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**ECONOMIC INTELLIGENCE REPORT**

125

**THE ECONOMY OF EAST GERMANY**



CIA/RR 51

11 February 1955

**CENTRAL INTELLIGENCE AGENCY**

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ECONOMIC INTELLIGENCE REPORT

THE ECONOMY OF EAST GERMANY

CIA/RR 51

(ORR Project 16.139)

CENTRAL INTELLIGENCE AGENCY

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FOREWORD

This report is a more recent and more comprehensive study of the East German economy [redacted]

[redacted] Its aim is to examine East German economic policy and administration to gain a better understanding of how Soviet-type economies operate and to analyze the structure and functioning of the principal sectors and industries of the East German economy in order to assess their strengths and weaknesses.

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THE ECONOMY OF EAST GERMANY\*

Summary

The economy of East Germany\*\* closely rivals that of Poland as the best developed and most productive among the European Satellites. Its gross national product (GNP) of about US \$14.0 billion in 1953 equalled 11 percent of the Soviet GNP. Moreover, East Germany is, in a relative sense, the most industrialized country in the Soviet Bloc. In East Germany a larger proportion of the 1953 GNP originated in industry and a smaller proportion originated in agriculture than in any other Bloc country. Since real Soviet control of the area continues undiminished, these measures of East Germany productive capacity must be considered in any appraisal of Soviet capabilities.

Like the other European Satellites, East Germany has been progressively remodeled on the Soviet pattern since the war. Transportation, the greater part of industry, most financial institutions, and much of the foreign and domestic trade are nationalized. The shrinking private sector of the economy has been tied more and more closely to the state-directed sectors. Economic policy has followed the Soviet example in stressing the expansion of heavy industry, and economic planning and administration represent faithful attempts to follow current practices in the USSR. Government measures permitting the compulsory assignment of workers to particular places of employment supplement Soviet-patterned wage differentials as a means of allocating workers to various industries and occupations.

Only in agriculture has the Soviet reshaping of the East German economy failed to develop to a comparable extent. The eventual goal of complete socialization of agriculture has been made explicit, however, and remains in effect despite the concessions of the "new course" in the latter half of 1953. Paralleling these developments has been a continuing effort by the USSR to strengthen the East

\* The estimates and conclusions contained in this report represent the best judgment of the responsible analyst as of 15 August 1954.

\*\* For a map of East Germany, see inside back cover.

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German Socialist Unity Party (SED) [the East German Communist party] —  
the instrument through which a large degree of Soviet control is exercised.

Under the direction of the USSR, the East German economy is being integrated with that of the rest of the Soviet Bloc. About 75 percent of the foreign trade turnover of East Germany is currently with other Bloc countries, and the greatest part of that is with the USSR. As an advanced industrial area, East Germany is an important supplier of machinery, chemicals, electrical engineering products, and precision equipment. In return it receives from the USSR and the Satellites primarily agricultural and industrial raw materials, food, mineral fuels, and lubricants, together with certain manufactured products.

The scale of living in East Germany is still considerably below prewar levels. Several factors have contributed to this situation: (1) production of investment goods has been favored at the expense of consumer goods; (2) the population of the present area is about 10 percent higher than before the war, and East Germany has been obliged also to support the Soviet occupation troops; and (3) reparations and other uncompensated deliveries have imposed a heavy burden on the East German economy. In 1952, unfavorable weather resulted in poor yields of potatoes, sugar beets, and fodder, and harvesting was disrupted by the newly instituted drive for collectivization. At the same time, the government sought to add food to the state reserves. As a result of these circumstances, the scale of living in 1952 declined for the first time since 1947. Not only did the scale of living decline in the latter part of 1952 and early 1953, but the East German regime also adopted a number of harshly repressive measures of a political nature. As a consequence, migration from East to West Germany reached new high levels.

On 9 June 1953 the SED announced that the policies adopted and the actions taken during the preceding year as part of the program of building socialism had been incorrect and that its "new course" would be to improve living standards by increasing the production of consumer goods at the expense of the projected growth of heavy industry. On 17 June, widespread rioting occurred throughout East Germany. The increases which had just been made in work norms probably may be regarded as the spark that finally transformed diffuse, latent hostility to the regime into active protest. Following the riots, there were further concessions and a hastening of their implementation.

