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COORDINATION AND STANDARDIZATION OF RAILROADS IN THE SINO-SOVIET BLOC 1951-59

CIA/RR 59-38

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CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

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FOREWORD

For several years the USSR has been attempting to create within the Sino-Soviet Bloc an economic area independent of and competitive with the West. Industrial development and increases in intra-Bloc trade have resulted in increased demands on the transportation systems of all of the countries of the Bloc. At present the Bloc is dependent predominantly on railroads for the transportation of freight and passengers and is making a most intensive effort toward coordination and standardization of rail transport, with particular emphasis on international freight traffic.

This report examines efforts to coordinate, unify, and standardize the railroads of the Sino-Soviet Bloc. The discussion deals almost exclusively with the economic aspects of these efforts as they apply to rail transport of freight, but the program also has considerable significance with respect to military operations.

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COORDINATION AND STANDARDIZATION OF RAILROADS IN THE SINO-SOVIET BLOC* 1951-59

Summary and Conclusions

The countries of the Sino-Soviet Bloc are making a concerted effort to establish uniform regulations and operating practices for their railroads, to standardize railroad technology, and to coordinate the movement of rail traffic. This effort has been made necessary by industrial development and increases in intra-Bloc trade, both of which have placed growing demands on the existing railroad system. In addition, the USSR is attempting to make the Bloc an economic entity that is independent of and competitive with the West. Because the Bloc relies heavily on railroads for the transportation of freight, its railroad system must be unified and coordinated to be efficient.

Before World War II, rail freight traffic was negligible between the USSR and what are now the European Satellites, and little use was made of the rail connections between the USSR and Manchuria. Under the circumstances the difference in gauge between the railroads of the USSR and those of adjacent countries** was considered to be of less significance economically than as a military defense measure. After World War II, however, the formation of the Sino-Soviet Bloc and the consequent reorientation of trade made a better unified system of rail transport an economic necessity.

Immediately after World War II the USSR and most of the European Satellites entered into bilateral agreements governing rail freight, and in 1951 a multilateral agreement among the Satellites and the USSR became effective governing international freight and passenger traffic. In 1953 the railroads of Communist China, North Korea, and Mongolia also became participants in this agreement, and in 1955 the railroads of North Vietnam were added. These postwar

* The estimates and conclusions in this report represent the best judgment of this Office as of 15 August 1959.

** The rail gauge in the countries of Western Europe and the European Satellites as well as in Communist China is European standard gauge, 4 feet 8-1/2 inches (1.435 meters); in the USSR, broad gauge, 5 feet 0 inches (1.524 meters); and in North Vietnam, narrow gauge (less than standard gauge).

efforts to coordinate and standardize rail transport culminated in 1957 with the establishment of the Organization for the Cooperation of Socialist Railroads (OSShD).*

The long-term objectives of this organization are to achieve uniformity in the regulations, procedures, rates, and technology of rail transport and to coordinate the movement of rail traffic within the Sino-Soviet Bloc. The actions underway or planned for coordination and standardization of Bloc railroads are apparently attempts to adapt measures which have been successfully used in Western Europe to fit Eastern European economic requirements and capabilities. The European Satellites could have joined with the Western European countries in a coordination program had the USSR permitted them to do so. Such action, however, would have frustrated Soviet ambitions for the reorientation of Eastern European trade and would have contributed nothing toward alleviating the difficulty of making connections with Soviet broad-gauge lines. Western European railroads have no single counterpart organization to the OSShD, but in general they are considerably ahead of the Sino-Soviet Bloc railroads in efforts to coordinate and standardize. Although the achievements of the OSShD have been modest, the centralizing of authority in one agency is likely to lead to more rapid development of a unified system of rail transport in the Bloc. Such a unified system not only would furnish more effective economic support for the member nations but also would be readily adaptable to operation under centralized military or civilian authority in time of war or other emergency. In addition, the OSShD provides for admission of non-Communist countries and thus may prove to be an instrument of extending Communist influence in such countries as Iran, Finland, and Greece.

I. International Rail Traffic

Before World War II, rail freight traffic was negligible between the USSR and the countries that are now the European Satellites. These countries at that time traded primarily with one another and with the countries of Western Europe, and it was of minor economic importance that their rail gauge differed from that in the USSR. In the Far East the Chinese Eastern Railway, which connected the Trans-Siberian Railroad with Vladivostok, was of Soviet gauge until the Japanese converted it in 1936 to European standard gauge in order to

* See the footnote on p. 9, below.

conform to the other railroads in Manchuria and China. During the Japanese occupation of Manchuria, comparatively little use was made of the railroad connections with the USSR. 1/*

International rail freight traffic in Europe was governed by multilateral treaties and conventions, bilateral agreements, transportation clauses in commercial trade agreements, and special tariffs. The most important of these controls was the multilateral treaty entitled the International Convention Concerning the Carriage of Goods by Rail (Convention Internationale Concernant le Transport des Marchandises par Chemins de Fer -- CIM). This convention, adopted on 1 January 1892, prescribed regulations for the carriage of goods in international rail traffic. At this time, all countries in continental Europe, including Russia, participated. After the revolution the USSR did not participate, but rail transport between the USSR and adjacent countries was regulated by the terms of bilateral trade and transport agreements, and there were no legal restrictions on the movement of goods between the USSR and any other European country. The USSR also had bilateral agreements with Finland, Iran, and Turkey.

