Vol VII, No 1,  
1966, pp 10-14.  
ATS JJ-4687

Preparation and Properties of Photoconductive  
Evaporated CdS-Cu-CI Films,  
JAPANESE, per, Denshi Shashin, Vol VII, No1,  
1966, pp 15-23.  
ATS JJ-4690

Measurement of the Triboelectric Characteristics  
of Powder Developers for Electrophotography, by  
R. Seimiya, Y. Mitsuhashi,  
JAPANESE, per, Denshi Shashin, Vol VII, No 1,  
1966, pp 31-36.  
ATS JJ-4689

Navigation, Communications, Detection &  
Countermeasures

Point Moorings for Tankers, by V. Zhurilov,  
L. Muchnik, 8 pp.  
RUSSIAN, per, Morskoy Flot, Vol VIII, 1966,  
pp 41-42.  
DIA LN 332-67

Vityaz in the Pacific Ocean -- 38th Cruise of the  
"Ship of Science", by V. G. Kort.  
RUSSIAN, per, Priroda, No 1, 1967.  
\*Dept of Navy ONI

Improvement of the Dolphin Sonic Depth Finder,  
by A. G. Lapin.  
RUSSIAN, per, Rybnoe Khoz, No 11, 1966, pp 57.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Bifocal Sonar (Developed by the British Ad-  
miralty),  
RUSSIAN, per, Rybnoe Khoz, No 4, 1967, pp 39.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Precision Sighting, by V. Andryanov, 7 pp.  
RUSSIAN, per, Sovetskiy Voin, 1966, pp 8-12.  
DIA LN 109-67

New Emanation? Possibly. Submarines Hear, But...  
Why is the Green Laser Needed Where is There a  
Way Out?, by A. Baksanskiy. 5 pp.  
RUSSIAN, per, Starshina - Serzhant, Feb 1967.  
Dept of Navy tr 5392 ONI 2397

Doppler Method in Navigational Use of Artificial  
Earth Satellites, by Ye. N. Perevezentsy, 16 pp.  
RUSSIAN, per, Trudy TsNII, No 73, 1966, pp.  
65-76.  
JPRS 41232

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

One Day on the Black Sea Coast, by N. Kishinevskiy,  
Yu. Klement'yer, 14 pp  
RUSSIAN, per, Vodnyy Transport, Apr 1967, pp 5.  
DIA LN 333-67

The Technical Performance of Non-Pulse Radar  
System (Part I & II), by T'ao Wang-p'ing  
(7118 2998 1627), 25 pp.  
CHINESE, per, Wu-hsien-tien Chi-shu, Part I;  
No 5, 11 May 1966, pp. 2-6; Part II: No 6,  
11 Jun 1966, pp. 21-25.  
JPRS 41156

Measurement of Low Frequency Vibrations in  
Big Helicopters and Their Transmission to the  
Pilot, by H. Seris, R. Auffret.  
FRENCH, rpt, AGARD Collected Papers Presented  
at the 22nd Meeting of the AGARD Aerospace  
Medical Panel, Sept 1965, pp 343-354.  
NASA TT F-471

How Has Dutch River Shipping Conquered the  
European Navigable Waterways, by Paul Gache,  
FRENCH, per, Bulletin des Transports, No 1294,  
Sept 1966, pp 476-481.  
DIA LN 67-67

Belgian Inland Navigation, 59 pp.  
FRENCH, per, Echos des Communications, No 2,  
1966, pp 73-133.  
DIA LN 69-67

Ground Communications at the Pacific Test  
Center, by Hodot, 12 pp.  
FRENCH, per, La Liaison des Transminnins,  
No 42, Nov-Dec 1966, pp 15-22.  
DIA LN 108-67

French Expert Outlines Development and Nature  
of Inertial Navigation, by P. Hugon, 18 pp.  
FRENCH, per, La Revue Maritime, Feb 1964,  
pp. 190-206.  
JPRS 41031

The Navy and the Pacific Experimental Center. 24pp  
FRENCH, per, La Revue Maritime, No 236, Oct. 1966  
pp 1129-1148.  
Dept of Navy tr 5209 ONI tr 2323

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

At the Congress of Dutsch Inland Navigation,  
5 pp.  
FRENCH, per, Revue de la Navigation Interieure  
et Rhenance, No 22, Dec 1966, pp 849-850.  
DIA LN 66-678

Traffic on the Austrian Danube in 1965,  
GERMAN, per, Binnenschiffahrt, Jul 1966,  
pp 2887-2889.  
DIA LN 68-67

Effects of the Phonetic Excitation Function in  
Speech-compressing Devices, by W. Tscheschner.  
GERMAN, per, Nachrichtentechnik, No 11, 1965,  
pp 432-436.  
\*FTD-HT-23-1042-67

The Current Problems of Internal Navigation  
of Venetia, by Roberto Tognazzi, 12 pp.  
ITALIAN, per, Trasporti Pubblici, 1966,  
pp 99-104.  
DIA LN 74-67

On the Thrust of "the Nagasaki-maru" in Keep-  
ing Anchoring in Strong Wind, by S. Abe,  
JAPANESE, per, Bulletin of the Faculty of  
Fisheries Nagasaki University, No 22, Mar  
1967, pp 115-120.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Expansion of Telephone Services, 7 pp.  
PORTUGUESE, per, Telebrasil Noticiario, No  
77/78, Jul-Dec 1966, pp 10-16; 19-20.  
DIA LN 87-67A

Scientific  
Nuclear Science & Technology

Showers Formed in Lead by Gamma-Quanta With Energies of 0.1 to 1 GeV, by O. A. Zaimidoroga, Yu. D. Prokoshkin, V. M. Tsupko-Sitnikov, 11 pp. RUSSIAN, rpt, JINR-P-2990. F911224067 AEC ORNL Tr-1672

Correlation of Resonance Parameters of Fissionable Nuclei, by E. V. Gai, N. S. Rabotnov. RUSSIAN, rpt, FRL-56. \*AEC IA Tr-67-58

The Loss Cone Instability in the Stellarator, by A. A. Galayev, 10 pp. RUSSIAN, rpt, Preprint No 10, Institute of Nuclear Physics, Siberian Branch, USSR Academy of Sciences, Novosibirsk, 1966, pp 1-11. F911223567 AEC NP Tr-1530

Digital Follow-Up System for Nuclear Engineering, by Pavel Kovanits, Yaroslav Rygl, 9 pp. RUSSIAN, per, Atomnaya Energiya, Vol 21, No 2, 1966, pp 116-120. F911223467 AEC ANL Tr-469

Production of Positrons During Bombardment of Thick Foil by Fast Electrons, by A. V. Bautin, V. M. Galitskiy, RUSSIAN, per, Atomnaya Energiya, Vol XXI, No 2, 1966, pp 126-127. NASA TT F-10,932

The "BN-350" and "BOR" Fast Reactors, by A. I. Leypunskiy, I. I. Afrikantov, V. V. Stekol'nikov, O. D. Kasachkovskiy, V. V. Orlov, M. S. Pinkhasik, Yu. Ye. Bagdasarov, R. P. Baklushin, I. V. Milovidov, A. A. Rineyskiy, I. A. Kusnetsov, Yu. A. Zakharko, Yu. N. Koshkin, V. I. Shiryayev, S. M. Blagovolin, I. D. Dmitriyev, I. S. Golovlin, and B. A. Tachkov, 19 pp. RUSSIAN, per, Atomnaya Energiya, Dec 1966, Vol 21, No 6, pp. 450-462. JPRS 40684

Radiation Conditions in the Vicinity of the Novo-Voronezhskaya Atomic Power Station, by A. M. Petros'yants. 11 pp. RUSSIAN, per, Atomnaya Energiya, Vol 21, No 6, Dec 1966, pp 492-496. Dept of Navy tr 5387 ONI tr 2392

Scientific  
Nuclear Science & Technology (Contd.)

Nuclear Transformations in Nature, by N. A. Vlasov, RUSSIAN, per, Atomnaya Energiya, Vol XXII, No 5, 1967, pp 339-342. Sci Tech Info Facility ST-NP-CG-10630

Bionics and Reliability, by I. B. Gutchin and A. S. Kuzichev, 297 pp. RUSSIAN, bk, Bionika i Nadezhnost': Elementy Teorii Formal'nykh Neyronov, 1967, pp. 1-283. JPRS 41097

Crystal Structures of Some Compounds of Rare-Earth Metals with Cadmium, by Yu. B. Kuz'ma, N. S. Ugrin RUSSIAN, per, Dopovidi Akad. Nauk UkrRSR, 1966, No 8, pp 1025-27. HB No 7194

Utilization of  $D(d,n)He^3$  and  $T(d,n)He^4$  Reactions for Calibrating Fast-Neutron Radiation Meters, by R. D. Vasil'yev, G. A. Dorofeyev, V. I. Petrov, M. I. Pimenov, V. F. Shevchenko, 7 pp. RUSSIAN, per, Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoy Energii SSSR, No 3, Moscow 1966, pp 22-25. F911221767 AEC UCRL Tr-10093

Shell Corrections for the Classical Nuclear Energy Model, by V. M. Strutinskiy, 37 pp. RUSSIAN, per, Institut Atomnoi Energii Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi Energii SSSR, Moscow, rpt IAE-1108. AEC ANL Tr-353

Dynamics of Non-Cylindrical Z-Pinch Plasma Sheath at a Stage Prior to Cumulation, by Yu. A. Kolesnikov, N. V. Filippov, T. I. Filippova, 18 pp. RUSSIAN, per, Institut Atomnoi Energii Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi Energii SSSR, Moscow. AEC IA Tr-66-58

Thermal Insulation of Plasma in Tokamak, by L. A. Arsenovich, G. A. Bobrovskiy, G. B. Mirnov, K. A. Razumova, B. C. Strelkov, 22 pp. RUSSIAN, per, Institut Atomnoi Energii Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi Energii SSSR, Moscow, 1966. AF MATT Tr-35

Scientific  
Nuclear Science & Technology (Contd)

Optical Interferometry of Plasma, by  
G. G. Dolgov-Savel'yev, E. P. Kruglyakov,  
RUSSIAN, rpt, Institut Yadernoy Fiziki  
Sibirskogo Otdeleniya AN SSSR, Novosibirsk,  
1966, 13pp.

\*FTD MT 24-83-67

Trapped Particle Instability in a Toroidal  
Geometry, by B. B. Kadomtsev, O. P. Pogutse,  
29 pp.

RUSSIAN, per, Institut Atomnoi Energii  
Gosudarstvennyi Komitet po Ispol'zovaniyu  
Atomnoi Energii SSSR, rpt IAE-1149.

AEC MATT Tr-33

Magnetohydrodynamic Flux for High Magnetic  
Reynolds Numbers, by E. P. Velikhov, 7 pp.  
RUSSIAN, per, Institut Atomnoi Energii  
Gosudarstvennyi Komitet po Ispol'zovaniyu  
Atomnoi Energii SSSR, Moscow, 1966.

AEC ANL Tr-380

Investigation of ( $e^+e^-$ ) Pair Production by  
Electrons With  $E = 2.4$  GEV, by J. Bohm, V. G.  
Grishin, M. M. Muminov, V. D. Ryabtsov, 25 pp.  
RUSSIAN, rpt, Issledovanie Obozovaniya  
( $e^+e^-$ )-par Elektronami s Energiiei  $E = 2.4$  GEV.  
Preprint JINR-P1-3143, Joint Institute for  
Nuclear Research, Dubna, 1967. F911220467

AEC SIAC Tr-64

Radiation Transfer in Spectral Lines,  
by L. M. Biberman, 17 pp.  
RUSSIAN, rpt, Mezhdunarodnyy Simpozium  
Po Svoystvam i Primeneniyu Nizkoterperaturnoy  
Plazmy Pri XX Mezhdunarodnom Kongresse po  
Teoreticheskoy i Prikladnoy Khimii, 1965,  
pp 1-16. P100176667

FTD MT 65-531

Electron Scattering by Polarized Hadron Targets,  
by V. M. Dubovik, A. A. Cheskov, 18 pp.  
RUSSIAN, rpt, Rasseyaniye Elektronov na  
Polivarirovannykh Adronnykh Miasenyakh. Preprint  
JINR-P2-2991, Joint Institute for Nuclear  
Research, Dubna, 1966. F911220367

AEC SIAC Tr-65

Scientific  
Nuclear Science & Technology (Contd)

The Influence of Ultraviolet Radiation on the  
Nucleic Acid Content in *Paramecium Caudatum*,  
Part I, by K. A. Sazonilova, L. P. Ovchinnikova,  
17 pp.

RUSSIAN, per, Sbornik Rabot Tsitol Ak Nauk SSSR,  
No 3, 1963, pp 145-153.

AEC ORNL Tr-1289

Phase Diagram of the Mg-Mn System, by D. A.  
Petrov, M. S. Mirgalovskaya, I. A. Strel'nikova,  
E. M. Komova, 4 pp.

RUSSIAN, per, Trudy Inst. Met. in. A. A.  
Baikova, Akad. Nauk, SSSR, No 1, 1957, pp 142-  
143. F911223267

AEC UCRL Tr-10088

Intensity of Radiation from Aureole Under  
Standard Conditions, by G. L. Shubova,  
RUSSIAN, per, Trudy Leningr Glavnaya Geofiz  
Observatoriya, No 170, 1965, pp 188-191.

P100183267

AFCRL T-R-610

Calculation of the Neutron Characteristics of  
Rocks, by D. A. Kozhevnikov, 39 pp.

RUSSIAN, per, Trudy Moskov, Inst. Neft. i  
Gazovoi Prom, Vol 41, 1963, pp 54-75.

F911220867

AEC UCRL Tr-10087

Method for the Construction of a Dynamic  
Correlation Between Stresses and Deformations  
by the Distribution of Residual Deformations,  
by V. S. Ienskiy.

RUSSIAN, per, Vestnik Moskovskogo Universiteta,  
Vol 6, No 5, 1951, pp 13-20.

AEC ANL Tr-487

Solution of the Problem of the Analytical  
Construction of an Optimum Control for a  
Nuclear Power Plant, by N. M. Sokolova, 9 pp.  
RUSSIAN, per, Vestni Akademii Nauk Belaruskoi  
SSR, Phys. Techn, No 3, 1965, pp 21-28.

