Comparative Survey of Soviet and US Access to Published Information

~~SECRET~~

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In intelligence we are not often able to catch the Soviets redhanded planning a bit of deception behind the scene. This occurred, however, early in 1957, when the Library of Congress discovered, attached to a book which it had requested from the Tashkent Institute of Railway Engineers, a copy of an internal USS Government memorandum signed by the Deputy Chief of Foreign Relations, Ministry of Railways, to the Chief of the Tashkent Institute granting the latter permission to send the book in question to the Library of Congress, but suggesting that he request, in return, a publication which the Institute needed. It further instructed the Tashkent Institute to inform the Administration of Foreign Relations of the Ministry of Railways concerning future requests received from American libraries as well as the kinds of technical literature exchanged.[1]

Insignificant as this bureaucratic oversight was in the total scheme of things, it did tend to highlight the fact that the Soviets have a controlled program for requesting publication exchanges with the US and also revealed their interest in acquiring and using US publications.

Any US publication available to the American public is also obtainable by

the Soviets with little effort. During the last 10 years various committees within the US Government have tried to introduce controls over unclassified information likely to be of strategic value to the USSR, but as yet no practical system has been developed which effectively denies US published material to the Soviets while making the same data available to US researchers and scholars, and to our allies. On the other hand, Soviet publishing and distribution is maintained under centralized control in Moscow.[2] The Soviets classify, or otherwise limit to administrative channels, much information which the Free World normally releases in the public domain. This has naturally given rise to pressures in the US to impose equivalent controls; but, thus far, no solution has been offered which does not also carry with it the stigma of censorship. The idea of introducing a concerted program forbidding publication of all but prescribed information in the US has been patently rejected as being in conflict with traditional American concepts of free exchange of information.

Whereas in the US publishing is decentralized within the commercial book trade, Soviet publications are printed and distributed under direction from Moscow. Current Soviet publications are listed in the *Hnizhnaya Letopis*'. The *Letopis*' itself was denied the US from 1949 to 1954, and only recently were we able to secure a set for these years by means of an exchange between the Library of Congress and the Lenin State Library. Priced publications listed in the *Letopis*' can be obtained by US purchasers, but there are other items which are footnoted as not available for export. Roughly half of the current scientific and technical papers which relate to military defense or new technological processes are classified by law and therefore do not even appear in the *Letopis*'. Western students of Soviet affairs have long believed that such security requirements may indeed have hampered the quality and progress of scientific research within the Soviet Union. The fact that over-classification can be a deterrent to useful dissemination of information has, in the past year, become apparent in the pronouncements of various Soviet leaders who have called upon both scientific and technical administrators for a more rational approach to security procedures within the USSR. Bulganin emphasized this in his report to the 20th Party Congress when he advocated that the Soviets ". . . reduce secrecy measures to allow a freer exchange of scientific information and opinion."[3]

In addition to security considerations, many Soviet unclassified scientific

and technical journals are published in a limited number of copies and these rarely leave the USSR - sometimes not even Moscow - simply because of the shortage of paper and printing facilities. A copy of a Russian report sent abroad may mean that some Soviet researcher will go without a copy.

In spite of the inherent limitations of the Soviet publishing system, there has been a noticeable effort to disseminate their best publications abroad in the interest of gaining international prestige. Another reason for the increase in material available for export is simply that the Soviets are generating more publications. Good evidence of this exists in the scientific and technical fields: during 1950 the Soviets produced 1,408 scientific serial titles, whereas by 1955 the figure had risen to 2,026.[4]

Intelligence analysts use Soviet publications actively in their daily work. Restrictive as Soviet publishing has been, its products have always been a source of reasonably accurate and current information about the Soviet Bloc. The value to intelligence which derives from exploitation of Soviet literature runs extremely high. It is estimated that roughly 75 to 90 percent of our total economic, scientific, and geographic knowledge of the Soviet Bloc is based on analysis of open source material. Knowing what the Soviets tell their citizens, technicians, and administrators greatly assists intelligence officers in measuring the main stresses, strains, and vulnerabilities of the Soviet system. In general, US open source publications provide the Soviets with certain types of military intelligence and other valuable scientific and technical information, while Soviet publications provide the US with a reliable index to the over-all development of the Soviet system and a multiplicity of facts about its current status.