Since World War II, Western trade controls and the pressure exerted by the USSR to bring about economic integration within the Sino-Soviet Bloc have reoriented trade. In recent years, more than one-third of the foreign trade of the European Satellites has been with the USSR, and about one-half of Soviet trade has been with the European Satellites. More than 60 percent of the foreign trade of Communist China is with other Bloc countries, 40 percent of this trade being with the USSR. The bulk of the latter moves by rail. 2/ This extensive trade conducted with the USSR by both the European Satellites and Communist China depends largely on rail transport. Moreover, military planning in countries of the Warsaw Pact is to some extent geared to the rail transport capabilities of the Sino-Soviet Bloc. For these reasons, differences in track gauge, operating regulations, procedures, and standards have assumed greater economic and strategic importance since World War II.

Immediately after World War II the USSR and Poland entered into a rail transport agreement presumably intended to reestablish a legal basis for the interchange of traffic and to take into consideration the changes in national boundaries that had resulted from the annexation of Polish territory by the USSR. 3/ Probably a more important consideration was the desire of the USSR to establish a legal right for transit traffic through Poland to its occupied zone in East Germany. The USSR also entered into bilateral agreements with all the present-day European Satellites except Albania.** 4/ During this postwar period the European

* For serially numbered source references, see Appendix C.
** Albanian railroads do not connect with any other system.

Satellites continued to adhere to the terms and conditions of the CIM governing traffic among themselves and with the rest of Europe. In the east the Chinese Ch'ang-Ch'un Railroad was under joint Sino-Soviet ownership from 1945 until 1952, when, by terms of a treaty, ownership and management reverted to Communist China.

II. Rail Transport Agreement of the Sino-Soviet Bloc (SMGS-SMPS)

As the countries of Eastern Europe came under the sway of the USSR, Moscow undertook to replace the several heterogeneous transportation agreements in force in the Soviet Bloc with one which would conform more closely to Soviet interests. By the end of 1948 the USSR was exerting pressure toward the establishment of a rail transport agreement which would rival, if not replace, the CIM in the European Satellites and in which the USSR would participate.* A rail transport agreement was signed on 6 December 1950 and became effective on 1 November 1951 with the USSR and all the European Satellites, including Albania,** participating. 5/ In 1953 the railroads of Communist China, North Korea, and Mongolia became participants, and in 1955 the railroads of North Vietnam were added. Thus the entire Sino-Soviet Bloc entered into an official agreement to regulate, coordinate, and standardize the terms and conditions for carrying goods and passengers in international rail transport.

The rail transport agreement was entered into by the ministers of transportation of each of the governments of the Sino-Soviet Bloc on behalf of the participating railroad administrations. The agreement is in two parts -- one, the International Rail Freight Agreement (Soglasheniye o Mezhdunarodnom Zheleznodorozhnom Gruzovom Soobshchenii -- SMGS), and the other, the International Rail Passenger Agreement (Soglasheniye o Mezhdunarodnom Zheleznodorozhnom Passazhirskom Soobshchenii -- SMPS). To administer these agreements, a control office known as the Bureau for the Administration of Railroads (Byuro Upravleniya /Zheleznykh/ Dorog -- BUD) 6/ was established at Warsaw under the supervision of the Polish State Railroads. The SMGS (probably

* There was some alarm in the European Satellites because it was not entirely clear whether or not the USSR wanted them to withdraw entirely from the CIM. It seems probable that a complete withdrawal was never intended, because such a move could conceivably have disrupted the flow of traffic between the European Satellites and Western Europe and between the USSR and Western Europe.

** The participation of Albania may be explained by the fact that Yugoslavia had originally been considered as a participant and had planned a rail extension to connect with the Albanian system, thereby establishing connection between Albania and other participants.

the more important of the two parts from an economic as well as a military point of view) established a degree of uniformity in procedures, regulations, and standard documentation for freight traffic, surpassing anything that preceded it in the Sino-Soviet Bloc. Although in many respects almost identical to the CIM, the SMGS goes beyond the terms of the CIM in prescribing a uniform nomenclature for all goods in all international traffic between participants and a standard tariff of freight rates for all transit traffic passing through one or more participating countries. The railroads of Western Europe never have been able to agree collectively to a standard tariff of rates except for small shipments of less than carload lots.