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The implementation of the "new course" has been materially aided by the USSR. In August 1953 a lengthy protocol providing a number of concessions to East Germany was announced jointly by the governments of East Germany and the USSR. These concessions included cessation of reparations deliveries, the return of Soviet-owned companies in East Germany to German control, and the promise of a large loan on the foreign trade account. In July 1953, moreover, Soviet shipments of foodstuffs to East Germany increased significantly.

Under the "new course," plans for investment in heavy industry have been cut back, and plans for production of consumer goods have been raised. Prices and taxes have been reduced, and wages have been somewhat increased. If the diversion of resources from heavy to consumer goods industries takes place as planned, it will be possible for retail trade turnover to increase substantially, and if East Germany is indeed freed from Soviet exactions, the projected increase in consumption is feasible. The leaders of the East German regime have emphasized, however, that the "new course" is not a retreat from the basic aim of achieving socialism but is instead a better way of realizing this goal.

Aside from the difficulties reflected in the adoption of the "new course," the East German economy has made an impressive recovery from the extremely low levels immediately following the war, when direct Soviet exploitation through the dismantling of plants, collection of war booty, and uncompensated withdrawals from current production was at its height. Beginning in 1948, recovery was fairly rapid. In 1953, however, East Germany's estimated GNP was still slightly below the level of 1938. The annual rate of increase in GNP was about 8 percent in 1952 and 1953. This is approximately the annual rate of increase which is expected in 1954 and 1955 as well. The "new course" is not likely to affect the over-all rate of growth substantially during the next 2 years but rather is expected to change the composition of production, and that to a limited degree.

In 1952, East Germany's agricultural production as a whole was still about one-tenth below the 1938 level. The area under cultivation is slightly less than before the war. Yields per hectare of such important crops as bread grains, coarse grains, potatoes, and sugar beets are still below the 1935-39 averages. Meat production did not regain the prewar level until 1952, when excessive slaughtering took place because of a shortage of fodder.

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Production in the agricultural sector no doubt has been affected adversely by the broad program of economic regimentation directed toward socialization. Among the elements of this program may be mentioned the land reform, which altered the pattern of land ownership fundamentally, and the establishment of the machine and tractor stations as an instrument for both increased mechanization of farming and more effective government control of the independent farmers. Formation of agricultural producers' cooperatives was vigorously promoted up to mid-1953, when a more conciliatory program fitting to the "new course" was inaugurated. In September 1953 there were about 4,800 agricultural cooperatives, which accounted for 15 percent of the total arable land. A limited number of state farms have also been organized. These are probably more important for their development work (for example, the improvement of seed and livestock breeds and the promotion of more efficient farming techniques) than for their production of agricultural commodities.

A comprehensive system of delivery quotas levied on the peasants is a vital part of a Soviet-type planned economy. East Germany employs this mechanism to exert a degree of control over the relative amounts of commodities produced, to obtain on favorable terms a portion of output to be marketed in the cities or to be exported, and to exert pressure on and generally discriminate against independent farmers, particularly those with the larger holdings. The 1955 goals for agricultural production do not seem unreasonable in view of the area's prewar achievement, but it is doubtful whether they will be reached, because of the farmers' reactions to governmental efforts to socialize this sector.

The growth of industrial production since 1948 has been impressive. Nevertheless, industrial output in 1953 did not exceed the 1938 level. Furthermore, the investment plans of recent years, on which the planned increases in industrial output during the remainder of the Five Year Plan largely depend, have not been fulfilled. A variety of factors has contributed to this failure -- excessive concentration on expansion of such basic industries as ferrous metallurgy, poor planning, shortages of raw materials and competent technicians, and the heavy burden imposed upon the engineering industries by reparations deliveries.