F911224567

AEC ANL Tr-470

On the Theory of the Helium Method of Prospecting  
for Deposits of Radioactive Elements, by A. G.  
Grammakov, V. S. Glebovskaya, I. M. Khaykovich.  
RUSSIAN, per, Voprosy Rudnoy Geofiziki, No 5,  
1965, pp 3-19.

\*ABC

Scientific  
Nuclear Science & Technology (Contd)

**Estimation of the Effect of Emission From Radioactive Ores on the Results of Gamma-Assaying of Ore Bodies in Place**, by A. N. Bolotnikov.

RUSSIAN, per, Voprosy Rudnoy Geofiziki, No 5, 1965, pp 52-62.

\*AEC

**Use of the Similarity Theory in the Gamma Method of Determining Density**, by V. A. Artaybashev.

RUSSIAN, per, Voprosy Rudnoy Geofiziki, No 5, 1965, pp 88-95.

\*AEC

**Attempt to Use the Gamma-Ray Reflection Method for Quantitative Determination of Iron in Underground Boreholes in the Ordzhonikidze Mine in the Krivoy Rog Basin**, by A. P. Ochkur.

RUSSIAN, per, Voprosy Rudnoy Geofiziki, No 5, 1965, pp 109-112.

\*AEC

**Nomograms for the Calculation of the Concentration of Radioactive Elements in Rocks**, by A. V. Matveyev.

RUSSIAN, per, Voprosy Rudnoy Geofiziki, No 5, 1965, pp 131-133.

\*AEC

**High Frequency Properties of Plasma**, by K. D. Sinel'nikov,

RUSSIAN, bk, Vysokochastotnyye Svoystva Plazmy, 1965.

NASA TT F-449

**Use of Nuclear Magnetic Resonance for Differential Measurements in the Magnetic Field of the Earth** by A. V. Mel'nikov.

RUSSIAN, per, Yadernyy Magnitnyy Rezonans, Leningrad Universitet, No 1, 1965, pp 49-63.

\*PTD MT 24-100-67

**Plasma Confinement in Toroidal Traps With Destructed Magnetic Surfaces**, by B. B. Kadomtsev.

RUSSIAN, per, Zhurnal Eksperimentalnoi i Teoreticheskoy Fiziki, Vol 52, No 4, 1967, pp 1039-1048.

\*AEC MATT Tr-40

Scientific  
Nuclear Science & Technology (Contd)

**Accident Report on Rupture of Process Pipe in the Chinese Academy of Science, "Heavy Water Research"** CHINESE, per, Atomic Energy  
\*Dept of Navy ONI

**The Manufacture of Radioisotopes, Sources and Labelled Compounds in Czechoslovakia**, by K. Chorvat, 6 pp.

CZECH, per, Jaderna Energie, Vol 12, No 6, 1966, pp 225-227. P911224467

AEC AERE Tr-1068

**Distribution of the Radiation Field Penetrating the Shielding Zone of the 10 GeV Synchrophasotron**, by V. N. Lebedev, L. S. Zolin, M. I. Salatskaya, 10 pp.

FRENCH, rpt, No P-2177, 1965, Joint Institute for Nuclear Research. P911225167

AEC ORNL Tr-1536

**Horizontal Cryostat for Targets of Polarized Protons**, by P. Roubeau, 95 pp.

FRENCH, per, Centre d'Etudes Nucleaires, rpt, SPERN-65/30.

AEC ANL Tr-356

**Effect of Impurities on the Recovery Stages of Electrical Resistivity in Nickel Bombarded by Electrons at Low Temperatures**, by J. L. Oddou, C. Minier-Cassayre, P. Moser, 6 pp.

FRENCH, per, Centre d'Etudes Nucleaires, rpt BP-269.

AEC AI Tr-220

**Fabry-Perot Focussing Interferometer for the Measurement at Millimeter Wavelengths of Plasmas of Small Diameter Over Wide Range of Density Values**, by D. Bise, M. Cadart, T. Consoli, 14 pp.

FRENCH, per, Centre d'Etudes Nucleaires, 1966.

AEC MATT Tr-27

**History of the French Nuclear Effort Through 1965**, 202 pp.

FRENCH, per, Energie Nucleaire, Vol 8, No 8, 1965. P911250667-V

AEC Tr-6853

Scientific  
Nuclear Science & Technology (Contd)

Recent Advances in the Peaceful Use of Nuclear Energy in Communist China, by Li Yang, 5 pp.  
FRENCH, per, Energie Nucléaire, Vol 9, No 1, Jan-Feb 1967, pp. 28-30.  
JPRS 40689

The Reactor Containment Shell of the Nuclear Center, Bugey 1, by M. E. Robert.  
FRENCH, per, Extrait du Bulletin d'Information A.T.E.N., No 61, pp 1-3. (No date given)  
\*AEC ORNL Tr-1705

A Study on the Kinetics of Polynuclears Labelled in Vitro With Radioactive Chromium, by C. Dresch, et al.  
FRENCH, per, Nouv Rev Franc Hemat, Vol 7, No 1, 1967, pp 49-78.  
HEW NIH 6-21-67

Fusion of Uranium Dioxide by Direct High Frequency Induction, by B. Gayet, J. Holder, G. Kurka, 10 pp.  
FRENCH, per, Rev. Hautes Temp. Refractaires, Vol 1, No 2, 1964, pp 153-157. P911220257  
AEC NIM-140

Separation of Fast Neutrons at Extra Effect in Water Radiolysis, by T. Bebesel, I. Purica, FRENCH, per, Revue de Physique, Vol VI, 1961, pp 273-278.  
\*NASA TT F-11,183

Tables of Shielding Constants for the Components of Typical Shielding Materials, by S. Sasse, 61 pp.  
GERMAN, rpt, ABB-THE 1027. P911221667-V  
AEC ORNL Tr-1529

Electromagnetic Isotope Separator in the Cyclotron Laboratory of the Karlsruhe Research Center, by E. Fabricius, K. Freitag, S. Goering, A. Hanser, E. J. Langmann.  
GERMAN, rpt, KFK-511, Dec 1966.  
\*AEC ORNL Tr-1738

Analytical Estimates for an Optimum Choice and Configuration of Materials in Reactor Shields, by E. Schultz, S. Sasse, 58 pp.  
GERMAN, rpt, ABB-THE 1024. P911223067-V  
AEC ORNL Tr-1526

Scientific  
Nuclear Science & Technology (Contd)

Possibilities of Application of Ion Accelerators in Shielding Experiments, by H. Schultz, 32 pp.  
GERMAN, rpt, ABB-THE 1031. P911222267  
AEC ORNL Tr-1528

Luminescence of Tri- and Bivalent Ions of the Rare Earths in Crystals of Fluorite Type, by P. P. Feofilov,  
GERMAN, per, Acta Physica Polonica, Vol XXVI, 1964, pp 331-343.  
NLL RTS 3833  
ON LOAN ONLY

Capsules for the Irradiation of Organic Liquids at High Temperatures in a Nuclear Reactor, by E. Proksch, H. Bildstein, 6 pp.  
GERMAN, per, Atompraxis, Vol 10, 1964, pp 171-173.  
AEC AI Tr-222

Lucens Experimental Nuclear Power Plant, by P. Krafft. 47 pp.  
GERMAN, per, Bulletin des Schweizerischen Elektrotechnischen Vereins, 1962, Vol 53, No 13.  
Dept of Navy tr 5398 ONI 2403

The Behavior of Fast Zero-Power Reactors in the Event of Reactivity Perturbations, by P. Engelmann, K. Keller, 64 pp.  
GERMAN, per, Gesellschaft fuer Kernforschung, Karlsruhe, rpt KFK-332.  
AEC EURFAR-73F

Experimental Local Heat Transfer and Average Friction Coefficients for Subsonic Turbulent Flow of Air in an Annulus at High Temperature, by M. Dalle Donne, E. Meerwald, 38 pp.  
GERMAN, rpt, Gesellschaft fuer Kernforschung, Karlsruhe, rpt KFK-171/65.  
AEC EUR FNR-116F

Shock Front Conditions in Two-Phase Flow including the Case of Desuper-Heats, by M. Fischer, W. Haefels, 36 pp.  
GERMAN, rpt, Gesellschaft fuer Kernforschung, Karlsruhe, Oct 1965. (PAB-154/659)  
AEC EURFAR-139P

Scientific  
Nuclear Science & Technology (Contd)

Supplement to Report on "Nuclear Fuel Needs and Costs of Various Reactor Types in Germany, by E. Grumm, G. Gupta, W. Haefele, P. Jansen, M. Recker, W. Schmidt, J. Seetzen, 245 pp. GERMAN, rpt, Institut für Angewandte Reaktorphysik, rpt KFK 466, Sep 1966. F911250767-V AEC Tr-6859

Separation of the Stable Isotopes of Rare Earths, by E. Formann, G. Lugmair, F. Ruedenauer, H. Wotke, F. P. Viehboeck, 18 pp. GERMAN, rpt, Die Separation Von Stabilen Isotopen der Seltenen Erden, SGAE-PH-32/1965. AEC ORNL Tr-1341

Decorporation of Radionuclides (Studies on Radiocesium), by V. Nigrovic, F. Bohne, K. Madhus, 9 pp. GERMAN, per, Strahlentherapie, Vol 130, No 3, 1966, pp 413-419. F911224367 AEC IA Tr-67-29

The Atomizing of Melts, by R. Schellenberg. GERMAN, per, Ver. Deut. Ing. Berichte, No 99, 1966, pp 160-164. \*AEC ORNL Tr-1723

Industrial Moisture Measurement With Neutrons, by A. Trost. GERMAN, per, Zeitschrift für Instrumentenkunde, Vol 73, No 12, 1965, pp 328-336. HB No 7180

Theory of the Reflection of Positive Ions on Metallic Surfaces, by Oldwig V. Roos, 26 pp. GERMAN, per, Zeitschrift für Physik, Vol 147, 1957, pp 184-209. F911223967 AEC NP Tr-1538

Stress in the Oxide Films of Zirconium and Zircaloy-2 During Anodic Oxidation, by Sueso NOMURA, Cho AKUTSU, Ichiro SARUYAMA. JAPANESE, per, Danki Kagaku, Vol 33, No 10, 1965, pp 723-727. \*AEC NSJ Tr 94

Scattering of Alpha Particles by Medium-Weight Nuclei, by Isao KIMAE, Hiroshi OGATA, Shigeharu TOMITA, Makoto INOUE, Yasuhiko OKIMA, Masaru MATSUDA, Tamotsu NOMAGUCHI, 11 pp. JAPANESE, per, Genshiryoku Kenkyu, Vol 9, No 6, 1965, pp 785-802. AEC NSJ Tr-64

Scientific  
Nuclear Science & Technology (Contd)

Study on Slight Leakage From a Reactor Containment Vessel - Report of the Sub-Committee on Slight Leakage. JAPANESE, per, J. Japan Soc. Mech Engrs., Vol 68, No 560, 1965, pp 1321-1332. AEC NSJ Tr 87

Some Aspects of Fixation of Uranium From Natural Waters, by Tadashi MUTO, Shuichiro HIRONO, Hideo KURATA. JAPANESE, per, Kazan Chishitsu, Vol 15, No 74, 1965, pp 287-298. \*AEC NSJ Tr-91

Pressure Waves Produced by the Large Nuclear Explosions in 1961-1962, by Nobuhiko MURAYAMA, 26 pp. JAPANESE, per, Kenkyu Jiho, Vol 15, No 3, 1963, pp 1-14. AEC NSJ Tr-31

Prospecting and Development of Uranium Deposits of the Ningyo-toge Uranium Field in Japan, 22 pp. JAPANESE, per, Mining Geology, Vol 14, No 63, 1963, pp 1-10. AEC NSJ Tr-20

Studies on Al-U Alloys, by Noritsugu MITAMURA, Kasuo MARUYA, Jotaro KIMURA, 22 pp. JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 5, No 6, 1963, pp 407-475. AEC NSJ Tr-6

Activated Sintering of Uranium Dioxide Fuel. (III), by Munio SUZUKI, Kasuo MARUYA, Tadashi KIBOTA, 12 pp. JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 5, No 7, 1963, pp 587-592. AEC NSJ Tr-5

Recent Progress of Radiation Chemistry on Polymers in Japan, by Koichiro HAYASHI, 17 pp. JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 5, No 11, 1963, pp 938-943. AEC NSJ Tr-56

Eigenvalue Problem in the Neutron Thermalization, by Hiroshi TAKAHASHI, 28 pp. JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 5 No 11, 1963, pp 944-952. AEC NSJ Tr-17

Scientific  
Nuclear Science & Technology (Contd)

Corrosion Studies on Reactor Materials by High-Temperature and High-Pressure Water Loop (II). Chemical Investigation of the Water in High-Temperature and High-Pressure Water Loop, by Hiroharu ITAMI, Suso NOMURA, Cho AKUTSU, Noboru ITO, 17 pp.  
JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 7, No 1, 1965, pp 15-24.  
AEC NSJ Tr-61

Studies on the Treatment of Radioactive Liquid Wastes by Flotation Method, (I), by Yoshio KOYANAKA, 15 pp.  
JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 7, No 11, 1965, pp 621-626. F911222367  
AEC NSJ Tr-81

Analysis of Photoneutron Flux Distribution in Water-Shielded Reactors, by Takashi TAGAMI, Mitsuyuki KITAZUME.  
JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 8, No 1, 1966, pp 12-15.  
\*AEC NSJ Tr-93

Some Applications of Radioisotope in the Field of Civil Engineering, by Akira ARIZUMI, 15 pp.  
JAPANESE, per, Oyo Buturi, Vol 32, No 6, 1963, pp 411-420.  
AEC NSJ Tr-42

Absolute Measurement of Disintegration Rate of Radioisotope Sources by X-Gamma Ray Coincidence Counting Method, by Tadaki WATANABE, Norio TAKEUCHI, 9 pp.  
JAPANESE, per, Oyo Buturi, Vol 33, No 5, 1964, pp 322-327.  
AEC NSJ Tr-43