A number of the specific provisions of the SMGS should be mentioned. The railroads of the Sino-Soviet Bloc are obliged to accept and carry any shipment tendered to them by another member railroad system. In view of the large amounts of international rail traffic exchanged by countries of the Bloc, this provision would appear to require coordination in the planning of international transport. Without such coordinated planning, a transit railroad could have difficulty in accepting traffic originating in one country and destined for a third country. Moreover, Article II of the SMGS imposes specific time limits, beginning at midnight on the day of acceptance, for the processing of a shipment. Movement of the shipment in line-haul operation must be performed at a specified number of kilometers per 24 hours, 300 kilometers (km) for fast freight and 150 km for regular freight. Specific time limits are imposed for customs or other border formalities as well as for transloading at points where the railroad gauge changes. Penalties, sometimes rather severe, are imposed on the railroads for failure to maintain these schedules. Either the shipper or the receiver may file claims against a railroad for failure to perform in accordance with the rules of the SMGS, and recourse to the courts is prescribed when a carrier or shipper feels justified in complaining. The agreement also provides for a uniform bill of lading or shipping contract which must be printed in the language of the country of origin as well as in Russian and German, and it must be executed in the official language of the country of origin, with either a Russian or a German translation attached. The bill of lading actually serves as a legal contract between the shipper and the railroad and at the same time functions as a waybill to identify the shipment en route and as a freight bill indicating all charges which may accrue en route. One bill of lading is required for each shipment of a carload or less than a carload from one consignor to one consignee. Exceptions are made for shipments originating on a railroad of less than standard gauge. In that case, one bill of lading may suffice for more than one carload. This exception has evidently been made to enable a shipper located on a narrow-gauge line to meet the minimum weight requirements provided for

in the tariff of rates, because such shipments would be loaded into larger cars at change-of-gauge connecting points. It is also a concession to the railroads of North Vietnam, which are narrow gauge.

In general, the terms and conditions of the SMGS appear to adhere closely to worldwide practice, in that a shipment of one carload or less than a carload from one consignor to one consignee constitutes one legal contract for transportation. Considered in the light of European practice over a period of many years, the SMGS is a normal agreement that clearly establishes the rights and privileges as well as the duties and responsibilities of both the shipper and the railroad. It formalizes in one multilateral agreement uniform conditions equally applicable to all railroads, thus replacing the numerous nonuniform bilateral arrangements of the past within the Sino-Soviet Bloc. Although the SMGS is new and progressive in intra-Bloc relations, there is nothing about it to which the participants may point as evidence of the superiority of Communism. Article 50 of the SMGS provides for the acceptance of new members or participants on condition that none of the present members objects within a period of 3 months from the date of application for membership. This provision could conceivably allow Austria, Finland, Greece, Turkey, or Iran, for example, to become members, thereby extending the sphere of Bloc influence and paving the way for even greater economic penetration.

The Uniform Transit Tariff (Einheitlicher Transittarif -- ETT) is an appendix to the SMGS and has the force of law on all participating railroads. It is probably the best illustration of standardization and coordination in rail transport so far achieved in the Sino-Soviet Bloc. The ETT is a tariff of freight rates for transit traffic and at the same time a uniform nomenclature and classification of goods* for all international traffic. The rates named in the tariff are mandatory for the portion of a movement in transit through one or more participating countries and are permitted but are not mandatory for the portion of the movement within the country of origin and/or destination. The ETT also applies to traffic originating at or destined for a seaport or a Danube River port when the shipment originates in and is destined for a country other than the country in which the port is located. For example, a shipment from Sweden to the USSR by sea to a Polish port and thence by rail to destination would be in transit through Poland, and application of the ETT is mandatory on

* The uniform nomenclature of goods is presently under study by a working party of the Inland Transport Committee of the Economic Commission for Europe (ECE) of the UN for possible adoption by all European railroads.

the Polish railroads. The ETT also applies to shipments originating at or destined for points in nonparticipating countries and moving by rail through one or more participating countries.

The procedure for the application of the ETT is comparatively simple but because of political considerations can become rather complicated in certain instances. The procedure is outlined in detail in Article IV of the ETT. The tariff does not discriminate against any shipment legally acceptable under the terms of the SMGS and the ETT, regardless of the country of origin or destination, and also recognizes and accepts the validity of other international agreements or conventions to which its own participants may or may not adhere, even though the tariff does not mention these agreements or conventions by name.

Generally speaking, Article IV of the ETT provides that the railroad station master of the SMGS railroad receiving from or delivering to a nonparticipating carrier will act as an authorized agent for the shipper and will prepare new documentation in accordance with other international agreements or the legal requirements of the connecting carrier. The shipper must, however, consign the shipment to the station master at the entry or exit station on an SMGS route and must mark the bill of lading for the ultimate consignee and destination. In the event that the SMGS carrier and the connecting carrier do not have any form of agreement for the interchange of traffic, the entire transaction at connecting points may not be imposed on the station master but must be handled by a freight forwarder authorized to act for and on behalf of the consignor or consignee. For traffic entirely within the Sino-Soviet Bloc, the use of the middleman or freight forwarder is obviously never required, resulting in a considerable saving in export-import brokerage fees. All rates and all supplementary charges prescribed in the ETT are in rubles and are collectible at the official rate of exchange in the currency of the country in which payment is made.