Some of the strengths and weaknesses of the East German industrial sector may be indicated by a review of the major industries and the supporting services of transportation and communications. Production

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of hard coal (bituminous and anthracite) is relatively small, fluctuating around 3 million metric tons in recent years. Gradual year-to-year declines in production are now planned through 1955 because of the expected exhaustion of deposits. Brown coal production has increased nearly every year since the war, surpassing the prewar level in 1952 with a production of nearly 180 million metric tons. Overfulfillment of plan goals for recent years suggested that even greater increases could be accomplished. Accordingly, the Five Year Plan figure was increased from 205 to 225 million tons. In view of the dismantled condition of the industry and shortages of labor, the recovery of East Germany's brown coal production probably should be regarded as one of the more successful efforts. Plans call for sizable amounts of investment in the industry and intensive research in connection with strip-mining techniques and the manufacture of briquettes and a suitable metallurgical coke from brown coal.

The picture presented by the iron and steel industry is somewhat different. Unlike the Ruhr area, which was the center of German ferrous metals production before the war, East Germany has generally inferior raw materials for making iron and steel. Despite these handicaps, some degree of success has been attained, partly as a result of a new low-shaft-type blast furnace suitable for the materials which are available. But the goals of the Five Year Plan are unlikely to be reached. Generally speaking, East German ore is low in iron content, and because of the many years of mining and the improbability of finding new deposits, the expansibility of the industry appears to be very limited.

Shortages of metallurgical coke are a particular problem in iron and steel production. Imports must be relied on to a significant extent, and there has been considerable difficulty at times in obtaining the planned imports. Pig iron output has not increased as planned, and some quantities are thus imported despite the transportation costs incurred. Steel ingot production reached the prewar figure in 1952; further increases will depend largely on the availability of iron ore and scrap. The scrap situation has been critical at times despite the surplus military equipment and war wreckage in the area. This is due in part to the demands of other Soviet Bloc countries (enforced by the USSR). Sizable gains in rolled steel production have been made during the past several years, although the country must rely to a large extent on imports for its supply of ferroalloying metals.

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In the nonferrous metals field, East Germany is most important in the production of copper, chiefly secondary copper utilizing scrap. The country accounted for nearly two-fifths of Bloc production of secondary copper in 1952. Significant quantities of lead and aluminum are also produced, but output of the latter is dependent on supplies of bauxite from Hungary.

East Germany is outstanding among the Satellites in its production of electric power -- another measure of its relatively advanced industrialization. Estimated power production increased by nearly two-thirds from 1948 to 1953, and the goal for 1955 is more than twice that of any other European Satellite. The increase in output during the past several years has, to a large extent, been accomplished through more intensive use of the existing plant rather than by new construction. The increase in production has not removed the necessity of enforcing priorities in consumption of power. About 60 percent of the power supply was devoted to industrial use in 1951 and 1952.

The country also possesses the best developed chemical industry among the Satellites -- one capable of producing a variety of chemicals and end products. East German production of calcium carbide amounted to over one-half of the Bloc total in 1951. The outputs of phenol, nitrogen fertilizers, and caustic soda ranged from about 25 to 40 percent of the Bloc total, with relatively less important but still noteworthy outputs of nitric acid, sulfuric acid, and soda ash. Closely related to this activity is the East German petroleum industry, nearly all of the output of which is in synthetic oils derived from coal. Aviation gasoline, jet fuel, motor gasoline, diesel fuel, and petrochemicals are among the chief products manufactured by the synthetic processes, whereas most lubricant stocks are obtained from natural crude oil imported from Austria. Output of major petroleum products approximately doubled from 1948 to 1952. About one-third of the production of East German liquid fuel plants in 1951 and 1952 was exported, chiefly to the USSR and Poland. Rubber also is produced by synthetic means in East Germany; in this respect, East Germany is the leader among the Satellites, although East German production was less than one-third as great as Soviet production in 1952.

Efforts to build up and diversify the engineering industries have enjoyed only moderate success. Industrial capabilities are still relatively limited in such basic industries as heavy automotive equipment and mining and metallurgical plant machinery. Reparations deliveries to the USSR through 1953 have had an appreciable effect

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in this connection. For example, reparations deliveries approached four-fifths of ship construction and rail equipment production in 1952. The goals for the engineering industries under the Five Year Plan are quite ambitious and will in themselves require large amounts of heavy electrical machinery, heavy construction equipment, mining and metallurgical machinery, and such specialties as antifriction bearings. Meeting these demands and planned requirements for intra-Bloc trade will require an expansion of output to some  $2\frac{1}{2}$  times the 1938 level, which is to say to the peak reached in 1944-45. It is not thought that this level can be achieved by 1955.

