



### DOMESTIC COLLECTION DIVISION Intelligence Information Report

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COUNTRY

USSR

DCD REPORT NO.

SUBJECT

Preliminary US-Soviet Exchange of Data DATE DISTR. on Manpower Training and Utilization for Comparison of Methodologies

NO. PAGES

3 Jun 25X1A

REFERENCES

March 1975 and prior DATE OF INFO.

PLACE & DATE ACO. BY SOURCE

SOURCE

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- 1. During the meetings of the Joint Group of Experts in the Field of Science Policy in Moscow in September 1974 members of Subgroup III (Manpower Training and Utilization) agreed to exchange information which would provide some insight into methods used in each country to compile statistics on the training and utilization of manpower. The US accordingly sent data to the Soviets in November 1974, and the Soviets sent some material to the US in March 1975. [Collector's Note: As of early May 1975 the Soviet material was still in the process of being translated and had not yet been seen by Source.]
- ?. It is anticipated that the Soviet material will contain more figures on university graduates to degree fields than by present employment, and it is doubtful that the figures will provide much information on how the rubles are expended. It is further anticipated that there will be problems in interpreting the Soviet data because of differences in their classifications of manpower. For example, in the US people are classified in terms of jobs they are actually doing regardless of what their training might have been. But in the USSR the census lists people according to the field in which they did their academic work, regardless of what they are actually doing: if a person graduates in the field of chemistry he is listed as a chemist for the rest of his life whether he is employed as a chemist or not.
- 3. The material provided by the Soviets is not expected to contain any very meaningful information on the current manpower situation in the USSR since it was agreed that in this particular exchange of data each side would work up one sample year which would demonstrate the methods of compiling such data. The sample year selected by the USSR could thus be 1961, 1965 or some other year, and it would not necessarily contain current information. The exchange of data at this juncture is regarded merely as a procedural step to explain definitions, sampling techniques, bases of classification and so forth. It will be useful in the long run as a basis for future discussions and comparisons, but it will not be of use for purposes outside the study for which it was intended.

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4. There has already been considerable "slippage" in the schedule originally established for the work of the joint group. Since this work has not been given top priority by either country it is possible that more delays may occur. It seems very doubtful that the work will be completed by the summer of 1976, which was the original target

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SESSION OF THE JOINT US - USSR SUBGROUP OF EXPERTS ON PLANNING AND MANAGEMENT OF RESEARCH AND DEVELOPMENT

In accordance with the agreement reached in October, 1974, the Joint US - USSR Subgroup of Experts on Planning and Management of Research and Development held its session in Moscow May 19 - 23, 1975.

The results of the work carried out by the Soviet and American sides of the Subgroup after its last session in October, 1974 were discussed and unanimously agreed to be positive.

mutually accepted in October, 1974. The Sides prepared and presented the detailed responses to the questions listed and exchanged beforehand.

Careful and in-depth elaboration of the answers allowed the American and Soviet experts to improve their understanding of the particulars of research and development management, as well as the specific conditions for the application of the results of research and development in the US and the USSR. Additional verbal explanations and clarification were given during the session.

Participants in the session recognized that publication of the accumulated material would be considered later, after studies on the agreed subjects were completed.

Unanimous opinion was expressed by the experts that the preparation of a Joint Progress Report summarizing the work to date and its future directions is necessary for presentation to the session of the US - USSR Joint Commission on Scientific and Technical Cooperation in October, 1975. To this end, a visit to the USA of two representatives of the Soviet side of the Subgroup for 10 or 12 days in the second half of September was considered desirable.

Approved For Release 2000/09/11: CIA-RDP79-00798A000500130008-1

Tentative subjects for the case studies were proposed during the discussion (Annex 2). The specific subjects to be selected will illustrate the features of planning and management from the stage of the conduct of research and development to its practical application at the national government, industrial sectoral, and firm or enterprise levels.

The Sides discussed the possibility of organizing and conducting regular joint conferences on the problems of management of scientific research and the application of the results of research in industry.

During the recent talks of the co-Chairmen of the Committee on Scientific and Technical Cooperation of the US-USSR Trade and Economic Council, the desire was expressed that joint.conferences be held with broader participation.