Some reports state that the ETT favors the USSR and discriminates against all other participants. These statements are incorrect. Most transit traffic through the USSR is extremely long-haul traffic compared with transit through other (smaller) participating countries. This long-haul transit traffic requires no origin and destination terminal handling and, because of its sheer volume in ton-kilometers,* yields substantial revenue.** Net revenue per ton-kilometer on transit traffic is no greater in the USSR than in any other Bloc country.

* Tonnages are given in metric tons throughout this report.
** For a brief explanation of transit freight rates in the Sino-Soviet Bloc, see Appendix A.

There is considerable evidence, moreover, that many of the tariff provisions are in reality concessions by the USSR to the European Satellites. The requirements for carload minimum weight, for example, are based on the capacities of the freight cars of the European Satellites rather than on the capacities of the heavier Soviet counterparts.

The ETT lists all international border or port terminals and the tariff distances between them, thus providing a simplified method of determining total charges. In addition to ordinary freight rates, exact charges for refrigerated transport, by season, are named. Charges for transloading or for changing wheel sets at change-of-gauge points and for ferrying service across rivers are listed separately as additional payments.

The ETT, in effect since 1951, has been adjusted as the need has arisen. It appears that profit on transit traffic per ton-kilometer equals or exceeds profit on internal traffic. With some room for the downward adjustment of rates, therefore, the ETT can significantly influence foreign trade. Rates can be adjusted to meet changing conditions or to correct inequities, thus aiding in coordination and standardization.

III. Organization for the Cooperation of Socialist Railroads (OSShD)

The adoption by the Sino-Soviet Bloc of the SMGS, including the ETT and the cooperation among railroads required to administer it, brought to the fore many other operational problems, including standardization of rolling stock; interchange of rolling stock; restrictions on axle weight loads, which varied from country to country; signaling; and track. The organization BUD* was not technically constituted to solve these problems, nor was it legally competent to do so. Its sole function was to administer the SMGS-SMPS agreement. At a meeting of transport executives in Sofia in 1956 the various problems of operations, equipment, and rolling stock were discussed. It was even suggested that complete standardization of track gauge and rolling stock to conform to the Soviet gauge should be considered. This suggestion was temporarily postponed because of prohibitive costs. It was proposed, however, that the functions and authority of the BUD should be extended to include the inherent problems of uniformity and standardization of all elements of rail transport. Among the suggestions put forth were standardization of operating rules, design of rolling stock, track, track structures, signaling equipment, and brakes. Apparently the suggestions were seriously considered, for a meeting was held in Peking from 12 to 25 May 1957 and was attended by

* See II, p. 4, above.

delegates from all the Sino-Soviet Bloc countries. The delegates discussed and approved alterations to the SMGS and amendments to the ETT which resulted in a reduction of some freight charges. The delegates also prepared information, presumably working papers and agenda, for a conference of ministers of transportation which convened in Peking from 27 May to 7 June 1957, immediately following the meeting of the working group. 7/ The outcome of the ministers' conference was the foundation of the Organization for the Cooperation of Socialist Railroads (OSShD*). The scope of the functions, responsibility, and authority of the OSShD goes far beyond the original concept of the BUD and the SMGS-SMPS. The BUD ceased to exist as a separate entity, and the functions of that agency among others were delegated to the Rail Transport Commission of the OSShD in Warsaw. 8/

A. Legal Status 9/

The OSShD, which coordinates and standardizes rail traffic in the Sino-Soviet Bloc, was founded by an international treaty (ratified by all countries of the Bloc) that came into force on 1 September 1957. Its authority is derived from its statutes and amounts to a delegation of authority from participating governments. Over-all policy and management are vested in the Council of Ministers of Transportation of member states. This Council meets regularly once a year but may meet more often if circumstances so dictate. It is legally constituted when two-thirds of the members are present. All decisions of the Council must comply with the laws of the member states or, if outside the scope of Council authority, must be referred to the member states for ratification.

Executive authority to manage the day-to-day affairs of the OSShD is delegated to the Rail Transport Commission, with headquarters in Warsaw. On the Commission, each member state has one member who is selected from among the railroad officials of member state railroads. Each member has one vote. The chairman, two deputy chairmen, and a secretary of the Commission are appointed by the Council from members of the Commission. The Commission is empowered to make decisions on problems within its jurisdiction provided that at least two-thirds of the members approve. Decisions of the Commission become obligatory upon all railroads of all member countries provided that no objection is raised by a member of the Council within 2 months of the date of the decision. The Commission is directed to publish an official bulletin in the Chinese, German, and Russian languages, containing all

* Also known as OCR. OSShD is the German transliteration for the Russian OSZhD -- Organizatsiya Sotrudnichestva Zheleznykh Dorog, the German translation of which is Organisation fuer die Zusammenarbeit der Eisenbahnen.

decisions of the Commission as well as selected technical studies or papers affecting all member railroads. The Commission employs a staff of technical experts. It is financed by dues paid by the member states, and dues are assessed according to the length of railroad route in each state.*

B. Scope of Activity 10/

The OSShD has been assigned the following responsibilities within the Sino-Soviet Bloc:

1. Administration of the SMGS-SMPS agreement on rail traffic, compilation of international rail tariffs, improvement of operations at frontier stations, and coordination of problems relating to construction and reconstruction of international routes.