Measured by its trackage and the number of locomotives and cars in operation, the East German rail system is still well below its prewar level of activity. At the same time, the statistics for the past several years show a considerable increase in traffic, and there is little evidence to indicate that economic activity has been seriously handicapped by inadequate transportation facilities. The recent increases in rail traffic have been the result principally of a more intensive use of the available equipment, as is reflected in the substantially reduced turnaround time for freight cars. Since most of the output of rolling stock since the war has been taken by the Soviets as reparations, East Germany's inventory of locomotives and cars has changed little. Despite war destruction, dismantling, and undermaintenance, the present rail net in East Germany is a good basic system with suitably distributed trackage capable of handling a large volume of traffic.

East Germany also has an extensive system of inland waterways to supplement its rail system. The inland waterway network consists mainly of the Elbe system, the Oder (now less important than before the war), and the connecting waterways of the Berlin system. By 1949, these waterways were almost fully restored to their prewar condition, but in early 1953 the total carrying capacity of the fleet (including towed barges) was still about one-fifth less than the prewar figure. Traffic in tons and in ton-kilometers increased greatly during the first 5 years after the war. Building materials, coal, and lumber continue to account for the bulk of traffic in ton-kilometers.

The basic wireline network serving East German telephone and telegraph needs is moderately well developed and efficient, the facilities having either survived or recovered from the serious degree of war damage and dismantling. Special efforts have been made to build up these facilities since about 1950 or 1951, when

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reparations withdrawals were somewhat curtailed. A relatively large part of the area's communications facilities is used on a priority basis by the USSR or the East German government. Other special, government-controlled communications facilities include those of the railroad system, the police forces, the Soviet military forces, and the Ministry of the Interior (security forces). The East German government is also active in the radiobroadcasting field. Except for broadcasts directed at West Germany, most East German radiobroadcasting is designed for reception within the country. The jamming effort against broadcasts from the West has been considerably stepped up since 1952.

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I. Economic Organization, Policy, and Development.

A. Soviet Economic Organization and Policy.

1. Basic Policy.

Since the end of the war, Soviet economic policy with respect to East Germany has been conditioned by three basically conflicting aims: (a) to exploit East Germany as much as possible for the benefit of the Soviet economy, (b) to transform East Germany into a dependable Satellite with a planned economy along Soviet lines, and (c) to use East Germany and the promise of German unity as a means of extending Soviet influence in West Germany and of preventing the formation of an effective European Army. Until mid-1948 the first aim was dominant, and Soviet policy was one of ruthless exploitation through dismantling factories and levying heavy reparations from current production. Between 1948 and mid-1953, Soviet policy was to restore and enlarge the East German industrial base insofar as this was compatible with reduced, though still substantial, reparations deliveries, and to change the structure of the economy to conform to the Soviet model insofar as this was compatible with extending Soviet influence in West Germany. Beginning in the summer of 1952, rapid Sovietization seemed to have become the dominant policy, and the campaign for German unity seemed to have assumed a subsidiary role. On 10 June 1953 the East German Socialist Unity Party (Sozialistische Einheitspartei Deutschlands -- SED) [the East German Communist party] announced a number of measures, referred to as the "new course," that in effect

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revoked the policy of rapid Sovietization and also inaugurated a policy that promised to increase the real income of the East German people.\*

Manifestations of Soviet policy with respect to East Germany may be divided into three categories: (a) direct action, (b) delegation of authority to German organizations, and (c) more or less covert action through these organizations. It may be said that all actions of the East German government, the parties, and the SED-controlled mass organizations are manifestations of Soviet policy. Thus there is no real distinction between Soviet and East German policy. (For purposes of formal organization, the first two forms of Soviet action are discussed in this section, and the last, East German policy and organization, is discussed in the following section.)