The first such conference on R&D management and application of R&D results in industry is intended to be held in the USSR.

The Joint Subgroup agreed that, after study of additional information, there would be an exchange of views within a month on the feasibility, topics and timing of such conferences.

The Sides considered it advisable to begin the preparation of analytic, in-depth papers on vital questions of science policy (Annex 3), which might subsequently be presented at a conference.

A more comprehensive report to be prepared in 1976 will be based on the preliminary work, the in-depth analytic papers covering key issues of research and development management and planning, the case histories which will illuminate comparative methods and practices in planning and management, and the results of workshops or symposia. Such a report would reflect the current trends in both countries. Publication will be considered after completion of the report.

The Sides discussed organizational measures for carrying out the work program and reaffirmed the desirability of exchange visits by authors of papers and case studies, as well as exchange of views between the Coordinators of the two sides between the sessions.

During their stay in the USSR, the US delegation visited the Georgian SSR, and its State Committee for Science and Technology and became acquainted with the planning and management of research and development and implementation of the results of R&D. They were also briefed on the work of separate research and development institutions and enterprises.

The Sides agreed to take into consideration regional aspects of research and development management in their further studies.

The American and Soviet Sides were of the unanimous view that the Subgroup sessions were held in the spirit of mutual understanding and goodwill.

E. Sklyarov

Coordinator, USSR Side of the

Subgroup

W. Carev

Coordinator, USA Side of the

Subgroup

Moscow 23 May 1975

#### LIST OF PARTICIPANTS

SESSION OF THE SUBGROUP OF EXPERTS ON RESEARCH AND DEVELOPMENT PLANNING AND MANAGEMENT OF THE JOINT US - USSR WORKING GROUP ON SCIENCE POLICY

(May 19-23, 1975)

#### The Soviet Side

1.	Sklyarov, E. I.	Coordinator, State Committee for Science and Technology (SCST)
2.	Yefimov, K. A.	Gosplan USSR
3.	Larichev, O. I.	Institute of Management Problems
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7.	Petrenko, L. I.	SCST
8.	Sladkov, V. V.	SCST
9.	Cheremkhina, N. R.	SCST

#### The American Side

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1.	W. Carey	Coordinator, American Association for the Advancement of Science
2.	D. Beckler	National Academy of Sciences
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4.	P. M. Cocks	Hoover Institution, Stanford University
5.	R. Gray	National Science Foundation
6.	N. Robertson	Air Products and Chemicals, Inc.
7.	R. Stern	Xerox Corporation

Department of Commerce

#### CASE STUDIES

#### Subjects of work to be carried out by the Soviet Side

- 1. R&D planning and management for the development of central station heating and power generation by turbines of 250 megawatts capacity.
- 2. R&D leading to new ceramic tile technology.
- 3. Project on the complex mechanization of transportation and storage of materials in the ZIL automobile plant.

### Subjects of work to be carried out by the US Side

- 1. Formulation and execution of a federal program for energy R&D.
- \*2. R&D for civil air traffic control, or R&D for development of numerically controlled machine tools.
- \*3. R&D for the telephone electronic switching system and its phased introduction, or R&D for foamed plastics for use in construction.

It is contemplated that the foregoing subjects of work will be completed by March-April 1976.

<sup>\*</sup>The final themes would be defined after consultation with representatives of relevant organizations.

#### LIST OF SUBJECTS OF THE ANALYTIC PAPERS

- Incentives and overcoming of obstacles to technological innovation and new methods of management.
- 2. Problems and methods for improving the linkage of R&D with production.
- 3. Strengths and weaknesses of systems approaches to planning and managing R&D, including analysis of cost/benefit relationships.

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May 2, 1975

FOR TRAHSMITTAL .

TO ADDRESSEE ans

Dr. E. Sklyarov Head, Science Management Department State Committee for Science and Technology 11 Gorky Street Moscow, U.S.S.R.

Dear Dr. Sklyarov:

On behalf of the American experts, I wish to thank you and your colleagues once again for your helpful responses to our questions. They have improved our understanding of Soviet management practices. In some cases we will ask for more clarification, and we expect that your side will wish to do the same concerning our replies to your questions.