2. Solution of problems concerning efficient use of rolling stock, improved schedules, and reduced time for rail movements.

3. Organization and coordination of scientific and technical research related to rail transport.

4. Solution of such operational problems as standardization of routes, rolling stock, signals, and operating regulations as well as development of the most rational methods of traction.

5. Cooperation with other international organizations dealing with rail transport and traffic problems.

For purposes of comparison, these responsibilities in Western Europe are vested in a large number of organizations, offices, and agencies, only a few of which have legal authority to make binding decisions.

There is no evidence that the OSShD is a subsidiary body of the Council for Mutual Economic Assistance (CEMA). Membership in the OSShD includes all nations of the Sino-Soviet Bloc, whereas membership in CEMA does not include Communist China, Mongolia, North Korea, and North Vietnam. Moreover, whereas the CEMA transportation committee appears to be a policymaking agency for its members, the OSShD is an administrative, implementing, and operating authority for policies, plans, operations, and traffic.

* It is not clear whether this length applies to the total route or only to the international routes prescribed in the SMGS-SMPS.

C. Functional Committees 11/

When the OSShD was organized originally, the responsibility for the study and solution of problems confronting the railroads was entrusted to 10 functional committees of the Rail Transport Commission in Warsaw. In July 1958 an eleventh committee on motor vehicle traffic and highway systems was instituted. Each committee is under the chairmanship of a permanent national delegate to the Commission. The committees are authorized to draw on the services of technical experts from the railroads of member countries in addition to those employed on the permanent staff.

Because the OSShD has been in existence only since September 1957, there has hardly been time for any spectacular achievements. Nevertheless, the committees have been active and have made a number of recommendations which have been adopted by the Commission, thereby acquiring the force of law. The nature of the committee tasks and the specific problems under study are evidence of intended goals.

1. Committee No. 1 is responsible for the study and improvement of passenger traffic and is under the chairmanship of the delegate from Communist China. This committee supervises the SMPS* and has been studying plans for improving passenger comfort; establishing an international sleeping-dining car enterprise; standardizing and coordinating financial liability for deaths or injuries of passengers in international traffic; and preparing a uniform tariff for the rail transport of passengers, baggage, and express parcels in the Sino-Soviet Bloc. No reports of committee activity have been made available, but Committee No. 6 has announced the adoption of standards of design for passenger cars incorporating standard windows and heating and lighting equipment. A resolution also has been adopted to establish a Bloc-wide sleeping-dining car enterprise. This enterprise may develop into a jointly owned and operated pool of sleeping and dining cars and a personnel staff under a single managing agency, probably an office of the Rail Transport Commission. At present, some passenger cars crossing the Soviet borders are designed for easy change of wheel sets at the border, and through car service is available between the USSR and many European Satellite cities as well as between the USSR and Communist China.

2. Committee No. 2 is responsible for the study and improvement of freight traffic and is under the chairmanship of the delegate from Hungary. The committee supervises the SMGS.* Effective 1 January 1958, changes were made in the SMGS which will affect freight charges and may eventually be reflected in a reduction in costs of goods. For example, some perishable goods which formerly required an

* See II, p. 4, above.

escort may now be shipped without escort, thereby eliminating the escort fee of 3 rubles per 100 km. Freight rates and supplementary charges which were formerly collectible on the basis of rates in effect on delivery are now collectible on the basis of rates in effect on the date of shipment. This rule precludes an increase in charges after the transport contract has been signed. The time allowed for transloading at change-of-gauge points has been increased from 24 to 48 hours. A new and more permanent text of the SMGS is under study by the committee.

3. Committee No. 3 is responsible for tariffs and is under the chairmanship of the delegate from Bulgaria. It administers the ETT and studies ways and means of establishing more uniformity in other international tariffs. The original 1951 issue of the ETT was completely revised and reissued in 1956. Because the 1951 issue has never been available for study, the nature and significance of the changes in the 1956 issue are not known. Since 1956, some rather significant adjustments have been reported. For example, a shipment of a commodity with a carload minimum requirement of 10,000 kilograms (kg) and actually weighing 10,100 kg would previously have been charged for at 11,000 kg. Under the change the same shipment is now charged for at a rate per 100 kg for the exact weight of 10,100 kg. This change has resulted in a reduction in charges for identical shipments and is more in line with worldwide practice.