Steps have therefore been. taken within the intelligence community to make the flow of publications from the Soviet Bloc more productive. Less emphasis has been placed on .US ,denials and more effort expended on better acquisition of Soviet publications in order to increase net. advantage to the US. Exchange procedures, controlled within the US Government, have produced needed Soviet publications in return for US publications requested by the Soviets. Under NSCID 16,[5] CIA, in collaboration with other agencies, has been instrumental in adopting further measures, as follows:

a. Arranging direct and third country procurement of Soviet

publications considered to be of intelligence value.

b. Advising other federal agencies of what to ask for in exchange when they receive a Soviet request.

c. Working with other federal agencies in identifying subject areas of interest to.the Soviets wherein statements of research results might possibly receive some kind of US pre-publication control.

d. Assisting other federal agencies in keeping the flow of Soviet publications to the US as free and open as possible.

and, e. Through the Inter-Departmental Committee on Internal Security and, later, via the Office of Strategic Information in the Department of Commerce, supporting an inter-Agency agreement to establish an Exchange Clearing House at the Library of Congress for coordinating US-Soviet exchanges, with particular emphasis on intelligence and defense needs. This Clearing House is functioning today.

CIA employs three main sources to obtain Soviet publications: (1) the State Department's publications procurement officers in - Moscow, Berlin, and Paris, (2) the domestic and foreign commercial book trade, and, (3) exchange arrangements made via the Exchange Clearing House at the Library of Congress. The "take" has risen sharply during the past few years. In 1953, for example, the Library of Congress reported receipt of 8,250 Soviet items; by 1956, this figure had reached 19,000. Similarly, Library of Congress exchange relations with Soviet libraries and research institutions expanded from 3 to 133 contacts during the past 4 years.

Under CIA sponsorship, the Library of Congress systematically catalogs and publishes a *Monthly List of Russian Accessions*, in English, which indexes all Soviet books and periodicals printed in the Russian language which are received by some 125 cooperating US libraries. This publication is unclassified and therefore is of use not only to the intelligence community but also to researchers in the academic world.

Two other unclassified bibliographic tools are deserving of special mention, namely

1. *The Current Digest of the Soviet Press*, a weekly publication of the Joint Committee on Slavic Studies containing translations of selected articles appearing in Soviet newspapers. It issues a quarterly subject index, to these translations and to English language periodical articles published in the USSR. Although highly selective, the *Current Digest* is one of the more useful bibliographic tools because it is the only English language guide to the Soviet press which is adequately indexed.
2. *The Cyrillic Union Subject Catalog*, a card index to the Cyrillic language book holdings of the Library of Congress and cooperating libraries throughout the US. Citations are given in English and in transliterated form. The Catalog contains about 200,000 author-and-title cards and some 327,000 subject cards. CIA Library has the only duplicate collection of subject cards available outside the Library of Congress.

A complete summary of the major US Government and commercial indexing and abstracting services can be found in *CIA's Selected Reference Aids to Cyrillic Alphabet Materials*.[6]

Exploitation of Soviet publications to meet classified intelligence requirements is performed by CIA's Foreign Documents Division in the Office of Operations which last year examined 15,179 Soviet newspapers, periodicals, and books for intelligence based on requirements submitted by various agencies. The Air Force is also engaged in a large-scale exploitation program. To serve its technical and intelligence needs, it maintains units in Washington and at the Air Technical Intelligence Center in Dayton, Ohio, which examine and translate Soviet publications for a wide range of Air Force interests. The products of both the CIA and Air Force exploitation efforts are disseminated to analysts of the IAC agencies.

Policy with respect to the procurement and use of Soviet publications for intelligence purposes is formulated by the Advisory Committee on Foreign Language Publications. This Committee was established to assist the Director of Central Intelligence in carrying out the provisions of NSCID 16. It is composed of representatives of the IAC and insures coordination of exploitation, reference, and publication procurement activities within the intelligence community.

There is a corresponding effort on the part of the Soviets to acquire and

exploit foreign literature; this has been especially true for scientific and technical materials. One Soviet purchasing agency alone - The Four Continent Book Corporation, in New York City - purchased over $100,000 worth of US scientific and technical publications in 1954. The All Union Institute of Scientific and Technical Information of the Academy of Sciences, USSR, regularly screens and abstracts over 10,000 foreign scientific and technical titles of journals, 80 percent of which derive from US and UK sources.[7] The Institute issues 13 abstract periodicals and 30 "express-information" bulletins based on this literature to some 10,000 Soviet individuals and scientific and industrial bodies. Great emphasis is given to prompt dissemination of foreign technical data. For example, a 9 February 1956 "express-information" bulletin included a Russian language article, illustrated with 2 photographs, on computer mechanisms in the radar warning system SAGE - based on material which had appeared in the US publication *Aviation Week* of 30 January 1956.