## 2. Development of Economic and Political Institutions.

According to the Potsdam Agreement (Article III, par. 14), Germany was to be treated as a single economic unit, and to that end common policies were to be established with respect to all important aspects of economic life.  This condition has never obtained to any important degree. Decisions of the Allied Control Council were to be unanimous. <sup>2/</sup> As a result of this requirement and the fundamental disagreement of council members, no comprehensive program for Germany as a whole could be worked out.

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In organizing the administration of their zone the Soviet authorities carried out, after their fashion, decisions of the Control Council to the effect that German provincial (Laender) administrations be established and also that certain central German administrative departments be established; "particularly in the fields of finance, transport, communications, foreign trade, and industry." <sup>3/</sup> Such departments were to act under the direction of the Control Council; but the Council as an effective governing body soon became unimportant, and the Soviet forces pursued an independent policy in the Soviet Zone of occupation. <sup>4/</sup> The German Central Administrations established in the Soviet zone were under the direct supervision of the Soviet Military Administration (SMA), which was established on

\* See p. 32, below, for a discussion of the "new course."



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9 June 1945. 5/ The Laender Administrations were supervised by the branches of the SMA in each Land. 6/

In the early days of the Soviet occupation, lines of command within both the Soviet and the German organizations were not clear. A number of special missions concerned with the seizure of war booty and the organization of reparations were operating in East Germany and were controlled directly from Moscow rather than by the SMA. In addition, many orders from Moscow regarding occupation duties were sent directly to the provincial SMA's without going through the "normal" channels of command. 7/ Numerous conflicts took place between various Soviet ministries that laid claim to East German installations and supplies and the SMA, which had the responsibility for maintaining internal order by supporting the troops in Germany and by fulfilling plans for exports and reparations from current production.

The principal Soviet policies were, however, sufficiently clear. During the first 3 years of the occupation, the USSR tried to restore East German industrial production as rapidly as possible at a time when little attention was given to such development in West Germany. At the same time, however, the USSR was quickly removing as much war booty as possible, such as livestock, raw materials, automobiles, tractors, and other valuables, as well as reparations in the form of industrial equipment. 8/ The Russians met with considerable success in each of these seemingly contradictory endeavors.

One of the most important early policy measures carried out by the SMA was the land reform begun in September 1945. All estates containing over 100 hectares were confiscated without compensation and distributed to owners of small- and medium-size holdings and to expellees. 9/ The land reform probably was intended to lead to collectivization, for many of the newly created farms were too small to be operated economically. 10/ Other Soviet measures sought to maintain the German structure of controlled prices by continuing in force the German price and wage ceilings. 11/ The SMA also blocked bank accounts and cancelled interest-bearing state securities. 12/ The anti-inflationary effects of these measures were more than offset, however, by the reparations policy. From 1945 through mid-1948 the USSR took as reparations from current production about one-third of the total industrial production of East Germany. 13/ As a result, prices and wages could not be held at the 1944 level, and a severe inflation developed. 14/

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Planning of production during the early years of the occupation was carried on by detailed command of the Soviet representatives. In carrying out Soviet orders, conflicts arose between the German Central Administrations and the provincial German governments. The Soviet representatives resolved this conflict through increased centralization of administration, by transforming the Central Administrations into the German Economic Commission (Deutsche Wirtschafts Kommission -- DWK) in 1947 and by giving the DWK extensive powers in economic affairs in February 1948. 15/ The DWK was the forerunner of the German Democratic Republic, which was proclaimed provisionally on 6 October 1949. 16/ Four days later the SMA announced its own dissolution and the formation of the Soviet Control Commission (SCC) and the Group of Occupation Forces in Germany (GOFG). 17/ The SCC retained some of the economic functions of the SMA, and the GOFG assumed responsibility for the security of the Soviet occupation. 18/ These changes represented an increasing delegation of the functions of government to the Germans and also an increasing centralization of economic controls. In 1952 the SCC had a total personnel of about 3,000 as compared with 50,000 on the staff of the SMA in 1949. 19/ The 5 Land governments and East Berlin retained some control over local industry until the summer of 1952, when the Land governments were dissolved and replaced by 14 Bezirke (administrative districts), which were designated as local organs of the state executive, thus virtually completing the centralization of government. 20/