The most recent significant changes in the ETT are the result of a conference of the committee held in Warsaw in March 1958. 12/ The tariff formerly prescribed different carload minimum weight requirements for cars of 20-ton capacity and for cars of 25-ton capacity. Effective 1 January 1959, only one carload minimum will be applied regardless of the type or capacity of the car used. In practically every instance the minimum requirement has been adjusted downward, and the rate applicable per 100 kg remains the same. In the few cases where there has been an upward adjustment of the minimum weight requirement on a given commodity, there has been a compensating downward adjustment in the freight rate. The function of the committee goes beyond the administration of the ETT and is applicable to all international tariffs within the Sino-Soviet Bloc, such as a tariff prescribing export-import freight rates between Poland and the USSR. If the basic concepts of uniformity and standardization are carried out, an export-import tariff between Bulgaria and Rumania, for instance, would be identical to the Polish-Soviet tariff. A more specific and extensive alphabetical classification of goods has been adopted, and a definite method of relating rates to costs has been prescribed. Neither rule is available for analysis.

4. Committee No. 4 is responsible for rail transport operations and international border stations and is under the chairmanship of the delegate from the USSR. The committee is attempting to develop more efficient methods of using rolling stock and to expedite customs and other international border operations. At the third conference of the Council of Ministers of Transportation a resolution was adopted instructing the committee to study and solve the question of establishing a freight-car pool for railroads with standard gauge and to be prepared to present its proposals for approval at the next meeting of the Council (within 1 year). As the matter now stands, the member railroads have agreed on an interchange of freight cars, with the user railroad paying a rental fee for a freight car during the time that the car is in possession of this railroad.

A similar agreement is in force in Western Europe, the RIV (Regolamento Internazionale Veicoli), to which all the countries of the European Satellites have subscribed since 1921. Railroads are supposed to observe a home loading rule and to use empty cars for loading back to the country of ownership. When unable to load back, the railroad is supposed to return the empty car as expeditiously as possible to the owner railroad. Western European experience (and apparently Eastern European experience as well) shows that such agreements present at least two problems in practice. First, the user railroad is inclined to use the foreign car for domestic traffic in peak seasons and to pay the prescribed rental fee rather than to invest in new cars. This practice can deprive the owner railroad of rolling stock, thereby creating a shortage. Second, in order to avoid rental fees, empty cars are returned to the owner with little effort to observe the home loading rule, thereby wasting capacity. The creation of a freight-car pool would go a long way toward solving these problems.

A freight-car pool has been organized in Western Europe and works in the following manner. Each of the countries concerned contributes a number of freight cars based on the amount of export-import traffic of the country concerned. Cars are of a standard design capable of operation over all routes. Each car is identified as a pool car by a special symbol indicating its availability for use by the pool and also a symbol or marking to identify ownership. Cars are used in accordance with priorities, as follows: (a) international traffic between pool participants, (b) internal traffic, and (c) international traffic to nonparticipants. At a specified hour each day, railroad administrative divisions of the Western European pool report to their headquarters the exact number of cars received from foreign systems and dispatched to foreign systems and the number of cars on hand. Railroad management then reports the collective information to a central car pool office in Berne which determines and orders the necessary movements

to maintain the original pool balance, regardless of ownership. No rental fees are charged. Running maintenance and repair are performed by the railroads having possession, and cars are returned to the owner for general overhaul once every 3 years. This scheme has drastically reduced movements of empty cars in Western Europe, and an adequate supply of cars when and where needed is maintained.

In view of the fact that recommendations of Committee No. 6 of the OSShD have been adopted prescribing standards for freight cars to be constructed or altered for international use, the USSR and Communist China could conceivably participate in such a freight car pool. Efforts are being made to improve and coordinate operations at border crossing points. Poland and East Germany are reported to have reached an agreement on the subject of expediting border formalities, 13/ the details of which are not known. In transborder traffic, however, matters of health (quarantine), customs (control of prohibited articles or the collection of duties for revenue purposes), and travel control (immigration-emigration) have always been major problems. Committee No. 4 has an extremely important function because certain duties must be performed at international borders to protect all concerned. The problem of quarantine possibly may be solved with an agreed certificate of immunization acceptable to all the countries involved, thereby eliminating the need for a physical check of each animal, person, or commodity to which a quarantine certificate may be applicable. The problem of customs inspection for transit traffic may be solved by a simple comparison of documentation with railroad car seals and without a physical check of merchandise. Customs inspection of import-export traffic at border points may be waived if inspection is performed and duties are imposed at some origin or destination stations and if the railroad operates as a bonded carrier authorized to act on behalf of the customs authorities. In passenger traffic, all inspections can be handled by teams of officials while trains are moving, thereby eliminating delays at border points. International trains operating between West Germany and Austria, for example, are now inspected in that manner. A team consisting of health, customs, and travel control officers of these two countries boards a southbound train in Munich, Germany, and by the time the train arrives at Salzburg, Austria, all border control formalities have been completed, and the trains maintain a precise schedule.