Thermal Neutron Radiography by the Use of Small Nuclear Reactor, by Kasuyuki OGANA, Nobuyoshi WAKABAYASHI, 16 pp.  
JAPANESE, per, Oyo Buturi, Vol 33, No 5, 1964, pp 334-341.  
AEC NSJ Tr-38

Multi-Anode 2 Gas Flow Counter for Large Area Sources, by Akira SHIMOUCHI, Kinuo SAKAGAMI, Yasushi KANADA, 15 pp.  
JAPANESE, per, Oyo Buturi, Vol 33, No 5, 1964, pp 348-354.  
AEC NSJ Tr-35

Scientific  
Nuclear Science & Technology (Contd)

Use of Krypton-85 Radiation Source for Chemical Reaction in Liquid Phase, by Tomomichi KASAMATSU, Norikatsu OHSUKA.  
JAPANESE, per, Oyo Buturi, Vol 35, No 6, 1966, pp 423-429.  
\*AEC NSJ Tr-92

Removal of  $^{137}\text{Cs}$  on a Niigata Montmorillonite Clay by Column Technique, by Masao TAKIZAWA, Kugao KODA, Shigetane UEHARA, Akio HIROKAWA, 11 pp.  
JAPANESE, per, Radioisotopes, Vol 31, No 6, 1964, pp 445-461.  
AEC NSJ Tr-58

Studies on Separation of Fission Product by Flotation Method. -- Separation of  $^{137}\text{Cs}$ , by Yoshio KOYANAKA.  
JAPANESE, per, Radioisotopes, Vol 15, No 2, 1966, pp 77-82.  
\*AEC NSJ Tr-90

Effects of Gamma-Irradiation on Tulip II. Effects on Various Stages of the Development, by Gisuke MESHIYUKA, Mitsuru OKA, Hisao Matsubara, Shozo IBA, 10 pp.  
JAPANESE, per, Tokyo Metropolitan Isotope Centre, Ann. Rept., Vol 2, 1963, pp 157-162.  
AEC NSJ Tr-53

A Method for the Measurement of Diffusion in Gels by Means of Radioactive Isotopes, by F. Kelemen, et al.  
RUMANIAN, per, Acad. Rep. Populare Romine, Studii Cercetari Fiz., Vol XIV, No 5, 1963, pp 583-588.  
ATS RU-4708

Physics

Molecular Physics of Boundary Friction, by A. S. Akhmatov,  
RUSSIAN, bk, 1966, 480 pp.  
MLL 4583.9

Elastic Scattering of Polarised 4 Mev Neutrons by Medium and Heavy Nuclei, by G. V. Gorlov, N. S. Lebedeva, V. M. Morozov, 5 pp.  
RUSSIAN, rpt, IAE-1251, I. V. Kurchatov Atomic Energy Institute of the Lenin Order, Moscow, 1966. F911220767  
AEC ANL Tr-462



Scientific  
Physics (Contd)

On the Theory of Coulomb Interaction, by  
I. I. Tugov,  
RUSSIAN, rpt, JINR-2638, 1966, 21 pp.  
NASA TT F-474

The Mobility and Effectiveness Mass of Current  
Carriers in Vitreous  $Tl_2SeAs_2Te_3$ , by  
A. M. Andriesh and B. T. Kolimiets, et al  
RUSSIAN, per, Ak Nauk Moldavsk SSR, Inst Fiz  
i Mat, 1964, pp 57-63.  
ATS RJ-4728

Concentration of Electrons and Number of  
Collisions of Electrons With Molecules of Air  
After a Shock Wave, by T. V. Bazhenova,  
Yu. S. Lobastov. 27 pp.  
RUSSIAN, per, AN SSSR, Energeticheskiy Institut.  
Fizicheskaya Gazodynamika, Teploobmen i Termodi-  
namika Gazov Vysokikh Temperatur, 1964,  
pp 29-33, P100190467  
FTD-MT-65-552

Methods of Measurement of Field of Density of Gas  
Flows in a Shock Tube With Help of an Interfero-  
meter, by S. G. Zaytsev, A. P. Shatilov, et al  
27 pp.  
RUSSIAN, per, AN SSSR, Energeticheskiy Institut.  
Fizicheskaya Gazodynamika, Teploobmen i Termodi-  
namika Gazov Vysokikh Temperatur, 1964,  
pp 104-114, P100190467  
FTD-MT-65-552

On the Regions of Impossibility of Motions in  
the Problem of TKree Bodies, by V. G. Golubeyev,  
RUSSIAN, per, Doklady Ak Nauk SSSR, Vol CLXXIV,  
No 4, 1967, pp 767-770.  
Sci Tech Info Facility  
ST-CM-10632

The Effect of Bismuth Impurity on the Self-  
Diffusion of Selenium, by B. D. Aliyev,  
G. B. Abdullayev,  
RUSSIAN, per, Dok Ak Nauk Azerb SSR, Vol XV,  
No 10, 1959, pp 897-899.  
ATS RJ-4714

Paramagnetic Resonance in Selenium, by  
G. B. Abdullayev, et al,  
RUSSIAN, per, Dok Ak Nauk Azerb SSR, Vol XX,  
No 10, 1964, pp 13-16.  
ATS RJ-4713

Scientific  
Physics (Contd)

Computing Spectral Width of Emission of Solid  
State Lasers Operating Under Nonstationary Con-  
ditions, by S. M. Samson.  
RUSSIAN, per, Doklady AN BSSR, Vol 10, No 8, 1966  
pp 553-557.  
\*FTD-HT-23-1074-67

Electrical Conductivity and Thermal Electro-  
motive Force of Manganese Selenide,  
RUSSIAN, per, Dok Ak Nauk Belorussk SSR, Vol  
IX, No 1, 1965, pp 15-17.  
ATS RJ-4705

Emission Bandwidth of Ruby Lasers, by  
A. M. Sarzhevskiy, et al.  
RUSSIAN, per, Doklady AN BSSR, Vol 11, No 2,  
1967, pp 112-114.  
\*FTD-HT-23-1056-67

Theory of Surface Ionization on Glowing Metals,  
by A. I. Ansel'm,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol III, 1934,  
pp 329-334.  
NASA TT F-478

Dependents of the Physical Properties of  
Aromatic Polyanids on Their Structure, by  
A. P. Rudakov,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLXXII,  
No 4, 1967, pp 899-902.  
\*NASA TT F-11,158

On Elliptic Equations in Unbounded Regions,  
by M. I. Freidlin.  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLXXII,  
No 6, 1967, pp 1286-1289.  
\*Dept of Navy/APL/JHU J-1002

Determining the Geometric Parameters of  
Centrifugal Pump Stages Peceded by Screw  
Impellers for Given Values of Cavitation  
Margin, by V. I. Dumov,  
RUSSIAN, per, Energomashinostroyeniye, No 2,  
1966, pp 6-10.  
\*FTD-HT-23-976-67

Initiation of Detonations in Condensed  
Explosives with a Laser, by A. A. Brish, et al.  
RUSSIAN, per, Fizika Goreniya i Vstryva,  
No 3, 1966, pp 132-133.  
\*FTD HT 23-980-67

Scientific  
Physics (Contd)

Stereometrograph, by N. A. Tumar,  
T. P. Budylova, 17 pp.  
RUSSIAN, per, Geodeziya i Kartografiya,  
No 10, 1965, pp 51-59. P100171867  
FTD HT 66-390

Scattering of Light in a Turbid Medium, by  
K. S. Shifrin,  
RUSSIAN, bk, Gosudarstvennoye Izdatelstvo  
Tekhniko-Teoreticheskoy Literatury, 1951, 288 pp.  
\*NASA TT F-477

System for Super-speed Recording of Contours  
of Spectral Lines, by E. P. Kruglyakov,  
Yu. Ye. Nesterikhin.  
RUSSIAN, rpt, Institut Yadernoy Fiziki  
Sibirskogo Otdeleniya AN SSSR,  
Novosibirsk, 1966, 12 pp.  
\*FTD MT 24-84-67

An Experimental Determination of the Enthalpy  
of Corundum ( $Al_2O_3$ ) from 500 to 2000°C, by  
V. A. Kirillin, A. E. Sheindlin, V. Ya.  
Chakhovskoy, 17 pp.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,  
Vol 4, No 2, 1961, pp 3-17. P911221367  
AEC ANL Tr-450

The Fick Equation of Diffusion, by I. R. Krich-  
evskiy, et al,  
RUSSIAN, per, Inzh. Fiz. Zh., Vol V, No 2, 1962,  
pp 101-103.  
NASA TT F-10,917

Calculation of Condensation Shocks in a  
Relatively Low Pressure Range, by  
V. F. Stepanchuk, G. A. Saltanov.  
RUSSIAN, per, Inzhenerno-Fiz Zhur, Vol IX,  
No 4, 1965, pp 438-443.  
Dept of Navy 5437/APL/JHU T-2013

Stationary Heat Transfer Through a Wall  
With Longitudinal Rectangular Fins and a Variable  
Heat-Conduction Coefficient, by G. A. Kosarev.  
RUSSIAN, per, Inzhenerno-Fiz Zhur, Vol IX,  
No 6, 1965, pp 788-792.  
Dept of Navy 5439/APL/JHU T-2015

Contribution to the Calculation of the Temp-  
erature Distribution on a Porous Plate, by  
S. A. Druzhinin, A. I. Leont'yev,  
RUSSIAN, per, Inzh. Fiz. Zhurnal, Vol X, No 4,  
1966, pp 479-481.  
NASA TT F-10,959

Scientific  
Physics (Contd)

Flame Configuration in Concurrent Flows, by  
V. A. Dvoynishnikov, et al.  
RUSSIAN, per, Inzhenerno-fizicheskiy Zhurnal,  
Vol 11, No 2, 1966, pp 250-257.  
\*FTD-HT-23-1080-67

The Effect of Initial Stream Turbulence on  
the Characteristics of an Axisymmetric  
Submerged Jet, by A. S. Ginevskiy,  
K. A. Pochkina,  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal,  
Vol XII, No 1, 1967, pp 15-18.  
\*Dept of Navy/ APL/JHU J-1009

Viscous Hypersonic Flow Past a Slender Cone,  
by V. S. Nikolayev,  
RUSSIAN, per, Inzh. Zh., Vol II, No 3, 1962,  
pp 9-13.  
NASA TT F-485

On a Problem of Shock-Wave Diffraction,  
by E. F. Afans'yev.  
RUSSIAN, per, Inzhener Zhur, Vol V, No 4,  
1965, pp 612-622.  
Dept of Navy 5418/APL/JHU T-2011

Experimental Determination of the Law of Heat  
Exchange for the Turbulent Boundary Layer in a  
Supersonic Flow, by L. V. Kozlov. 15 pp.  
RUSSIAN, per, Issledovaniye Teploobmena v Poto-  
kakh Zhidkosti i Gaza, 1965, pp 91-102.  
P100201367  
FTD-HT-66-379

Electron Diffraction Study of Phase Formation  
in the System Cu-Se, by G. A. Efendiyev,  
M. M. Kazinets,  
RUSSIAN, per, Izv. Ak. Nauk Azerb. SSR, Ser.  
Fiz. Mat. i Tekhn. Nauk, No 5, 1960, pp 91-98.  
ATS RJ-4701

A Study of the Diffusion of Some Elements in  
Selenium, by Z. A. Aliyarova, and  
G. B. Abdullayev,  
RUSSIAN, per, Izv. Ak. Nauk Azerb. SSR, Fiz.  
Tekhn. i Khim. Nauk, No 5, 1958, pp 7-13.  
ATS RJ-4715

Electrical Properties of Selenium Single Crystals,  
by N. Z. Dzhallilov, and G. M. Alyev,  
RUSSIAN, per, Izv. Ak. Nauk Azerb. SSR, Ser. Fiz.  
Tekhn. i Mat. Nauk, No 3, 1955, pp 90-95.  
ATS RJ-4718

Scientific  
Physics (Contd)

Instrument for Contactless Determination of the Life of Current Carriers in Semiconductors, by M. I. Iglitsyn, et al, RUSSIAN, per, Izv Ak Nauk Azerb SSR, Ser Fiz Tekhn i Mat Nauk, No 2, 1964, pp 81-84.  
ATS RJ-4716

The Hydrodynamic Resistance of a Disk, by V. M. Kapinos, RUSSIAN, per, Izv Ak Nauk SSSR, Energ i Transport, No 5, 1965, pp 155-158.  
NASA TT F-10,930

Modern Status and Prospective Technical Application of the Superconductivity Phenomenon, by V. V. Sychev. RUSSIAN, per, Izvestiya AN SSSR, Energetika i Transport, No 4, 1966, pp 26-32.  
\*FTD-MT-67-20

On the Critical Richardson Number, by A. K. Kazanskiy. RUSSIAN, per, Izvestiya, Akademiya Nauk SSSR, Fizika Atmosfery i Okeana, Vol 1, No 8, 1965, pp 876-879.  
\*FTD-Mt-23-1053-67

Viscous Hypersonic Flow After a Parabolic Axially Symmetric Shock, by V. S. Nikolayev. 8 pp. RUSSIAN, per, Iz AN SSSR Mekhanika i Mashinostroyeniye, No 6, 1964, pp 48-52. P100171667  
FTD NT 65-325

Separation of Three-Dimensional Boundary Layer, by V. S. Avduyevskiy, et al. RUSSIAN, per, Izvestiya AN SSSR, Mekhanika Zhidkosti i Gaza, No 2, 1966, pp 19-26.  
\*FTD-MT-67-36

Flow of a Viscous Fluid Between Fixed and Blown Rotating Disks, by L. A. Dorfman, RUSSIAN, per, Izv Ak Nauk SSSR, Mekh Zhid i Gaza, No 2, 1966, pp 86-91.  
NASA TT F-10,931

Heat Transfer and Equilibrium Temperature of a Sphere in a Supersonic Flow of Rarefied Gas, by Yu. A. Koshmarov. RUSSIAN, per, Iz Ak Nauk SSSR, Mekh Zhid i Gaza, No 4, 1966, pp 176-177.  
\*Dept of Navy 5412/APL/JHU YG230-T522