At the end of May 1953, it was announced that the SCC was dissolved and replaced by the Office of the High Commissioner for Germany, which was to limit its activities to representing the interests of the USSR in Germany and to overseeing the activities of the German Democratic Republic under the Potsdam Agreement. At the same time, the Chief of the Soviet Forces in Germany was relieved of responsibility for supervising the East German government. 21/

Even the function of supervising the East German government was formally relinquished by the USSR on 26 March 1954. At this time the USSR declared that the East German government had full sovereignty and that in the future the functions of the Soviet High Commissioner would be limited to safeguarding security and to maintaining relations with the High Commissioners of the US, Great Britain, and France with regard to all-German questions. 22/

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The constitution adopted by the People's Congress in May 1949 gave the German Democratic Republic a greater degree of control over its own affairs than was granted the West Germans a few days later. Soviet Bloc constitutional edifices, however, are notoriously at variance with political realities, and the constitution of East Germany is no exception to this rule. 23/ In theory, the formation of the SCC represented a change from direct Soviet control to mere supervision, but no known contractual agreement was drawn up defining this relationship. Thus the Soviet authorities have remained free to exercise an arbitrary veto over all acts of the East German government. 24/

Economic planning in East Germany reportedly is conducted very much as in the USSR. [redacted] the forms, nomenclature, and commodity code have been taken over unchanged from Soviet practice. 25/ [redacted] the East German State Planning Commission receives mandatory goals for the production of key products on a yearly basis from the economic planning departments of the SCC. In the past, Soviet authorities have kept a close check on the planning process at the ministry and planning commission levels and in some cases even at the plant level. It is not known whether or not the change from the SCC to the Office of the High Commissioner has resulted in any real lessening of Soviet controls over East German planning and production. Generally speaking, orders for reparations goods, for exports to the USSR, and for SAG Wismut\* have received top priority in the procurement of raw materials and labor in East Germany. 26/ In the fall of 1952, orders for the East German armed forces were given top place on the priority schedule. 27/ Information on the priority schedule since the inauguration of the "new course" is unavailable at present.

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### 3. Reparations.

From the end of the war until mid-1948 the procurement of reparations in one form or another dominated Soviet economic policy in East Germany, and throughout the entire postwar period reparations policy has been the most important single factor influencing East German economic development. The following brief account of Soviet reparations policy and practice is necessary in order to give perspective to the recent Soviet announcement that reparations are to cease beginning on 1 January 1954.

\* Soviet enterprise in East Germany engaged in mining uranium ore.

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The Yalta and Potsdam Agreements asserted the principle that Germany should compensate to the greatest extent possible for the damage caused to the Allied nations. 28/ At Yalta the USSR demanded US \$10 billion worth of capital equipment and goods from current production at 1938 prices as reparations from Germany. The Allies did not reach final agreement on the subject, but the USSR has continued to use the figure of US \$10 billion as the basis for its reparations claims. 29/ The Potsdam Agreement (of August 1945) provided that part of the reparations claims of the USSR should be met by removal of capital equipment and current production from the zone of Germany occupied by the USSR and by seizure of appropriate German external assets. 30/ The Potsdam Agreement provided further that payment of reparations should leave enough resources to enable the German people to subsist without external assistance. 31/

As part of the Protocol of 23 August 1953 the Russians announced that reparations from Germany would cease on 1 January 1954. 32/ The Protocol stated further that at the end of 1953 the unpaid balance which was to be canceled would amount to US \$2,537 million. Since in May 1950 the Soviet News Agency announced that total Soviet reparations demands had been reduced from US \$10 billion in 1938 prices to US \$6,829 million, 33/ it appears that the USSR by its own calculations will have received from Germany US \$4,292 million worth of reparations in 1938 prices by the end of 1953. West German authorities agree that US \$4.3 billion in 1938 prices is a considerable understatement of total Soviet takings from East Germany, excluding occupation costs. The USSR does not recognize as reparations several forms of exploitation of the German economy such as war booty, the expenditure of captured Reichsmark (RM) and printed occupation currency, transportation and packing of reparations goods, and profits and rents paid by the SAG's.\* The West Germans also believe that additional payments were made to the SAG's and the SMA and that these payments were charged neither to reparations nor to occupation costs.