5. Committee No. 5 is responsible for technical and scientific coordination and research and is under the chairmanship of the delegate from Rumania. The committee met in Bucharest in March 1958 and coordinated plans for the exchange of research aids and technical documents on the subject of transportation and for familiarization trips into the various countries of the Sino-Soviet Bloc by experts of all railroads. It was agreed that no authors' royalties would be charged and no licenses required for the exchange of documents or films and other

visual aids. The committee has under study the automatization of yards, the types of electric power most suitable for adapting to railroad electrification, and the use of reinforced concrete in construction. The functions of the committee are comparable with those of the Office of Research and Experiments in the International Union of Railroads (Union Internationale des Chemins de Fer -- UIC) in Paris. All European Satellite railroads are members of the UIC, and the committee undoubtedly will make use of and apply the findings of the UIC when they suit its purpose.

6. Committee No. 6 is responsible for the standardization of railroad cars (including both passenger and freight cars), spare parts, and track and is under the chairmanship of the delegate from East Germany. 14/ The committee has prepared standard specifications, which have been adopted, for the manufacture of new rolling stock and the alteration of existing rolling stock. The specifications provide for a standard freight car of one design that is currently in use in the USSR but is not identical with all Soviet freight cars. Brakes, bearings, wheels, axles, and practically all components of the running gear of this freight car are standardized down to the last detail, including the size of the spring leaf and the type of thread on a bolt or a nut. The specifications include the maximum width and height of a freight or passenger car as well as the maximum permissible axle load. The axle load limit has been raised from 17 to 20.5 tons, thereby permitting the construction and use of higher capacity cars in international traffic. This standardization, although legally binding only on cars for international traffic, will obviously be reflected in all production and may lead to a greater degree of standardization and specialization in production facilities. The standards adopted for cars conform to similar standards adopted for route construction on the recommendation of Committee No. 9. Committee No. 6 has been instructed to develop designs for cars adaptable to conversion for use on broad-gauge and standard-gauge track. If the committee is successful in this venture, all European Satellite cars would be suitable for use on Soviet routes and a greater number of Soviet cars would be suitable for use on European Satellite and Western European track than at present, provided, of course, that vertical and lateral clearances on routes are altered to accommodate the larger cars.

7. Committee No. 7 is responsible for the study and solution of problems pertaining to safety equipment, signaling, and operating rules and regulations and is under the chairmanship of the delegate from Poland. In February 1958 the committee met in Sofia and worked out recommendations for the establishment of direct telephone and telegraph communications among member railroads. Although the exact recommendations are not available for study, the ultimate goal is to establish direct telephone and telegraph service, operated and maintained

by the railroads, among all member railroads at all levels. Such a system could be patterned after the direct dial BASA system which was designed by the Germans before World War II and is still in use in both West and East Germany. This system is independent of ordinary telephone service and, for that matter, of the regular railroad telephone service. The caller simply dials the code number for a given railroad division headquarters or principal station, whereupon a recording device identifies the station and the caller dials the extension desired. If this system is established, it will provide a highly secure land line of communication among all railroads which would be extremely useful economically and militarily. The third issue of the official bulletin of the OSShD published in Warsaw in 1958 reported that by mid-May 1958 the following long-distance telephone lines were in operation: Warsaw - Moscow - Peking, Warsaw - Moscow - Ulan Bator, and Berlin - Warsaw - Moscow.

8. Committee No. 8 is responsible for studies of train movements and use of motive power and is under the chairmanship of the delegate from the USSR. The committee met in Warsaw, Budapest, and Sofia in 1958 to discuss and solve problems of electrification and dieselization. The results of the conference are not available, but it is presumed that standardization of electric and diesel locomotives and the selection of the most economical traction equipment for each country, depending on traffic density and availability of power and fuel, are the problems under study.

9. Committee No. 9 is responsible for the study and solution of problems relating to route construction and is under the chairmanship of the delegate from Communist China. It has made recommendations, which have been adopted, for minimum clearances in route profiles. 15/ Exact specifications for clearance between double-track lines and between track and station, for overhead clearances, and for other fixed line facilities have been prescribed. The maximum pressure per axle or per meter of track has been prescribed and corresponds to rolling stock limitations prescribed by Committee No. 6. In East Germany, action is being taken to increase the minimum vertical clearance from 4.8 to 5.5 -- and the minimum horizontal clearance from 4.6 to 4.9 -- corresponding to present Soviet clearances. 16/ It has been reported that at least five main lines in East Germany were surveyed for conversion as early as May 1956. It was also reported that the Berlin Outer Ring provided for the clearance of rolling stock of the Soviet type when it was originally constructed in 1956. If such conversion is taking place in the occupied zone of East Germany, it is apparent that similar action must have taken place in Poland; otherwise a restrictive barrier between the USSR and East Germany would be imposed. If and when these clearances become fact, there will be no physical restrictions on the movement of a Soviet freight car from the USSR to the border between East and West Germany.

10. Committee No. 10 is responsible for the coordination of OSShD activities with other organizations engaged in similar work and is under the chairmanship of the delegate from Czechoslovakia. The committee has been instructed to cooperate with the Economic Commission for Europe (ECE) of the UN in Geneva, the Berne Central Office of the CIM in Berne, and CEMA. The OSShD has been invited by the secretariat of the transport committee of the ECE to send observers to the Geneva meetings. At the third conference of the Council of Ministers of Transportation the question of cooperation with the Western European Conference of Ministers of Transportation was discussed. 17/ The committee was instructed to make no immediate contacts but to study the activities of the Western organization. The committee also was instructed to cooperate more closely with CEMA, and it was resolved to coordinate the transportation plans of all member countries.