Our side has held a preparatory meeting to consider some possible areas of joint work during the coming months before the high level meeting next October. Because the time is short, we should reach agreements at our May 19 meeting in Moscow and begin work as soon as possible.

So that you will know the present direction of our ideas, I wish to list the American suggestions for the agenda of our May meeting.

### 1. Brief Discussion of Soviet and American Short Answers.

We suggest that the first day be reserved for comments by each side on the short answers to those questions which have already been assigned priority status. In addition, we could consider having each side write a commentary on the responses to its questions.

Dr. E. Sklyarov Head, Science Management Department State Committee for Science and Technology

### 2. (a) Analytic Papers on Significant Topics.

The American side will suggest that three or more topics of mutual interest be selected for the preparation of comparative scholarly papers to be exchanged by September 1, 1975. The topics could be selected, if you agree, from such a list as the following:

- I. Measures of Research and Development Effectiveness.
- Incentives and Obstacles to Innovation.
- Cost, Prices, and Market Strategies in New Product III. Introduction.
- Research and Development Risk Analysis in Comparative IV. Economies.
  - Problems and Solutions for Coupling Research and Development with Production.
- VI. Competition and Duplication as Factors in Research and Development and Economic Efficiency.
- Managing Very Large Projects in a Centralized and a VII. Decentralized System.
- VIII. Strengths and Limitations of Systems Approaches to Planning and Managing Research.
  - Practices in Identifying, Selecting, Developing, and Evaluating Managers of Research and Development.

#### (b) Conference.

When these papers are completed, a joint conference could be arranged in conjunction with the October meeting of the principals. The authors of the matching papers would present their findings as a panel of experts, followed by open discussion.

Dr. E. Sklyarov Head, Science Management Department State Committee for Science and Technology

#### 3. Case Studies.

In accordance with the agreement reached in October 1974, case studies are to be undertaken. Because a case study involves substantial study and research, it is desirable to get started very soon. The American side will be prepared to suggest five possible categories for comparative case studies, and to nominate examples in the U.S. experience for analysis. The general categories we suggest, as frameworks for targeting case studies, are these:

# (a) Research and Development Problem Identification and Management Response.

(The U.S. case study subject might be the National Energy Research and Development Program -- planning and decision making.)

### (b) Research and Development Coordination.

(There are a variety of U.S. approaches to coordination, some in the government sector and others in the industry sector. One possible study would be of the Energy Production Research Institute [EPRI] which is a joint effort of public and private electric power utilities.)

### · (c) New Product Risk Analysis.

This study area would show comparative practices in deciding whether to commit valuable resources to research and development under conditions of technical, cost, and market uncertainties. (The U.S. side would identify a firm which pioneered an innovation under competitive conditions, and report on its decisions and method of risk analysis.)

### (d) Substitution of New for Existing Technology.

This would be a study of the experience of an organization in developing and changing over to a radically new technology despite large investment in existing technology. It would examine such barriers as cost and reliability uncertainties.

Dr. E. Sklyarov Head, Science Management Department State Committee for Science and Technology

## (e) The Behavior of Technological Innovation.

This study would be broader than the others, which would be problem-specific. It would take a firm or other organization with a strong orientation toward innovation, and analyze its methods of mingling research and development with marketing, its decision-making sequences, the philosophy of top management, and the use of the "idea man" as the man-in-charge of the project.

We will offer these suggestions as a starting point. We would be prepared to undertake studies of American practices in three of the five categories, on the assumption that the Soviet side would prepare comparable or parallel studies.

### Exchange of Expert Visits.

In order to permit the fullest communications, the American side will suggest that Soviet and American experts exchange visits at the midpoint stages of writing topical papers and preparing case studies, to review progress and if necessary to revise the agreed scope of the work.

We hope, Dr. Sklyarov, that by furnishing you our advance thinking we have helped to assure a productive and successful working conference in Moscow during the week of May 19.

With high regards,

Sincerely,

William D. Carey

Chairman, Panel on R&D

Planning and Administration

/jw

A Cyrillic version of this letter is in preparation and will follow. P.S.