Scientific  
Physics (Contd)

Supersonic Flow of a Combustible Gas Mixture over a Sphere, by S. M. Gilinskiy, et al. RUSSIAN, per, Izvestiya AN SSSR Mekhanika Zhidkosti i Gaza, No 5, 1966, pp 9-13.  
\*FTD-MT-23-1068-67

Laminar Boundary Layer on Blunt-bodies Taking Into Account Vorticity of the External Flow, by I. N. Murzinov, RUSSIAN, per, Izv Ak Nauk SSSR, Mekh. Zhid. i Gaza, No 6, 1966, pp 124-129.  
\*NASA TT F-11,007

Investigation of Base Pressure Fluctuations Behind a Cone in a Supersonic Flow, by Yu. A. Panov. RUSSIAN, per, Iz Ak nauk SSSR, Mekh i Zhid i Gaza, No 6, 1966, pp 129-134.  
\*Dept of Navy/APL/JHU J-992

Physical Characteristics of Flow in the Separation Region in the Case of the Three-Dimensional Interaction Between the Boundary Layer and the Shock Wave, by V. S. Avduyevskiy, K. I. Medvedev, RUSSIAN, per, Izv Ak Nauk SSSR, Mekhan Zhid i Gaza, No 1, 1967, pp 25-33.  
\*Dept of Navy/ APL/JHU J-1011

Experimental Determination of the Drag Factor of a Sphere in a Supersonic Rarefied-Gas Flow, by V. A. Sukhnev. RUSSIAN, per, Iz Ak Nauk SSSR, Mekh, No 3, 1965, pp 172-175.  
DEpt of Navy 5438/APL/JHU T-2015

Approximate Method of Determining the Concentration Field in a Turbulent Gas Jet, by K. A. Malinovskiy, RUSSIAN, per, Izv Ak Nauk SSSR, Mekhan Zhid i Gaza, No 1, 1967, pp 110-112.  
\*Dept of Navy/ APL/JHU -1010

Investigation of Short Supersonic Nozzles, by L. V. Golsh. RUSSIAN, per, Izvestiya AN SSSR Mekhanika Zhidkosti i Gaza, Issledovaniye Korotkikh Sverkhzvukovikh Sope, No 2, 1966, pp 175-179  
\*FTD-MT-23-1079-67

Inelastic Phenomena in Amorphous Selenium, by I. A. Domoryad, et al, RUSSIAN, per, Izv Ak Nauk SSR UK, Ser Fiz Mat Nauk, No 3, 1964, pp 61-66.  
ATS RJ-4710

Scientific  
Physics (Contd)

Effect of Addition of Cadmium on the Electrical Properties of Selenium, by S. I. Mekhteyev, G. M. Alyev,  
RUSSIAN, per, Izv Ak Nayk Azerb SSR, Ser Fiz Tekhn i Mat Nauk, No 2, 1965, pp 83-86.  
ATS RJ-4719

Attenuation of the Surface Waves of Solutions of Surface-Active Substances, by A. Sheludko, R. Chernov, 17 pp.  
RUSSIAN, per, Izv. Inst. Fizikol'min Bulgarska Akad Nauk, Vol 4, 1964, pp 147-154.  
AEO JB TX-43

Mixing Processes in a System of Two Parallel Jets by F. Frishman.  
RUSSIAN, per, Iz Seriya Fiziko-Matematicheskikh i Tekhnicheskikh Nauk No 2, 1966, pp 207-210.  
\*FTD HT 23-989-67

Calculation of a Gun for Shaping a Helical Electron Beam of Hytransverse Electron Energy, by S. V. Luchinin, I. N. Nazarov.  
RUSSIAN, per, Iz Sibirskoye Otdeleniye Akademii Nauk SSSR Seriya Tekhnicheskikh Nauk No 2, 1966, pp 17-24.  
\*NASA TT F-11,145

The Temperature Field in an Infinite Plate Heated Simultaneously by Radiation and Convection, by Yu. V. Vidin, V. V. Ivanov,  
RUSSIAN, per, Izv VUZ Aviats. Tekh, No 4, 1965, pp 3-6.  
NASA TT F-10,960

An Investigation of the Electrical Conductivity of Organic Semiconductors During Melting, by P. K. Mitskevich,  
RUSSIAN, per, Izv. Vysshikh Uchebn Zavedeniy Fiz, No 4, 1965, pp 151-155.  
ATS RJ-4735

Generalisation of the Theory of a Regular Heat Regime with Variable Thermal Capacity and Thermal Conductivity Coefficients, by L. I. Kudyashev, L. N. Zhemkov,  
RUSSIAN, per, Izv VUZ priborostroyeniya, No 6, 1958, pp 100-108.  
NLL 5809.51 (TIL/T5683)

Scientific  
Physics (Contd)

Investigation of the Kinetics of Crystallization of Glassy  $As_2Se_3$ , by E. V. Shkol'nikov,  
RUSSIAN, per, Khim Tvers Tela, 1965, pp 187-198.  
ATS RJ-4723

Control of the Dynamics of a Two-Phase Liquid Gas Weightless Medium With the Aid of Surface Effects, by V. N. Serebryakov,  
RUSSIAN, per, Kosmicheskoye Issledovaniya, Vol IV, No 5, 1966, pp 713-721. P910183567  
NASA TT F-469

Asymptotics of the Wake of a Body Moving in Rarefied Plasma, by Yu. M. Panchenko.  
RUSSIAN, rpt Komissiya po Issledovaniyu i Ispol'zovaniyu Kosmicheskogo Prostranstva "Issledovaniya Kosmicheskogo Prostranstva", 1965, pp 254-264.  
\*FTD MT 67-44

Oscillations of a Conducting Droplet in a Magnetic Field, by A. Gailitis,  
RUSSIAN, per, Magnitn Gidrodinam, No 2, 1966, pp 79-90.  
NASA TT F-10,918

Small Oscillations of a Viscous Liquid-Metal Droplet in the Presence of a Magnetic Field, by A. P. Zambran,  
RUSSIAN, per, Magnitn. Gidrodinam., No 2, 1966, pp 91-95.  
NASA TT F-10,919

Effect of Nickel on the Mechanical Properties and Cold Brittleness Threshold of Low-Carbon Steel, by A. P. Gulyayev, A. M. Fatkina,  
RUSSIAN, per, Metallov i Term Obrab Met, Vol X, 1966, pp 34-39.  
NLL 9022.4 (66/382)

Application of Spectroscopic Methods for Diagnostics of Low Temperature Plasma, by M. A. Yel'yashevich, L. I. Grechikhin, et al. 9 pp.  
RUSSIAN, bk, Mezhdunarodnyy Simpozium Po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse Po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-8.  
P100195467  
FTD-MT-65-539

Scientific  
Physics (Contd)

Certain Characteristics of a High-Frequency Induction Gas Discharge and Peculiarities of its Application for Synthesis of Refractory Dielectric Crystals, by K. K. Voronin, Z. M. Gol'dfarb, et al. 13 pp.

RUSSIAN, bk, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-12. P100189867  
FTD-MT-65-530

Experimental Determination of Coefficient of Thermal Conductivity of a Cesium Plasma, by L. P. Zarkova, B. I. Stefanov. 15 pp.  
RUSSIAN, rpt, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-16. P100195867  
FTD-MT-65-529

Ionic-Molecular Reactions of Hydrogen With Noble Gases, by M. V. Tikhomirov, G. Ye. Spezhakova, et al. 11 pp.

RUSSIAN, bk, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-11. P100189467  
FTD-MT-65-547

Introduction of Plasma Technology in the Chemical and Metallurgical Industry, by V. Bzhovskiy, Ya. Reda, et al. 19 pp.

RUSSIAN, bk, Mezhdunarodnyy Simpozium Po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse Po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-27. P100195367  
FTD-MT-65-527

On Cylindrical Electric Arc Theory Taking Into Account Energy Transfer by Radiation, by V.N. Vetlutskiy, A. T. Onufriyev, et al. 21 pp.  
RUSSIAN, bk, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-28. P100188867  
FTD-MT-65-544

Plasma Processes in Metallurgy and Processing of Materials, by N.N. Rykalin, I. D. Kulagin. 13 pp.  
RUSSIAN, bk, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-12. P100188767  
FTD-MT-65-543

Scientific  
Physics (Contd)

Synthesis of Acetylene in a Plasma Jet, by S. Mints, A. Shiman'ski, et al. 9 pp.  
RUSSIAN, bk, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-8. P100195667  
FTD-MT-65-540

Thermodynamic and Gas-Dynamic Parameters of Low-Temperature Plasma, by T.V. Bazhenova, S.G. Zaytsev. 13 pp.

RUSSIAN, bk, Mezhdunarodnyy Simpozium po Svoystvam i Primeneniyu Nizkoterperaturnoy Plazmy Pri XX. Mezhdunarodnom Kongresse Po Teoreticheskoy i Prikladnoy Khimii, 1965, pp 1-12. P100195267  
FTD-MT-65-526

Non-Stationary Heat and Mass Transfer, by I. G. Gurevich, et al.  
RUSSIAN, per, Nauka i Tekhnika, 1965.  
NASA TT F-432

Supersonic Gas Flow Around Blunt Bodies, by O. M. Belotserkovskiy,  
RUSSIAN, bk, Obtekanie Zatuplennykh Tel Sverkhzvukovym Potokom Gaza, Teoreticheskoye i Eksperimental'noye Issledovaniya, 1966. P910242367-V  
NASA TT F-453

Supersaturation and Condensation of Potassium Vapor Flow, by G. L. Podvidz,  
RUSSIAN, per, Plofizika Vysokokh Temperatur, Vol V, Jan-Feb 1967, pp 121-129.  
\*NASA TT F-11,182

Hall Pickups Based on thin Layers of Indium Antimonide by K. V. Shalimova, A. M. Gulyayev,  
RUSSIAN, per, Poluprovodnikovyye Pribory i Ikh Primeneniye, Sbornik Statey, No 13, 1965, pp 306-311.  
\*FTD HT 23-996-67

PI-Regulator with Nonlinear Integrating Action, by Yu. O. Abugov, M. D. Gafanovich,  
RUSSIAN, per, Priborostroyeniye, No 12, 1966, pp 12-14.  
\*Dept of Navy/ APL/JHU J-1017

Transverse Elastic Impact of a Sphere Against an Anisotropic Plate, by N. A. Kil'chevskiy, A. Kh. Konstantinov,  
RUSSIAN, per, Prikl. Mekh. Otd. Matem. Mekh. i Kibernet. AN SSSR, Vol II, No 11, 1966, pp 1-4.  
NASA TT F-10,971

Scientific  
Physics (Contd)

Theory of Shells and Plates, by S. M. Dugar'yan,  
RUSSIAN, rpt, Proceedings of the 4th All-  
Union Conference on Shells and Plates Held at  
Yerevan, 24-31 Oct 1962, 1964.  
NASA TT F-341

Stability of Materials Subjected to High Tem-  
peratures, by G. S. Pisarenko,  
RUSSIAN, bk, Prochnost Materialov pri Vysokikh  
Temperaturakh, 1966, 795 pp.  
\*CFSTI NASA TT F-508

Scattering, Reaction and Decay in Nonrelativistic  
Quantum Mechanics, by A. I. Baz',  
Ya. B. Zel'dovich, et al,  
RUSSIAN, bk, Rasseyaniye, Reaktsiy i Raspady  
v Nerelativistskoy Kvantovoy Mekhanike, 1966,  
339 pp.  
\*CFSTI NASA TT F-510

Glassy Liquid Crystal Films, by I. G. Chistyakov,  
E. A. Kosterin,  
RUSSIAN, per, Rost. Kristallov, Akad Nauk SSR,  
Inst. Kristallogr., Vol IV, 1964, pp 68-73.  
ATS RJ-4706

Growth of Single-Crystal Neumatic Films, by  
I. G. Chistyakov,  
RUSSIAN, per, Rost. Kristallov, Akad Nauk SSR,  
Inst. Kristallogr., Vol IV, 1964, pp 74-80.  
ATS RJ-4707

Investigation by the Method of Ultraviolet  
Cytophotometry of the Influence of Starvation  
on the Quantity of RNA and DNA in *Paramecium*  
*Caudatum*, by L. P. Ovchinnikova, G. V.  
Selivanova, E. M. Kheisin, 21 pp.  
RUSSIAN, per, St. Rabot. Inst. Tsitol., Akad.  
Nauk SSSR, No 3, 1963, pp 44-53  
AEC ORNL Tr-1290

Highly Unsaturated Polymers Communication 17,  
by I. L. Kotlyarevskiy, M. I. Bardamova, et al,  
RUSSIAN, per, Seriya Khimicheskaya, No 5,  
1966, pp 909-914.  
\*ACSI J-2867  
ID 2204029167

Natural Vibration of Shells in a Fluid  
Medium, by V. S. Gontkevich.  
RUSSIAN, rpt, Sobstvennyye Kolebaniye Obolochek  
v Zhiokosti, 1964.  
\*FTD HT 23-1003-67

Scientific  
Physics (Contd)

Rational Structure of Formulas for Calculating  
the Statistical Characteristics of Wave Loads,  
by V. V. Kozlyakov,  
RUSSIAN, per, Sudostroyeniye, No 8, 1966,  
pp 10-16.  
Dept of Navy Tr 5410/Navships Tr No 1042

Theory, Experiment of Practice, by  
P. L. Kapitsa, 51 pp.  
RUSSIAN, bk, Teoriya, Eksperiment,  
Praktika, 1966, pp 1-48.  
\*FTD MT 67-17

Heat Transfer Between Bodies of Different  
Shapes with a Turbulent, by V. K. Shchitnikov.  
RUSSIAN, per, Teplo-i Massoobmen tel a  
Okruzhayushchey Gazovoy Sredy, Institut  
Teplo-i Massoobmena AN SSSR,  
1965, pp 86-111.  
\*FTD MT 67-74

Selected Articles from "Transactions of the  
Academy of Sciences of the USSR Physics  
Institute.  
RUSSIAN, per, Trudy Fizicheskoy Institut AN  
SSSR, No 31, 1965, pp 74-95-; 96-112; 139-177.  
\*FTD MT 67-31