The Soviets' intense interest in the exploitation of foreign technical literature seems to be a matter of policy. Bulganin, in a speech made at the Plenary Session of the Communist Party Central Committee, 4 July 1955, said,[8]

> .... Great harm is being done to the cause of technical progress in our country by the fact that many heads of ministries and departments, workers in scientific establishments and planning and designing bureaus and executives of enterprises underestimate the achievements of science and technology abroad. The task of learning and utilizing all that is best and most advanced in the sphere of technology in other countries has been neglected in the last few years. As a result, some research institutes and design organizations have spent a considerable amount of time and money in research on and the creation of what has already been published in the foreign press and is already in use.
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> Some of our personnel have formed wholly erroneous views on the study of foreign experience. These people believe that the study of foreign experience is of no use to them. Actually, such people only reveal their ignorance by arrogant phrases.

> Such views and wrong attitudes regarding problems of studying the achievements of science and technology in other countries must be denounced. Everything new being created by world science and technology must be constantly studied. Scientific- technical information should be improved; relations with the research establishments and progressive scientists of foreign countries should be expanded; the purchase of foreign technical literature and its publication in the USSR should be increased; the work of technical information services in ministries and at enterprises should be improved; and the exchange of advanced experience should be well organized.

From the viewpoint of military planning, the background data contained in US open sources probably supplies the Soviets with as much information as they require for strategic purposes. Given the freedom of the US press and the synthesized form in which its information appears, the Soviets not only receive sound indications of the present scope, size, and rate of progress of major US military programs but they can also re-create with reasonable accuracy US estimates of Soviet capabilities.

A continuing analysis, for example, of open source trade publications and scientific periodicals alone could provide the Soviets with fairly accurate information on the status of the US guided missile program. This is borne out by the fact that the Soviets have published unclassified articles on the program which are detailed as to type, characteristics, and names and locations of manufacturers.[9] Soviet open sources have also contained location and construction details of such strategic projects as the St. Lawrence Seaway, atomic reactor and electric power installations, rail and highway tunnels, and other critical aspects of US power and transportation systems. Just one report, such as the *Organization of the Federal Government for Scientific Activities* published by the National Science Foundation, can give the Soviets a complete, authoritative account of the scope and emphasis of the US Government's scientific research and development programs.

Scientific intelligence specialists believe that information released through US publications on such subjects as transistors, scatter propagation of radio broadcasting by cloud reflection, and wave guides for long distance transmission all resulted in triggering Soviet interest

and research. Since the results of comparable scientific development work are not disseminated outside the USSR, there is, of course, no chance for the US to obtain reciprocal advantages. Also, there seems to be good evidence that the USSR is relying on US technical journals as a means of reducing Soviet expenditures in research and development and shortening the time requirement to introduce new products. A simple and inexpensive way of increasing rubber production by 20 percent was adopted in the USSR shortly after it was described in US published material. Other patented developments are obtainable by the Soviets through the US Patent Office for payment of a small fee.

There are several historic cases where the US probably gave away more information of a specific detailed nature than was necessary or advisable. Notable among these were

a) The MIT Radiation Laboratory series - 26 volumes, published in the period 1947-1950, which gave the world most of the results of US wartime research and development on radar.

b) The Smythe report of 1946 - which contains sufficient detail to enable an expert to avoid blind alleys of expensive atomic research. There is positive evidence that the Soviets used information from this report in setting up their own atomic research program.

Benefits accruing to the Soviets from aerial photographs, maps, geodetic studies, and gravimetric data are particularly great and are significant in that most of this information is openly available to them whereas the Soviet published material in these fields is ordinarily denied to us. Except for some voluntary tightening up within the US Government (for example, certain astronomic and gravimetric data developed in defense programs), little can or has been done to control this situation because it is recognized that in most instances indirect procurement through a third party can be accomplished by the Soviets with very little trouble. When one considers how much time, effort, and money the US spends to locate fragmentary geodetic data about the USSR, it is frustrating to think that they can so readily obtain in the US, for example, any number of large-scale maps and charts from which to position principal US targets for Soviet missile weapons systems.