11. Committee No. 11 is responsible for motor vehicle traffic and highway systems and is to be under the chairmanship of the delegate from East Germany. This committee was established by unanimous agreement of the Council of Ministers of Transportation in July 1958. Its exact functions are not known.

D. Strategic Significance

There is no evidence at this time that the over-all functions and activities of the OSShD are directly dictated by the requirements of the Warsaw Pact. Nevertheless, the coordination achieved to date and the plans for further coordination and standardization will provide a unified complex of operational conditions and practices that in time of war or other emergency would facilitate the integration of the rail transport system throughout the entire Sino-Soviet Bloc under the direction of a single civilian authority or a unified military command. The most important features of the program from a strategic point of view are those dealing with the standardization of line clearance profiles, rolling stock, and signals and the establishment of railroad-operated telecommunication facilities throughout the entire Bloc network. There is some evidence that strategic requirements do have some influence in these matters.

The first logical step in improving the strategic effectiveness of the railroads would be to increase the clearances along fixed line facilities on the standard-gauge systems of the Satellites and to strengthen the roadbeds, thereby permitting the movement of wider, higher, and heavier rolling stock of the Soviet type over standard European-gauge track. There is considerable evidence that action to accomplish these objectives is underway, at least on the main internationally strategic routes. The second step would be to design all new rolling stock so that it could be converted easily to either Soviet

or European standard gauge by changing wheel sets. Action is underway to accomplish this. When these two steps are fully accomplished, a conversion of rail from standard to Soviet gauge in case of war or other emergency would be possible in a relatively short period of time. A uniform Soviet-gauge railroad line from the Pacific Ocean to the borders of Western Europe over even a few main routes would certainly have great strategic as well as economic significance, and a standardized system of railroad operations would greatly facilitate military operations.

APPENDIX A

TRANSIT FREIGHT RATES IN THE SINO-SOVIET BLOC

Transit freight rates for the Sino-Soviet Bloc are published in the Uniform Transit Tariff (Einheitlicher Transittarif -- ETT) only for movements of carload lots in regular service. Special provisions in the tariff, however, provide for corresponding increases in rates for express service, fast freight service, and shipments of less than a carload. The various services are defined as follows:

Express -- carload freight in scheduled passenger trains.

Fast freight -- scheduled freight trains at a rate of 300 km per 24 hours.

Regular freight -- scheduled freight trains at a rate of 150 km per 24 hours.

Less than carload -- a shipment of less than the weight norm (carload minimum) prescribed by the tariff.

The following rates are for regular freight service in carloads:

Class	Examples	Rate (Kopecks per Ton-Kilometer)*
1	Telephone cable	8
2	Shoes	7
3	Machinery	6
4	Electric transformers	5
5	Canned vegetables	4.5
6	Newsprint	4
7	Bread grain	3.5
8	Iron and steel bars	3
9	Lumber or coal	2.5
10	Construction stone	2

* For express service, multiply by three; for fast freight, multiply by two; and for less than a carload, the rate is 50 percent higher in express, fast freight, or regular service. One hundred kopecks equal 1 ruble. Ruble values in this report are expressed in current rubles and may be converted to US dollars at the official rate of exchange of 4 rubles to US $1. This rate of exchange, however, does not necessarily reflect the true dollar value.

In 1956 the average revenue received per ton-kilometer in the USSR was 4.2 kopecks, or just between the transit rates for classes 5 and 6. That average includes short-haul traffic of coal, ore, building materials, and other low-class, low-rate goods, whereas transit traffic would ordinarily consist of higher class goods such as machinery, chemicals, and food products. It is evident, therefore, that transit traffic is profitable for the USSR. Nevertheless, a comparison of transit rates across the USSR with internal rates for an equal distance reveals that transit rates are lower than internal rates. This statement applies equally to the long haul (7,700 km) from Communist China to Poland or to the comparatively short haul (1,290 km) from Finland to Poland. Transit rates per ton-kilometer are identical in all Sino-Soviet Bloc countries. Transloading of freight at change-of-gauge points is a separate charge in the tariff and must be paid by the customer. Therefore, assuming that line-haul costs per ton-kilometer are reasonably uniform throughout the Bloc, the short-haul railroads of the European Satellites earn as much net revenue per ton-kilometer of traffic as the Soviet railroads.

APPENDIX B

GAPS IN INTELLIGENCE

The gaps in intelligence on coordination and standardization of rail transport in the Sino-Soviet Bloc are general rather than specific. Until very recently, little effort had been made to collect information on the subject, but that situation has now been corrected, and more information is beginning to be obtained, although not yet in the detail desirable.

APPENDIX C

SOURCE REFERENCES

Evaluations, following the classification entry and designated "Eval.," have the following significance:

Source of Information	Information
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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