Basic Criteria Defining the Intensity of  
Turbulence in a Mountain Region, by  
D. L. Laykhtman, E. K. Bytner.  
RUSSIAN, per, Trudy Glavnaya Geofizicheskaya  
Observatoriya Leningrad, No 171, 1965,  
pp 32-37.  
\*FTD HT 23-1017-67

Relaxation of a Localized Perturbation in  
a Quantum Vibrational System, by A. P. Purga.  
RUSSIAN, per, Trudy Institut Fiziki i  
Astronomii AN ESTSSR, No 27, 1964, pp 57-68.  
\*FTD MT 24-92-67

Concerning the Problem of the Flow of  
a Hypersonic Stream of Gas Around a Thin  
Body, by N. M. Monakhov, 7 pp.  
RUSSIAN, per, Trudy Kazan Aviatstionnyy Institut  
No 71, 1962, pp 50-55. P100184767  
FTD HT 66-411

Temperature Errors in Measuring the  
Diameter of a Rotor Wheel of a Compressor  
and a Gas Turbine Engine, by I. Ye. Velikovskiy.  
RUSSIAN, per, Trudy Kazan Aviatstionnyy Institut,  
No 84, 1964, pp 15-22.  
\*FTD HT 23-992-67

Scientific  
Physics (Contd)

Use of an EI-12 to Solve Problems of Unsteady State Heat Conduction in Metals with Varying Thermophysical Properties, in the Presence of Convective and Radiative Heat Transfer, by L. I. Kudryashev, V. P. Veselov, et al. RUSSIAN, per, Trudy Kuybyshev Aviatsonnyy Institut, No 15, 1963, pp 295-298.  
\*FTD MT 66-173

Characteristics of the Distribution of Zones of High Turbulence Aloft in the Arctic, by A. M. Kavrova. RUSSIAN, per, Trudy Leningrad Arkticheskiy i Antarkticheskiy Nauchno-Issledovatel'skiy Institut, No 226, 1964, pp 132-142.  
\*FTD MT 66-172

Equipment on Semiconductors and Method of Radio Wave Mapping, by A. D. Frolov, 25 pp. RUSSIAN, per, Trudy Mezvuzovskoy Konferentsii Po Induktivnym Metodam Rudnoy Geofiziki 1961, 1964, pp 190-202.  
PI00176967  
FTD MT 65-369

Calculation of Plane and Axially-Symmetrical Supersonic Flows in the Presence of Irreversible Processes by O. N. Katskova, A. N. Krayko. RUSSIAN, per, Trudy Vychislitel'nogo Tsentra Raschet Ploskikh i Osesimmetrichnykh Sverkhzvukovykh Recheniy Pri Nalichii Neobratimyykh Protseessov, 1964, pp 1-44.  
\*FTD MT 67-70

Some Properties of Thin Films in the Cu-Se and Cu-Te Systems, by G. P. Sorokin. RUSSIAN, per, Uch. Zap. Kishinevsk. Gos. Univ., Vol XLIX, 1961, pp 123-128.  
ATS RJ-4700

The Frequency Method of Measurement in Logging Magnetic Susceptibility, by Yu. I. Kirdiyavtsev, 15 pp. RUSSIAN, per, Uch Zap Leningr. Gos. Univ., Ser Fiz Geol Nauk, No 12, 1960, pp 87-98.  
AEC Tr-6832

Investigation of Gamma-Transitions in the  $Co^{59}$  ( $\beta, n$ )  $Ni^{59}$ , by A. K. Valtov, I. I. Zalyubovsky, V. A. Klyucharev, V. A. Iustik. RUSSIAN, per, Ukrainian Fiz. Zhurnal, Vol 6, No 3, 1961, pp 318-332.  
\*AEC ORNL Tr-1739

Scientific  
Physics (Contd)

Expansion in Eigenfunctions of Self-Conjugate Operators Corresponding to General Elliptical Problems With Eigenvalues Under Boundary Conditions, by V. V. Barkovskiy. RUSSIAN, per, Ukrainskiy Matemat Zhur., Vol XIX, No 1, 1967, pp 9-24.  
\*Dept of Navy/APL/JHU J-990

Study of the Effect of Various Etchants and Surface Alloying on the Photoconductivity of Cadmium Sulfide Single Crystals, by V. N. Bondarenko, et al. RUSSIAN, per, Ukr. Fiz. Zh., No 4, 1966, pp 453-455.  
NASA TT F-10,921

Fifth Scientific Conference on the Problems of Evaporation, Combustion, and Gas Dynamics of Dispersed Systems, by D. I. Polishchuk. RUSSIAN, per, Ukrayins'kyi Fizychnyy Zhurnal, Vol 11, No 5, 1966, pp 575-578.  
\*FTD-HT-23-1078-67

Self-focusing of Light in NaCl Crystals, by M. S. Brodin, et al. RUSSIAN, per, Ukrayins'kyi Fizychnyy Zhurnal, Vol 11, No 10, 1966, pp 1151-1153.  
\*FTD-HT-6700403

Effect of the Addition of Inert Gases on the Structure of Simple Liquids, by I. V. Matyash. UKRAINIAN, per, Ukrainskiy Fiz Zhur, Vol XII, No 1, 1967, pp 56-60.  
\*Dept of Navy/APL/JHU J-997

The Effect of Radiation on the Physical Properties and Structure of Solid Bodies, by A. I. Zakharov. RUSSIAN, per, Uspekhi Fizicheskikh Nauk, Vol LVII, No 4, pp 525-531, 535-536, 540-541, 546, 552-553, 573-576, Dec 1955.  
\*AEC

Electronic Properties and Structure of Polymeric Organic Semiconductors, by A. A. Dulov. RUSSIAN, per, Usp Khim, Vol XXXV, No 10, 1966, pp 1853-1882.  
ATS RJ-4736

An Investigation of the Luminescence of 4-Styrtlstilbene by Means of a Diffraction Spectrophotometer, by I. P. Zhad'ko, et al. RUSSIAN, per, Vesn. Kiyv's'k. Univ, No 5, Ser. Fiz. ta Khim., No 2, 1962, pp 25-32.  
ATS RJ-4696

Scientific  
Physics (Contd)

Synthesis and Electrical Conductivity of Glassy  $\text{AsSe}_{1.5}\text{Si}_x$  Alloys, by E. V. Shkol'nikov, RUSSIAN, per, Vestn. Leningr. Univ., Vol XX, No 4, Ser. Fiz. i Khim. No 1, 1965, pp 115-119. ATS RJ-4702

The Electrical Conductance and Microhardness of Glassy and Glass-Crystalline  $\text{AsSe}_{1.5}\text{Pb}_x$ , by E. V. Shkol'nikov, Z. U. Borisova, RUSSIAN, per, Vestn. Leningr. Univ., Vol XX, No 4, Ser. Fiz. i Khim. No 1, 1965, pp 120-127. ATS RJ-4703

Stability of Wedge-Shaped Plate in a Supersonic Flow, by A. A. Izmailov. RUSSIAN, per, Vest Mosk Univ, Mat i Mekh, No 1, 1967, pp 103-110. \*Dept of Navy/APL/JHU J-1001

The Diffusion of Some Metals in Polycrystalline Selenium, by G. B. Abdullayev, et al, RUSSIAN, per, Vopr Met i Fiz Poluprov Akad Nauk SSSR, 1958, pp 89-93. ATS RJ-4711

Supersonic Flow Over Bodies of Rotation Having Annular Grooves, by M. G. Morozov. RUSSIAN, per, Vest Mosk Univ, Ser Mat i Mekh, No 6, 1966, pp 108-113. \*Dept of Navy/APL/JHU J-999

Problems in Reactor Shielding Physics, by D. L. Broder, et al, RUSSIAN, bk, Voprosy Fiziki Zashchity Reaktorov, Sbornik Statey, 1963. NASA TT F-411

Supersonic Flow Over Blunt Bodies of Revolution With a Discontinuous Contour, by O. M. Belotserkovskiy. RUSSIAN, per, Vychis Matemat i Matemat Fiz, Vol VI, No 5, 1966, pp 930-934. Dept of Navy 5413/APL/JHU T-2006

Synthesis of Polymers Containing Ferrocene-nitrogen With a System of Conjugated Bonds, by T. R. Vishnyakova, I. A. Golubeva, et al. 8 pp. RUSSIAN, per, Vysokomolekulyarnyye Soyedinyeniya, Vol 8, No 1, 1966, pp 181-185. P100200867 FTD-117-66-416

Scientific  
Physics (Contd)

Measurement of the Coefficients of Thermal Expansion of  $\text{ZrC}$ ,  $\text{HfC}$ ,  $\text{NbC}$ , and  $\text{TaC}$  at High Temperatures, by Yu. B. Paderno, E. M. Dudnik, T. V. Andreyevna, I. G. Barantseva, V. L. Yupko, 5 pp. RUSSIAN, per, Vysokotemperaturnyye Neorganicheskoye Soyedineniya, Akad Nauk USSR. Institut Problem Materialovedeniya, 1965, pp 293-296. F911222167 AEC Tr-6867

Solid Phase Formation upon a Spherical Surface, by S. A. Klevtzur, T. Kh. Sedel'nikov, N. S. Gorbunov, N. N. Repnikov, P. G. Tsyba, M. M. Belousov and V. N. Mitskevich, 7 pp. RUSSIAN, per, Vysokotemperaturnyye Pokrytiya, 1967, pp. 44-48. JPRS 41067

Transverse Motion of Plasma in a Magnetic Field, by L. I. Yelizarov, et al. RUSSIAN, per, Yadernyy Sintez (Supplement), Pt 2, 1962, pp 699-704. \*FTD-MT-67-77

Instability of a Discharge with a Glowing Cathode in a Magnetic Field at Low Pressures, by M. A. Vlasov, Ye. I. Dobrokhotoy. RUSSIAN, per, Yadernyy Sintez, No 6, 1966, pp 24-34. \*FTD MT 67-75

Electrochemical Investigation of the Pitting Corrosion of 18/10/Ti Steel Under Heat-Transfer Conditions, by I. V. Riskin, RUSSIAN, per, Zashchita Metallov, Vol II, No 6, 1966, pp 657-663. NLL 9022.4 (66/397)

Comparison of Low Cycle Fatigue Curves Obtained During Tests With Soft and Hard Loading, by A. P. Gusenkov. 7 pp. RUSSIAN, per, Zavodskaya Laboratoriya, Vol 31, No 12, pp 1494-1497. ACSI J-1767 ID 2204006967

On the Theory of Surface Ionization on Red-Hot Metals, by A. I. Ansel'm, RUSSIAN, per, Zh. Eksperiment. i Teor. Fiz., Vol IV, No 7, 1934, pp 678-683. \*NASA TT F-10,978



Scientific  
Physics (Contd)

Optical Sensitization of the Photoeffect of Zinc Oxide and the Adsorption Isotherms of Dyes, by N. N. Markevich, E. K. Putsieko, RUSSIAN, per, Zh. Fiz. Khim., Vol XXXVI, No 11, 1962, pp 2393-2399.  
ATS RJ-4693

Temperature Studies of the Electrical Conductivity and Photoconductivity of Monohalo-substituted Benzene, by R. G. Romanets, RUSSIAN, per, Zhurnal Fizicheskoy Khimii, Vol XL, No 5, 1966, pp 1102-1105.  
\*ACSI J-2868  
ID 2204029267

Effect of Water Vapor on the Electrical Conductivity, Photoconductivity, and Photo EMF of Poly Phenylacetylenide of Copper, by V. S. Myl'nikov, RUSSIAN, per, Zhurnal Fizicheskoy Khimii, Vol XL, No 5, 1966, pp 979-984.  
\*ACSI J-2869

Reaction of Oxygen With Alkali Earth Metal Oxides. I. Equilibrium in BAO-O2 System Pressure Close to Atmospheric, by O. V. Kedrovskiy, RUSSIAN, per, Zhurnal Fizicheskoy Khimii, Vol XLI, No 2, 1967, pp 414-420.  
\*NASA TT F-11,120

Method for the Exclusion of Warming Up to an Absorbent by Infrared Radiation During Spectral Investigation Of Absorbed Molecules, by G. A. Galken, et al, RUSSIAN, per, Zh. Fiz. Khim., Vol XLI, No 3, 1967, pp 740-742.  
\*NASA TT F-11,006

Calculation of Turbulent Heat Transfer on a Semi-Permeable Surface in the Case of Injection of a Foreign Gas, by S. S. Kutateladze, RUSSIAN, per, Zhur Prikl Mekh i Tekh Fiz, No 5, 1966, pp 132-135.  
\*Dept of Navy/APL/JHU J-989

Dependence of Laser Single-pulse Characteristics on the Active Rod Length, by A. M. Samson, RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 5, No 6, 1966, pp 718-723.  
\*FTD-HT-23-769-67

Scientific  
Physics (Contd)

Propagation of Oscillations in a Two-Part System of a Liquid and Its Vapor, Part I, by A. Viglin, RUSSIAN, per, Zh. Tekh. Fiz., Vol VIII, No 3, 1938, pp 275-285.  
NASA TT F-10,943

General Theory of Asymmetric Waves in a Circular Waveguide with an Open End, by L. A. Vayshteyn, RUSSIAN, per, Zh. Tekh. Fiz., Vol XXI, No 3, 1951, pp 328-345.  
NASA TT F-473

Hypersonic Gas Flow Past Blunt Bodies with Radiation Taken Into Account by V. N. Fomin, RUSSIAN, per, Zhur Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol VI, No 4, 1966, pp 714-726.  
\*FTD HT 23-985-67

Manosecond Pulse Oscillator, by A. D. Sushkov, RUSSIAN, Patent No 168,756.  
\*FTD-HT-23-974-67

Preparation of Fluorinated P-alkyl Phosphazo Compounds, by V. V. Lysenko, et al. RUSSIAN, Patent 182,152, Class 12.  
\*FTD-HT-23-1060-67

The Use of Arsenazo-III as a Color Comparing Reagent for Scandium, by Kuo, Chih-Ying, CHINESE, per, Hua Hseu Tung Pao, No 7, 1966, pp 52-55.  
NASA TT F-10,849