The West German Social Democratic Party (Sozialdemokratische Partei Deutschlands -- SPD) gives an estimate of total Soviet takings for 1945-52 as RM/DME\*\* 78.6 billion in current prices, including RM/DME 7.6 billion for occupation costs. 34/ The SPD converts this

\* Sowjetische (later Staatliche) Aktiengesellschaften -- Soviet (later State) Corporations which the USSR required ostensibly as reparations. See Section B, 4, below.

\*\* Reichsmark/Deutsche Mark (East).

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at the rate of RM/DME 2.5 equals US \$1 to arrive at US \$31.4 billion, which probably should be considered a maximum estimate of total Soviet takings from the German economy. The SPD estimate of reparations from current production in 1950 and 1951 is over 2½ times as high as the estimate by State, HICOG, Berlin, for those years. State estimated total Soviet takings for 1950, including occupation costs, to have been about DME 6 billion; and for 1951, DME 4 to 4.5 billion. 35/ The SPD estimates Soviet takings for 1951, excluding occupation costs, at DME 5,041 million. 36/ Addition of DME 1,950 million for occupation costs (the figure used by State and exactly the same as the figure given in the Protocol of 23 August 1953 for 1953 occupation costs) gives an SPD estimate of total takings for 1951 of DME 6,991 million. Since the original data underlying both these estimates are not available, it is not possible to evaluate them, and the figures are given only to indicate the approximate magnitude of Soviet takings.

War damage and dismantling reportedly reduced the capacity of East German industry to about 50 percent of 1936 capacity. 37/ About 30 percent of the total reduction was due to war damage, and about 70 percent to dismantling.\* 38/ In view of the subsequent rapid recovery of production, these estimates of reduced capacity appear to be based on inability of plants to operate because of loss of essential machinery, rather than on complete loss of fixed capital.

A question of considerably greater interest than the value of total reparations is the current value of Soviet takings and the amount of current income from East Germany to be given up by the USSR under the terms of the Protocol of 23 August 1953. The concessions in the Protocol affecting current Soviet income from East Germany are the return of the 33 SAG's, the cessation of reparations, the reduction of occupation costs, and the cancellation of the debt of DME 430 million still owing on the 66 SAG's returned in May 1952. 39/

The profits of the SAG's were estimated at DME 600 million to DME 700 million yearly in 1950 and 1951. 40/ Since the return of the 66 SAG's in 1952 reduced the SAG's share of East German

\* SPD estimates the value of war booty and dismantled factories at about RM 5 billion for each category.

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industrial production from about 25 to 27 percent 41/ to 15 to 18 percent, it is assumed that profits were correspondingly reduced -- that is, to about DME 400 million, disregarding any change in profits from 1951 to 1952. The Protocol announced that occupation costs in 1954 will be DME 350 million less than in 1953. 42/ Nothing is known about the rate at which the debt on the 66 SAG's was being paid off, but for the purpose of estimating the annual Soviet takings, a rate of DME 215 million a year in 1954 and 1955 is arbitrarily assumed.\*

Greatest difficulty is found in estimating reparations from current production, because more information is available and not all of it is consistent. Estimates of reparations from current production range from a high figure of DME 2.4 billion for 1952 reparations given by the SPD 44/ to a low of about DME 1 billion suggested by East German budget data published by State, HICOG, Berlin. 45/ An intermediate figure of DME 1.4 billion can be derived by applying a dollar-mark conversion ratio of US \$1 equals 2.5 marks (the prewar rate, which the Russians are said to use) and a price inflator (1.75) to the 1938 dollar figures published by the Soviet sources. By adding to the reparations from current production the estimated SAG profits of DME 400 million, DME 215 million for debt repayment, and DME 350 million for the saving on occupation costs, one arrives at estimates ranging from DME 2 billion to DME 3.4 billion as the annual sum which East Germany will be relieved of paying the USSR during the next 2 years. These sums amount to 4.5 and 7.6 percent, respectively, of an estimated East German GNP of DME 44 billion in 1953.