Our government has found information in Soviet open sources to be of considerable value. In fact, many agencies maintain full-time staffs to examine Soviet literature, and extensive translation facilities have been set up throughout the government for this purpose. To a lesser extent industry is also interested in Soviet publications, and many firms hire Russian language specialists to screen the literature in search of useful technological data.

The production of economic intelligence on the USSR is largely dependent upon published open source Russian material. The statistical handbook entitled *The National Economy of the USSR*, 1956, and a later supplement, have been invaluable in assessing the Soviet economy. In addition to the statistical compilations issued by the Soviets, various technical journals in the fields of industry, agriculture, and finance, as well as those dealing with theoretical aspects of the Soviet economy, are in daily use by our economic analysts.

Potential gains in the review of Soviet published material may be even more significant. For example, Soviet theoretical mathematics leads the world and is freely published; this knowledge of new mathematical functions is important to the long-range advancement of US science. One Soviet paper in which mathematics was applied to an electronics problem, and which was available in this country, could have saved considerable US experimental research time and effort had the paper been discovered and exploited promptly. Soviet open sources have also indicated the areas in which the USSR is ahead of us, such as the development of ceramic cutting tools and of electro-spark and ultrasonic equipment.

Occasionally a Soviet publication can be of direct aid to intelligence work. A prime example of how intelligence can benefit from an openly available publication is the use to which the Biographic Register, office of Central Reference, put the 1951 Moscow telephone directory. The Register transliterated, codified, consolidated, and punched the contents of the directory into IBM machine cards. The information was then organized into three separate lists: by name, by address, and by telephone number. Since in many instances Russians engaged in key research projects work and live together for security reasons, this rearrangement gave CIA some very valuable leads in its intelligence operations and substantive scientific intelligence research. Later, the

Leningrad telephone directory was treated in the same way.

US gain lies, therefore, in making the most of what is contained in Soviet published material. Through effective exploitation, intelligence can develop a reliable yardstick with which to measure the "state of the art" in various fields of Soviet endeavor as well as to evaluate significant military and operational data whenever they appear. Consequently, a great deal depends on the comprehensiveness of US acquisition programs and on the thoroughness of exploitation and translation activities.

There is an underlying difference between the publishing systems of the two countries. A far greater quantity of information appears publicly in the US than is the case in the USSR. This condition exists because the Soviets have considered it "normal" to classify much scientific, technical, and other developmental information as if it were military in nature. Recently, however, there have been signs that these stringent security practices may be relaxed. Both the volume and the quality of USSR publications available for export have increased steadily over the past five years and this trend is likely to continue. Short of some form of censorship or pre-publication control, there is little the US can do to prevent the Soviets from acquiring those US publications which receive public dissemination. The ways and means by which the US can increase its yield of information from Soviet publications are to continue to acquire as much as possible, to promote a greater influx of published Soviet material, to improve and expand translation and exploitation services, to strive for net advantage to the US in all exchanges, and to capitalize on any opportunities to obtain those Soviet publications not normally available for export.

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1 CIA, CR-B-3,800,071, Interest of the Ministry of Railways of the USSR in the Exchange of Technical Literature on a Controlled Basis, 15 April 1957. (Confidential)

2 CIA, 00-M-3,053,549, System of Book Supply to Soviet Libraries, Moscow, 7 March 1957. (Unclassified)

3 "'Report to the 20th Congress of the CPSU," *Joint Press Reading Service*, Section B, No. 54, 23 February 1956. im. 33-34. (Unclassified)

4 *Bol'shava Sovetskaya Entsiklopediya*, vol. 16, 1952, p. 251. Pechat' SSSR,

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5 NBC. NSCM No. 16, *Foreign Language Publications*, 7-March 1953. (Confidential)

6 CIA. CIA/CD-3, Selected Reference Aids to Cyrillic Alphabet Materials, October 1952. (Secret)

7 CIA. CIA/SI 101-57, Soviet Mechanization of Information Processes, 15 April 1957. (For official use only)

8 "Report on Industrial Development," *Current Digest of the Soviet Press*, vol. 7, No. 28, 24 August 1955, pp. 3-20, 24. (Unclassified)

9 Voprosy Raketnoy Tekhniki. Sbornik Perevodov i Obzorov Inostrannoy Periodicheskoy Literatury, Moscow. (Unclassified)