Users of Laser, by Hsiang, Ch'Un, CHINESE, per, K'O Hsueh Hua Pao, Vol 1, 1963.  
\*FTD-HT-23-1024-67

The Third USSR Symposium on Crystal Growth by Chang, Shou-ch'ing, CHINESE, per, Kuai Suan Yen Hsueh Pao, Vol III, No 1, 1964, pp 61-62.  
\*FTD HT 23-1007-67

Development of Semiconductor Devices, by Hsi-teh Hsieh, 10 pp. CHINESE, per, Tien Tzu Chi Shu, No 4, 1964, pp 1-3. P100138967  
FTD-TT-65-1066

Scientific  
Physics (Contd)

Interaction Between Free Electrons and Intensive Light Beam - Multiphoton Processes of the Carriers in Semiconductors, by Ho Yu-ping. 25 pp.  
CHINESE, per, Wu Li Hsueh Pao (Acta Physica Sinica), Vol 21, No 1, 1965, pp 37-50.  
PID0190567  
FTD-TT-65-1053

The Transverse Magnetoresistance of n-Type Germanium in a Strong Magnetic Field, by Lan Sin-fu, 36 pp.  
CHINESE, per, Wu Li Hsueh Pao, Vol XXI, No 5, 1965, pp 1015-1037.  
FTD HT 66-531

Ultrasonic Absorption in Aqueous Suspension, by Wei Yung-chio, Chang Sue-I. 25 pp.  
CHINESE, per, Wu Li Hsueh Pao, Vol XXI, No 5, 1965, pp 1061-1074.  
FTD HT 66-531

A Statistical Theory of Brittle Fracture, by H. S. Hsiv.  
CHINESE, per, Wu Li Hsueh Pao (Acta Physica Sinica), Vol 22, 1966, pp 487-497.  
\*FTD-HT-23-1050-67

Organic Macromolecular Substances with Semiconductor Properties, by Z. Vymazal, J. Stepek, et al.  
CZECH, per, Chem Listy, Vol LIX, No 7, 1965, pp 800-820.  
ATS CJ-4734

Acids for the Measurement of the Scattering of Light, by M. Boublik,  
CZECH, per, Chemische Listy, Vol IV, No 61, 1965, pp 521-535.  
\*ACSI J-2838  
ID 2204028067

This Film in Optics, Z. D. Knittl.  
CZECH, per, Jahna Mechanika A Optika, Vol 11, 1966, pp 218-220.  
\*FTD-HT-23-1032

Possibility of Improving the Characteristics of a Dynamic Vibration Absorber in the Case of Centrifugal Force. by S. Ziemba, B. Radziszewski.  
CZECH, per, Spornik Praga Konferencie Galospatna Konferencie o Problemach Dynamiky Strojov. 24 Spolenice, 1961, 1963, pp 151-161.  
\*FTD HT 23-1019-67

Scientific  
Physics (Contd)

Experimental Methods in the Study of Heat Transfer at High Temperatures, by R. Dvorak, L. Krejci.  
CZECH, per, Strojnický Casopis, No 2, 1965, pp 198-205.  
\*FTD HT 23-988-67

New Trend in the Research of Dynamics and Thermomechanics of Gases, by J. Mastovsky.  
CZECH, per, Vestník Československá Akademie Ved, Vol 1, 1965, pp 66-68.  
\*FTD-HT- 23-1025-67

Electron Microscope Study of Irradiated Beryllium Oxide, by Auguste Andre Bisson, 56 pp.  
FRENCH, rpt, CEA-R 2963, Presented to the Faculty of Sciences of the University of Paris for Title of Doctor, 1966. P911223167-V  
AEC WAPD Tr-56

Interferometric Holography in Diffuse Light, by S. Lowenthal, Y. Belvaux,  
FRENCH, per, Comptes Rendus, Vol CCLXIII, 1966, pp 904-907.  
\*Dept of Navy/APL/JHU J-100g

Mobility of Carriers and Resistivity of Thin Polycrystalline Films of Germanium Evaporated in Vacuo, by P. Chantraine, B. Dreyfus-Alain.  
FRENCH, per, Journal of Physics and Chemistry of Solids, No 27, 1966, pp 239-246.  
Dept of Navy tr 5434 NRL tr 1102

Experimental Study of Excited Levels of  $^{132}\text{Xe}$ , by R. Benek, L. Stab, P. Siffert, A. Coche, 12 pp.  
FRENCH, per, Nuclear Physics, Vol 93A, 1967, pp 597-608. P911224867  
AEC ORNL Tr-1683

Direct Interaction Protons Emitted From Ag and Au Targets Bombarded by 156 MeV and 91 MeV Protons, by C. Brun, E. Dubost, B. Gatty, M. Lefort, X. Tarrago, 21 pp.  
FRENCH, per, Nuclear Physics A95, 1967, pp 337-356. P911223667  
AEC ORNL Tr-1685

Solving with and Analog Computer the Simplified Equations of a Turbulent Viscous Boundary Layer, by Jean Delery,  
FRENCH, per, Office National D'Etudes et de Recherche Aerospatiale, No 110, Jan-Feb 1966, pp 15-18.  
\*AEC

Scientific  
Physics (Contd)

Zeus 2 Program: One-Velocity Three-Dimensional Monte Carlo, by G. Devillers, P. Lafore, J. C. Nimal, 21 pp.  
FRENCH, rpt, Programme Zeus 2 - Monte Carlo-Monocinetique-Tridimensionnel. DEP-SEPP-488-66.  
\*AEC ORNL Tr-1371

Study of the Aeroelastic Instability of a Flat Rectangular Panel, by R. Dat, et al, FRENCH, per, Rech. Aerospat, No 112, 1966, pp 27-32.  
NASA TT F-10,645

Influence of Prestressing on the Strenght of One-Dimensional Laminates, by M. Hediard, FRENCH, per, Rech. Aerospat, No 113, 1966, pp 3-6.  
NASA TT F-10,909

Restatement of Physical Definition of Reynolds Number, by Du Parquet.  
FRENCH, per, Revue de Institut francis du Petrol Vol XX, July-Aug 65, pp 1117-1131.  
\*NASA TT F-11,130

Influence of the Nature and Energy of an Ion Pulse on the Gain of an Electron Multiplier Used in Mass Spectrometry, by F. Hoffert, J. Paulus, et al, FRENCH, per, Revue de Physique Applique, Vol I, 1966, pp 43-47.  
\*AEC ORNL-tr-1715

Absorption Fluorescence and Phosphorescence Spectra of Symmetrical Carbocyanines at 70 K, by U. Mazzucato, et al.  
ITALIAN, per, Ric Sci Rend 2 Vol IV, No 5, 1964, pp 501-508.  
ATS 1197-IJ

Light Scattering and Drift Instability in a Plasma, by Otto Theimer, 78 pp.  
GERMAN, rpt, Garching Report IPP 1/48, Jul 1966, pp 1-55. P911225267-V  
AEC NP-Tr-1539

Photoelectric Emission From a Metal to a Liquid Dielectric, by J. Terlecki, O. Gzowski.  
GERMAN, per, Acta Phys Austriaca, Vol XV, No 4, 1962, pp 337-343.  
ATS 1193 QJ

Scientific  
Physics (Contd)

The Theory of Tension States in Plastic and Sandy Media, by Alfred Haar, Theodor V. Karman, GERMAN, per, Akademie der Wissenschaften, Gottingen, Mathematisch-Physikalische Klasse, 1909, pp 204-218.  
\*AEC

The Cosine Law in the Kinetic Theory of Gases, by M. Knudsen, GERMAN, per, Ann. Phys, Vol XLVIII, 1915, pp 1113-1121.  
NASA TT F-486

Heat Transfer Studies Under the Euratom Program, by G. Grass.  
GERMAN, per, Atompraxis, Vol 12, No 4/5, 1966, pp 215-219.  
\*AEC ORNL Tr 1740

Gravitation and Terrestrial Magnetism, Part I, by T. Schlomka, GERMAN, per, Gerlands Beitr. Geophys, Vol V, 1938, pp 357-406.  
NASA TT F-10,889

A Flow Apparatus With Glass Electrodes (On the Acidity Constant of True Carbonic Acid and Its Rate of Dehydration), by Jerg Meier and G. Schwarzenbach, 15 pp.  
GERMAN, per, Helvetica Chimica Acta, Vol XI, Fasciculus IV, No 105, 1957, pp. 907-917.  
JPRS 41613

The "Sandwich Method" - A New Technique for the Preparation of Epitaxially Grown Semiconductor Layers, by E. Sirtl, GERMAN, per, J. Phys Chem Solids, Vol XXIV, 1963, pp 1285-1289.  
ATS 1191-GJ

Critical Opalescence of Solid Solutions, by A. Maenster, K. Sagel.  
GERMAN, per, Naturwissenschaften, Vol 44, No 20, 1957, pp 535-536.  
\*AEC ORNL Tr-1732

Analytical Study of Spin, by M. Scherer, M. O. Agassse, GERMAN, rpt, Paper Presented at the AGARD Meeting on Stability and Control, Cambridge, Great Britain, 20-23 Sept 1966 ONERA TP 388, 13 pp.  
NASA TT F-10,902

Scientific  
Physics (Contd)

Defect Structures at High Frenkel Defect  
Densities, by G. Lueck, R. Sismann, 15 pp.  
GERMAN, per, Physica Status Solidi, Vol 6,  
1964, pp 263-272. P911221467  
AEC ANL Tr-446

Conduction Electrons in Lanthanide  
Semiconductors, by S. Methfessel.  
GERMAN, per, Z. Angew Phys, Vol XVIII, No 5-6,  
pp 414-432.  
ATS 1190 QJ

Wavelength Stability of a Neon-Helium Laser, by  
E. Englehard, 16 pp.  
GERMAN, per, Zeit fur Angewandte Physik, Vol 20,  
No 5, 1966, pp 404-407.  
AEC SIAC Tr-48

Unsteady Flow Processes When Critical Heat  
Supply is Exceeded, by Bartlma.  
GERMAN, per, Zeit fur Flugwiss, Vol XI,  
No 4, 1963, pp 160-168.  
Dept of Navy 5414/APL/JHU T-2007

Electron Theory of Metals, Based on Fermi  
Statistics Part I: General Data Flow Pro-  
cesses, and Work Functions, by A. Sommerfeld,  
GERMAN, per, Z. Physik, Vol XLVII, 1928,  
pp 1-32.  
NASA TT F-10,871

Ionic Conductivity of Zone-Refined Alkali Halides,  
by Helmut Grundig. 25 pp.  
GERMAN, per, Zeitschrift fur Physik, No 158, 1960  
pp 577-594  
Dept of Navy tr 5397 ONI tr 2402

Second Colloquium on Thin Films. Budapest,  
27 June Through 2 July 1967. 10 pp.  
HUNGARIAN, per, Fizikochemika, Vol 6, No 5,  
May 1967, pp. 155-158.  
JPRS 41631

Solids Research, by Gyorgy Gergely, Lenard Pal,  
Gyorgy Paris and Gyorgy Saigeti, 6 pp.  
HUNGARIAN, per, Magyar Tudomány, No. 3, Mar  
1967, pp. 167-171.  
JPRS 41034

Fluorimeter of High Sensitivity,  
by L. Csanky.  
HUNGARIAN, per, Magas es Automatika, Vol XIII,  
No 8, 1965, pp 240-241.  
\*JPD NT 23-1022-67

Scientific  
Physics (Contd)

Critical Review of Experimental Heat Transfer  
Coefficients and Temperature Distributions in  
Turbulent Boundary Layers at Supersonic and  
Hypersonic Flow, by J. C. Rotta,  
ITALIAN, rpt, Paper Presented at the AGARD  
Meeting on "Recent Developments in Boundary  
Layer Research", 10-14 May 1965, pp 46 pp.  
NASA TT F-10,905

Effect of Oxygen on the Electrical Conductivity  
of Zinc Oxide Powder, by H. Watanabe, et al,  
JAPANESE, per, Denshi Shashin, Vol VII, No 1,  
1966, pp 2-9.  
ATS JJ-4686

Photosensitive ESR and Photoconduction of li-  
and Ag-Doped Zinc Oxide, by T. Kawaguchi,  
JAPANESE, per, Denshi Shashin, Vol VII, No 1,  
1966, pp 24-30.  
ATS JJ-4688

Change in Surface Properties as a Result of  
Crystal Transformation. Part 1. Crystal Trans-  
formation of Copper and Nickel Phthalocyanines  
by Treatment in Trichlorobenzene and Changes  
in Their Heats of Imersion on Crystal Trans-  
formation, by K. Meguro, et al,  
JAPANESE per, Kogyo Kagaku Zasshi, Vol LXIX,  
No 9, 1966, pp 1725-1727.  
ATS JJ-4694

Clinical Application of Fluorod Dosimetry, by  
Tatsuo ABAI, 50 pp.  
JAPANESE, per, Nippon Act Radiol, Vol 23, No 6,  
1963, pp 753-772.  
AEC MSJ Tr-25

On the  $\beta$ - to  $\alpha$  Transformation and Grain-  
Refinement of U and Its Dilute Alloys, by  
Ko BOENO, 16 pp.  
JAPANESE, per, Nippon Genshiryoku Gakkaishi,  
Vol 5, No 9, 1963, pp 754-759.  
AEC MSJ Tr-7

Isotope Separation by Con-current Gas Centri-  
fuge (1), by Akira KANAGAWA, Yoichi TAKASHIMA,  
24 pp.  
JAPANESE, per, Nippon Genshiryoku Gakkaishi,  
Vol 6, No 1, 1964, pp 20-23.  
AEC MSJ Tr-29

Scientific  
Physics (Contd)

Thickness Measurement of Thin Polymer Films Using a Semiconductor Alpha Detector, by Kazuo TERANISHI, 17 pp. JAPANESE, per, Nuclear Engineering, Vol 11, No 3, 1965, pp 49-56. AEC NEJ Tr 67

Radiant Intensity Determination of Pulsed Photon Beams by Pulse-Height Measurements, by Masakuni MARITA, Hiroaki TANIDA, Hisashi OKADA, Yasutomo OZAMA, 14 pp. JAPANESE, per, Oyo Buturi, Vol 32, No 6, 1963, pp 363-367. AEC NEJ Tr-4

Single Channel Pulse-Height Analyzer of High Stability, by Hajime IIZUKA, Ken-ichi HASEGAWA, 14 pp. JAPANESE, per, Oyo Buturi, Vol 33, No 5, 1964, pp 355-361. AEC NEJ Tr 36

Ultrasonic Methods of Testing Materials, by L. Filipczynski, et al, POLISH, bk, 1966, 280pp. Butterworths, London MIL

Nondispersive Analysis of X-Ray Fluorescence Excited by Radioisotope Sources and Its Applications, by B. Holynska, 37 pp. POLISH, per, Chemia Analityczna, Vol 11, 1966, pp 647-664. F911224667 AEC UCRL Tr-10102

Detection of Cracks in Ferromagnetic Bodies, POLISH, per, Mechanik, No 3, 1967, pp 140-141. \*ACSI J-2841 ID 2204028267

Experiments in the Production of Selenium-Cadmium Filters, by M. Sura, F. Ratajczyk, POLISH, per, Szkio i Ceram, Vol XIV, No 1, 1963, pp 1-4. ATS PJ-4720

The Propagation of Air Shock Waves in a Tube, by Gunn Granstrom, 107 pp. SWEDISH, rpt, No 103-0, Royal Fortification Administration Bureau of Fortifications Research and Experimental Section No 1216 B, 10 Oct 1950. F911223767-V AEC ORNL Tr-1998

Scientific  
Physics (Contd)

Some Electrical Properties of Semiconductors of the System HgTe-CdTe Heated in Mercury Vapors, by D. I. Tsyutsyura, A. D. Shneider, UKRAINIAN, per, Ukr Fiz Zh, Vol X, No 2, 1965, pp 228-229. ATS UJ-4730

An X-Ray Spectral Study of Selenium in Various Modifications, by S. M. Karal'nik, et al, UKRAINIAN, per, Ukr. Fiz Zh, Vol X, No 6, 1965, pp 668-671. ATS UJ-4712

Status and Problems of the Kinetic Theory of Liquids, by I. Z. Fisher. UKRAINIAN, per, Ukrainskiy Fiz Zhur, Vol XII, No 1, 1967, pp 3-9. \*Dept of Navy/APL/JHU J-993

Propulsion & Fuels

Boiling Characteristics of Aviation Fuels at Higher Pressures, by I. N. Dyatlov, RUSSIAN, per, Aviatsionnyye Dvigateli, 1963, pp 106-116. \*ACSI J-2805 ID 2204027367

New Design for a Precombustion Engine, by L. A. Gussak, RUSSIAN, per, Avtomobil'naya Promyshlennost, No 12, pp 3-5. \*ACSI J-2842 ID 2204028367

The 100,000-Kilowatt Gas Turbine Power Plant GT-100-750-2 Made by Leningrad Metal Works in the 22nd Party Congress, by A. P. Tat'yankin, 5 pp. RUSSIAN, per, Energomashinostroeniye, No. 4, Apr 1967, pp. 44-45. JPRS 41414

Analysis of Hypersonic Axisymmetric Jets, by V. N. Gusev, RUSSIAN, per, Izv Ak Nauk SSSR, Mekhan Zhid i Gaza, No 1, 1967, pp 107-109. \*Dept of Navy/APL/JHU J-1012

Scientific  
Propulsions & Fuels (Contd)

On the Interaction of a Rotating Circular Cascade of Profiles and Guide Blades Flowed Over by a Nonviscous Liquid, by Yu. T. Borshchevskiy.  
RUSSIAN, per, Izvestiya AN SSSR, Sibirskogo OTD, Seriya Tekhnicheskikh Nauk, Vol 6, No 2, 1963, pp 74-84.  
\*FTD-MT-67-46

Stability Criterion of an Arbitrary Deflagration Regime in the Combustion Chamber of a Rocket Motor With Successive Fuel Self Ignition, by S. K. Aslanov.  
RUSSIAN, per, Izv. VUZ Aviatsionnaya Tekhnika, No 3, 1966, pp 85-88.  
\*FTD-HT-23-1047-67

Flight Regimes of a Vehicle With a Ramjet Engine Which Provide for Constant Conditions of Flame Stabilization, by V. N. Gruzdev, A. V. Talantov, 13 pp.  
RUSSIAN, per, Iz VUZ Aviatsionnaya Tekhnika, No 4, 1966, pp 121-128. P100184667  
FTD HT 67-24

Methods of Calculating Transients in Gas-Turbine Power Plants, by V. V. Selin.  
RUSSIAN, per, Iz VUZ Energetika, No 12, 1963, pp 55-64.  
\*FTD HT 23-1018-67

Mechanics of Low-Thrust Spaceflight, by G. L. Grodzovskiy, Yu. N. Ivanov, et al.  
RUSSIAN, bk, Mekhanika Kosmicheskogo Poleta s Maloy Tyagoy, 1966, 795 pp.  
\*CRSTI NASA TT F-507

Production of Gas-Turbine Engines, by A. M. Abramov, et al.  
RUSSIAN, bk, Proizvodstvo Gazoturbinnnykh Dvigately (Spravochnoye Posobiye), 1966, pp 174-282.  
\*FTD-MT-67-18

Some Indices of the Operation of "Gotaverken" Engines, by G. F. Levshin.  
RUSSIAN, per, Rybnoe Khoz, No 3, 1967, pp 14-15.  
\*Dept of Interior  
Fish & Wildlife Service  
Bureau of Commercial Fisheries  
Bureau of Foreign Fisheries

Scientific  
Propulsions & Fuels (Contd)

Use of Integral Relationships for an Approximate Solution of Problems in Fluid Mechanics and Heat Exchange in the Case Where a Jet of Incompressible Fluids is Propagated Along a Flat Wall, by N. V. Kliyentov,  
RUSSIAN, rpt, Tepol- i Massopereenov pri Vzaimodeystviy Tel s Potokami Zhidkostey i Gazov, Vol II, 1965, pp 420-432.  
\*FTD-HT-23-970-67

Effect of System Volume on Pick-up of a Twin-shift Gas Turbine Engine, by Ye. T. Bertosh.  
RUSSIAN, per, Trudy Moskva. Vsesoyuznyy Nauchno-issled. Inst. Zheleznogorozhnogo Transporta, No 282, 1964, pp 76-83.  
\*FTD-HT-23-1030-67

Flameless Combustion, by M. B. Ravich,  
RUSSIAN, per, Vestnik Ak Nauk SSSR, Vol XX, Feb 1950, pp 35-47.  
NLL RTS 3868  
On Loan Only

Single-Shaft, Low-Power Gas-Turbine Engine, by Ch. I. Svetlakov, N. P. Klisaniek  
RUSSIAN, Patent 165039.  
\*FTD HT 23-1010-67

Gas Turbine, by N. M. Bykov, O. N. Yemin.  
RUSSIAN, Patent 169947.  
\*FTD HT 23-1009-67

Antisurge Device for the Axial Compressor of a Turbojet Engine, by G. V. Yevstaf'yev.  
RUSSIAN, Patent: 173376.  
\*FTD HT 23-1013-67

Simplified Method of Measurement of Temperature Fields Behind Combustion Chambers of Turbo-Jet Engines, by O. Schurek.  
CZECH, per, Zpravoda VZLU, No 3, 1966, pp 88-100.  
\*NASA TT F-11,111

Interaction of Carbon Products in the Course of Graphitization, by P. Cornuault, F. du Chaffaut, J. Engelen, M. Yvare, A. Fillatre, 30 pp.  
FRENCH, per, Carbon, Vol 4, 1966, pp 411-424.  
F911225467  
AEC IA Tr-67-27

Scientific  
Propulsions & Fuels (Contd)

French Frigate Suffren: Propulsion and Power Production, by Lt. Com. Bouvard, 18 pp.  
FRENCH, per, La Revue Maritime, No. 237, Nov 1966, pp. 1336-1352.  
JPRS 41013

Special Problems in Air Jet Pulverizing, by Hans Schlaug,  
GERMAN, per, Symp Zerkleinern Frankfurt am Main, Apr 10-13, 1962, pp 531-555.  
\*AEC LASL

Analysis of the Behavior of a Salt-Metal Extraction Column for U-Bi Fuel, by Terukatsu MIYACHI, Masaru TAKATA, 17 pp.  
JAPANESE, per, Kagaku Kagaku, Vol 26, 1962, pp 991-998. P911221867  
AEC ORNL Tr-1665

Supersonic Combustion and Its Application in Hypersonic Jet Engines, Part I, by P. Wolanski,  
POLISH, per, Technika Lotnicza i Astronautyczna, No 10/11, 1966, pp 18-24.  
\*Dept of Navy/ APL/JHU J-1013

Equipment Lubrication at High and Very High Temperatures, by C. Cretulescu.  
ROMANIAN, per, Constructia de Masini, No 3, 1965, pp 151-155.  
\*FTD-HT-23-1049-67

Space Technology

Possible Interpretation of the Results of Measurements on the Near-Lunar Satellite "AMS LUNA-10", by Sh. Sh. Dolginov, E. G. Yeroshenko, et al,  
RUSSIAN, rpt. May 1967. P910229467  
Sci Tech Info Facility  
ST-LPS-NLS-10618

Steps in the Universe (From the Logbook of the Voskhod-2), by A. Leonov,  
RUSSIAN, per, Aviats. i Kosmonavt., No 5, 1966, pp 27-31.  
NASA TT F-10,604

Scientific  
Space Technology (Contd)

Ray Penetrating into the Future Ultradistant Cosmic Communication Light Pulses of Satellites, by N. Aleksandrov. 9 pp.  
RUSSIAN, per, Nauchno-Tekhnicheskiye Obshchestva SSSR, No 8, 1964, pp 41-43. P100201067  
FTD-HT-66-439

Practical Application of Data Obtained From Meteorological Satellites, by K. Ya. Kondrat'yev, Ye. P. Borisenkov, et al,  
RUSSIAN, bk, Prakticheskoye Ispol'zovaniya Danykh Meteorologicheskikh Sputnikov, 1966, 448 pp.  
\*CFSTI NASA TT F-511

Space Psychology, by V. V. Parin, et al.  
RUSSIAN, per, Priroda, No 12, 1966, pp 3-12.  
\*FTD-HT-23-1067-67

Extraterrestrial Civilizations, by G. M. Tovmasyan, et al,  
RUSSIAN, rpt, Proceedings of the First All-Union Conference on Extraterrestrial Civilizations and Interstellar Communication, Byurakan, 20-23 May 1964, 1965.  
NASA TT F-438

Experimental Investigation of Heat Emission From Cylinders During Free Movement of Air in Rarefield Space, by A. K. Rebrov, 12 pp.  
RUSSIAN, per, Trudy Kazan Aviatcionnyy Institut, No 66, 1961, pp 73-82. P100172367  
FTD MT 65-469

X-Ray Investigation of Surface Layer of Certain Heat-Resisting Alloys After Heat Treatment in Various Gas Media by V. V. Zhukov, A. A. Nilov, 6 pp.  
RUSSIAN, per, Trudy Kazan Aviatcionnyy Institut, No 66, 1961, pp 111-116. P100172367  
FTD MT 65-469

Attention Weightlessness, by A. V. Yegorov, et al.  
RUSSIAN, bk, Vnimaniye - Nevesomost' 1965, 94 pp.  
\*FTD-MT-66-157

Steam Generators for the Ejector Stages of Rocket Altitude Simulating Test Stands of the DVL at Lampoldshausen, by J. Fabian, 14 pp.  
GERMAN, rpt, DVL Bericht No 598, Danderdruck aus Jahrbuch 1965 der WGLR, pp 516-520.  
DIA LN 197-67A

Hide and Seek in the Ether. 4 pp.  
GERMAN, per, Volksarmee, No 4, p 8.  
ACSI J-2808  
ID 2204027667

Scientific  
Miscellaneous

The Problem of Integrated Study of the Development of Science, by B. V. Biryukov, 11 pp.  
RUSSIAN, per, Filosofskiy Nauki, No. 1, 1967,  
pp. 173-178.  
JPRS 41036

Note From the Editor, 8 pp.  
RUSSIAN, bk, Kibernetika -- Na Sluzhbu Kommunizmu,  
Teoriya Informatsii, Vychislitel'naya Tekhnika,  
Semiotika, Vol 3, pp. 5-10.  
JPRS 41633

Russian Journalist Interviews Manfred Von Ardenne, Director of GDR Institute of Physics, on the Prospects of Science, 5 pp.  
RUSSIAN, per, Tekhnika Molodeshi, No 4, Apr 1967, pp. 22-23.  
JPRS 41697

How to Wake Gulliver, by Jurij Pronjakin, 14 pp.  
CZECH, per, Ceskoslovensky, Vol XXV, No 23, 1966, pp 4-8.  
DIA LN 121-67

Other Small Articles, by Volkswirt, H. J. Gaffron, GERMAN, per, Binnenschiffahrts-Nachrichten, Vol XXI, No 37, Edition A, Sept 1966, pp 665, 668-669, 670.  
DIA LN 598-66B



# INFORMATION RECEIVED DURING JULY

## ON COVER-TO-COVER TRANSLATIONS

Acta Medica Iugoslavica, Vol XX, No 2, 1966.  
CFSTI TT 66-59007/2

Akusticheskiy Zhurnal, Vol XII, No 4, Oct-Dec 1966,  
Am Inst Phys  
Vol XII, No 4, Apr-Jun 1967

Archivum Immunologiae et Therapiae Experimentalis, Vol XV, No 1, 1967.  
CFSTI TT 67-56007/1

Arhiv Bioloskih Nauka, Vol XVIII, No 1, 1966.  
CFSTI TT 66-59008/1

Astrofizika, Vol I, No 4, Oct-Dec 1965.  
Faraday Press

Aviatsiya i Kosmonavtika, No 3, 1967.  
\*FTD-BT-23-986-67.

Avtomatika i Telemekhanika, Vol XXVII, No 12, 1966.  
Instrument Society of America

Bulletin of the Faculty of Fisheries Nagasaki University, No 22, Mar 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Doklady Ak Nauk SSSR, Physics Section, Vol CLXXI, No 4-6, Dec 1966,  
Am Inst Phys  
Vol XI, No 12, June 1967

Doklady Akademii Nauk USSR Physics Section, Vol 172, No 1-3, Jan 1967.  
American Institute of Physics  
Vol 12, No 1, July 1967.

Elektrokhimiya, Vol II, No 9, Sept 1966.  
CB.

Elektrokhimiya, Vol II, No 10, 1966.  
CB

Elektrosvyaz, Vol XXI, No 1, 1967.  
IEEE

Fizika Tverdogo tela, Vol IX, No 1, 1967.  
Am Inst Phys  
Vol IX, No 1, July 1967

Fizika Tverdogo Tela, Vol IX, No 2, 1967.  
Am Inst Phys  
Vol IX, No 2, Aug 1967

Folia Morphologica, Vol XXV, No 4, 1966.  
CFSTI TT 66-57003/4

Geokhimiya, No 5, 1966.  
The Geochemical Society

Geologiya Nefti i Gaza, VI VI, No 12, 1962.  
Petroleum Geology

Gidrobiologicheskiy Zhurnal, Vol III, No 2, 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Gidrobiologicheskiy Zhurnal, Vol III, No 3, 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Glasnik Hemijskog Drustva - Beograd, Vol XXX, No 7-9, 1965.  
CFSTI TT 65-50400/7-9

Glasnik Hemijskog Drustva - Beograd, Vol XXX, No 10, 1965.  
CFSTI TT 65-50400/10

Eoc Tap, No 5, 1967.  
JPRS 41,648.

Izvestiya Akademii Nauk SSSR, Atmosfere i Okeanicheskiye, Vol II, No 12, 1966,  
American Geophysical Union

Izvestiya Akademii Nauk SSSR, Fizika Zemlyi,  
No 12, 1966.  
American Geophysical Union

Izvestiya Akademii Nauk SSSR Metally,  
No 2, 1966.  
Scientific Information Consultants Limited.

Izvestiya Akademia Nauk SSSR, Metally, No 3,  
1966.  
Scientific Information Consultants Limited

Izvestiya Akademii Nauk SSSR Seriya Fizicheskaya,  
Vol XXX, No 8, 1966.  
Columbia Technical Translations

Izvestiya Akademii Nauk SSSR Seriya  
Khimicheskaya, No 8, 1966.  
CB

Izvestiya VUZ Radiofizika, Vol IX, No 1,  
Jan-Feb 1966.  
Faraday Press

Kinetika i Kataliz, Vol VII, No 5, Sept-Oct  
1966.  
CB.

Kristallografiya, Vol XII, No 1, 1967.  
Am Inst Phys  
Vol XII, No 1, Jul-Aug 1967

Metallovedenie i Termicheskaya Obrabotka  
Metallov, No 9-10, Sept-Oct 1966.  
CB

Metallurg, No 1-2, Jan-Feb 1966.  
CB.

Metallurg, No 3-4, Mar-Apr 1966.  
CB.

Metallurg, No 5-6, May-June 1966.  
CB.

Metallurg, No 7-8, July-Aug 1966.  
CB.

Nukleonika, Vol XI, No 1, 1966.  
AEC-tr-6647

Okeanologiya, Vol VII, No 2, 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Optika i Spektroskopiya, Vol XXII, No 3,  
Mar 1967.  
Optical Society of America.

Prikladnaya Biokhimiya i Mikrobiologiya, Vol II,  
No 1, Jan-Feb 1966.  
Faraday Press

Radiotekhnika, Vol XXII, No 1, 1967.  
IEEE

Radiotekhnika i Elektronika, No 1, 1967.  
IEEE

Sovetskoye Zhravookhraneniye, No 5, 1967.  
JPRS 41776

Sovetskoye Zdravookhraneniye, Vol XXVI, No 6,  
1967.  
JPRS 41918

Stal, No 3, Mar 1967.  
BISI

Tekhnicheskaya Kibernetika, No 2, 1967.  
JPRS 41786

Tekhnika i Vooruzheniye, No 4, 1967.  
ACSI J-2559

Tekhnika i Vooruzheniye, No 5, 1967.  
\*ACSI J-2962

Trudy Inst Ordzhonikidze, Elektronny Radioi-  
mpulsnyye Vychislitelnyye Systemy Diskrit  
Deyst, No 149, 1962,  
\*FTD-MT-64-69

Tsvetnye Metally, Vol XXXIX, No 2, 1966.  
Primary Sources  
Vol VII, No 2, 1966

Tyl i Snabzheniye, No 9, 1966.  
ACSI J-1066

Tyl i Snabzheniye, No 4, 1967.  
ACSI J-2508

Tyl i Snabzheniye, No 5, 1967.  
\*ACSI J-2961

Tyl i Snabzheniye, No 6, 1967.  
\*ACSI J-2987

Vestnik Akademii Meditsinskikh Nauk SSSR,  
No 5, May 1967.  
JPRS 41,708.

Vestnik Protivovozdushnoy Oborony, No 4, 1967.  
ACSI J-2557.

Vestnik Protivovozdushnoy Oborony, No 5, 1967.  
\*ACSI J-2960

Vestnik Protivovozdushnoy Oborony, No 6, 1967.  
\*ACSI J-2986

Vestnik Zoologiy, No 1, 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Vestnik Zoologiy, No 2, 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Voprosy Ichtiologiy, Vol VII, No 2(43), 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Voprosy Ichtiologiy, Vol VII, No 3(44), 1967.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Voyenno Meditsinskiy Zhurnal, No 3, 1967.  
ACSI J-2334.

Voyenno Meditsinskiy Zhurnal, No 5, 1967.  
\*ACSI J-2984

Voyenno Meditsinskiy Zhurnal, No 6, 1967.  
\*ACSI J-2985

Voyennyy Vestnik, No 4, 1967.  
ACSI J-2507

Voyennyy Vestnik, No 6, 1967.  
\*ACSI J-2929.

Zavodskaya Laboratoriya, Vol XXXII, No 12, 1966.  
Instrument Society of America

Zhurnal Analiticheskoi Khimii, No 1, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 2, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 3, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 4, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 5, 1966,  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 6, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 7, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI,  
No 8, 1966.  
CB

Zhurnal Analiticheskoi Khimii, Vol XXI, No 9,  
1966.  
CB

Zhurnal Eksperimental'noi i Teoreticheskoi  
Fiziki, Vol LI, No 6, Dec 1966.  
Am Inst Phys  
Vol XXIV, No 6, 1967

Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy  
Fiziki, No 1, 1963.  
\*FTD-MT-64-84

Zhurnal Prikladnoy Mekhanika i Tekhnicheskoy  
Fiziki, No 4, 1963.  
\*FTD-MT-64-88

Zhurnal Tekhnicheskoi Fiziki, Vol XXXVI, No 12,  
Dec 1966.  
American Institute of Physics.  
Vol XI, No 12, June 1967

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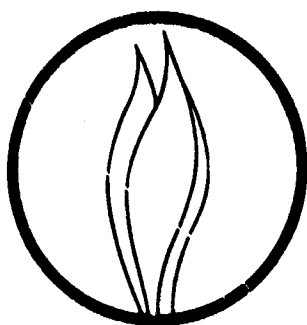
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**EDITOR'S NOTE**

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	cosh <sup>-1</sup>
Arcth	coth <sup>-1</sup> (ctnh <sup>-1</sup> )
Arsh	sinh <sup>-1</sup>
Arth	tanh <sup>-1</sup>
arccos	cos <sup>-1</sup> (arc cos)
arctg	cot <sup>-1</sup> (arc cot)
arcsin	sin <sup>-1</sup> (arc sin)
aretg	tan <sup>-1</sup> (arc tan)
ch	cosh
cosch	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

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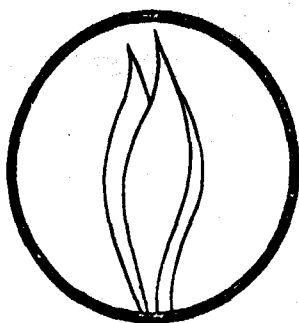
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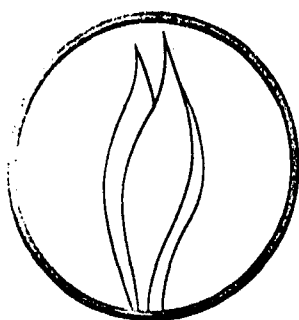
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No 1, 1967

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## EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ (ctnh <sup>-1</sup> )
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ (arc cos)
arccot	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	coth
cosec	csc
ctg	cot (cta)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

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# SOVIET PUBLIC HEALTH

(No. 5, 1967)

- USSR -

Following is a complete translation of the Russian-language periodical Sovetskoye Zdravookhraneniye (Soviet Public Health) No. 5, Moscow, 1967, pp 1-96. Authors and original page numbers of individual articles are indicated beneath the titles thereof.

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Vol. XXVI, No. 6, 1967

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#### RUSSIAN ABBREVIATIONS IN TEXT

AN SSSR.....	Academy of Sciences, USSR.
Arm SSR.....	Armenian SSR.
CC CPSU.....	Central Committee, Communist Party, Soviet Union.
Gintsvetmet.....	State Institute of Non-Ferrous Metals.
Gipronikel <sup>9</sup> .....	State Institute for the Design and Planning of Nickel Establishments.
Giprotsvetmet.....	State Institute for the Design and Planning of Non-Ferrous Metals Industry Establishments.
Giredmet.....	State Rare Metals Scientific Research Institute.
Gosplan.....	State Planning Committee of the Council of Ministers, USSR.
GOST.....	All-Union Standard.
IL.....	Foreign Literature Publishing House.
Kaz SSR.....	Kazakh SSR
L-M.....	Leningrad-Moscow.
Mashgis.....	State Scientific and Technical Publishing House of Literature on Machinery.
Mekhanobr.....	Scientific Research Institute for the Mechanical Concentration of Minerals.
Metallurgisdat.....	State Scientific and Technical Publishing House of Literature on Ferrous and Non-Ferrous Metallurgy.
NTC.....	Scientific and Technical Society.
Oberongis.....	State Publishing House of the Defense Industry.
Sovmarkhos.....	Council of the National Economy.
UAl.....	Ural Aluminum Plant.
VANI.....	All-Union Aluminum and Magnesium Institute.
VUZ.....	Institution of Higher Education.

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**No 5, May 1967**

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Central Intelligence Agency



Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen  
Deputy Director for Operations  
Defense Technical Information Center  
7725 John J. Kingman Road  
Suite 0944  
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in cursive script, reading "Sergio N. Alcivar".

Sergio N. Alcivar  
Chief, CIA Declassification Center,  
Declassification Review and Referral  
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

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ENCLOSURE I



## Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed  
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Page	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0482732	78-03109A	56	1	5	100	Consolidated Translation Survey For April 1966	4/1/1966	203	Approved For Release 3/25/2004
AD0485874	78-03109A	56	1	6	101	Consolidated Translation Survey For May 1966	5/1/1966	250	Approved For Release 3/25/2004
AD0486759	78-03109A	56	1	7	102	Consolidated Translation Survey For June 1966	6/1/1966	265	Approved For Release 3/25/2004
AD0488131	78-03109A	56	1	8	103	Consolidated Translation Survey For July 1966	7/1/1966	178	Approved For Release 3/25/2004
AD0800235	78-03109A	57	1	1	104	Consolidated Translation Survey For August 1966	8/1/1966	264	Approved For Release 3/25/2004
AD0801439	78-03109A	57	1	2	105	Consolidated Translation Survey For September 1966	9/1/1966	211	Approved For Release 3/25/2004
AD0803607	78-03109A	57	1	3	106	Consolidated Translation Survey For October 1966	10/1/1966	247	Approved For Release 3/25/2004
AD0804982	78-03109A	57	1	4	107	Consolidated Translation Survey For November 1966	11/1/1966	203	Approved For Release 3/25/2004
AD0806465	78-03109A	57	1	5	108	Consolidated Translation Survey For December 1966	12/1/1966	234	Approved For Release 3/25/2004
AD0808740	78-03109A	57	1	6	109	Consolidated Translation Survey For January 1967	1/1/1967	277	Approved For Release 3/25/2004
AD0811456	78-03109A	57	1	7	110	Consolidated Translation Survey For February 1967	2/1/1967	234	Approved For Release 3/25/2004
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AD0814969	78-03109A	57	1	9	112	Consolidated Translation Survey For April 1967	4/1/1967	268	Approved For Release 3/25/2004
AD0816126	78-03109A	58	1	1	113	Consolidated Translation Survey Through 31 May 1967	5/31/1967	210	Approved For Release 3/25/2004
AD0818406	78-03109A	58	1	2	114	Consolidated Translation Survey Through 30 June 1967	6/30/1967	271	Approved For Release 3/25/2004
AD0834366	78-03109A	58	1	3	115	Consolidated Translation Survey Through 31 July 1967	7/31/1967	318	Approved For Release 3/25/2004
AD0820905	78-03109A	58	1	4	116	Consolidated Translation Survey Through 31 August 1967	8/31/1967	308	Approved For Release 3/25/2004
AD0822924	78-03109A	58	1	5	117	Consolidated Translation Survey Through 30 September 1967	9/30/1967	330	Approved For Release 3/25/2004
AD0824515	78-03109A	58	1	6	118	Consolidated Translation Survey Through 31 October 1967	10/31/1967	200	Approved For Release 3/25/2004
AD0824581	78-03109A	58	1	7	119	Consolidated Translation Survey Through 30 November 1967	11/30/1967	194	Approved For Release 3/25/2004
AD0832430	78-03109A	58	1	8	120	Consolidated Translation Survey Through 31 December 1967	12/31/1967	100	Approved For Release 3/25/2004
AD0828154	78-03109A	58	1	9	121	Consolidated Translation Survey Through 31 January 1968	1/31/1968	221	Approved For Release 3/25/2004
AD0829939	78-03109A	59	1	1	122	Consolidated Translation Survey Through 29 February 1968	2/29/1968	246	Approved For Release 3/25/2004