#### 4. Soviet Corporations.

In December 1945 the SMA ordered some 200 of the largest and most important factories transferred to Soviet ownership and management. 46/ It has been alleged that these plants were originally scheduled for dismantling as reparations but were saved, in the words of Marshal Sokolovskiy, "in order to provide employment and part of the output for the German economy." 47/ These Soviet corporations (SAG's) were administered by USIG (Upravleniye Sovetskogo Imushtchestva v Germanii -- Administration of Soviet Property in Germany). 48/

\* This is a minimum estimate. The value of the SAG's returned in 1952 has been estimated at DME 1.6 billion, which would have meant a repayment rate of DME 600 million a year in 1952 and 1953. 43/



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The SAG's were registered in Germany as public companies of limited liability owned by the USSR. 49/ The SAG's paid the USSR a yearly rent for the property and installations and also their profits, if any. 50/ It is reported that they were subsidized from the East German budget in the event that losses were incurred. 51/ Investment in the SAG's also is believed to come out of the East German budget, but it is assumed that these sums are credited to the Soviet reparations account. 52/ Most of the production of the SAG's, especially in recent years, was sent to the USSR as reparations, exports, or profits in kind. 53/ Soviet authorities were reported to have returned 74 SAG's to German ownership (as nationalized firms) in 1947, and they returned 23 in May 1950 and 66 more in May 1952. 54/ According to the Soviet-East German Protocol of 23 August 1953, the remaining 33 SAG's (not including SAG Wismut) were to be returned, without compensation, to German ownership on 1 January 1954.\* 55/ The SAG's returned in 1950 and 1952 and possibly those returned in 1947 had to be paid for by the Germans. 56/ The Protocol of 23 August 1953 provided that the remaining East German debt of DME 430 million for the 66 SAG's returned in 1952 would be cancelled. 57/

From 1945 until the end of 1953, the SAG's formed a powerful economic empire within East Germany. The value of the production of the last 33 SAG's to be returned is estimated to be from 15 to 18 percent of the total value of industrial production in East Germany. 58/ The SAG's were included in the Five Year Plan, but their production plans and material requirements have had to be accepted in toto by the East German planning authorities. 59/

By the spring of 1954 considerable information was available indicating that the return of the SAG's was not without financial obligation on the part of the East German government. It is reported that East Germany owes the USSR DME 1.4 billion for long-term credits granted the SAG's by the Soviet-owned Garantie- und Kreditbank and for the value of inventories on hand at the time of the transfer. 60/ There is, moreover, a backlog of reparations orders. The Office for Reparations has been replaced by an Office for Exports to the USSR, but details of its functions are not available. It has also been reported that the 33 former SAG's

\* These figures leave four SAG's unaccounted for, but they probably were absorbed by other SAG's.

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will not be subordinated directly to the appropriate East German ministries but will be controlled instead by new state secretariats within the ministries. 61/ It therefore appears that the USSR has not altogether relinquished direct controls over an important segment of East German industry.

The Soviet trade and transport companies are an important adjunct of Soviet economic activities in East Germany. They are supervised by the Soviet Trade Delegation in East Germany, which is a subdivision of the Soviet Ministry of Foreign Trade. 62/ There have been as many as 16 Soviet trade and transport companies operating in East Germany, each ostensibly specializing in a group of related products.\* 63/ Their main task has been the organization of the export of reparations and SAG goods, but they also have reportedly procured scarce goods for the USSR from Western countries and engaged in all sorts of black-market activities. 64/

\* The Soviet trading and transport companies believed to be operating in East Germany at the end of 1953 were as follows:

Exportlen (flax, yarn, fibers, jute, cotton, wool, and products made from these materials)

Exportles (such as wood, paper and paper products, and cellulose)

Mashinoimport (equipment for mining, metallurgy, power plants, and transport industries)

Promexport (coal and chemicals)

Promsyr'yeimport (ferrous and nonferrous metals and scrap)

Sovexportfilm (Soviet movie film and exchange agency)

Soyuzpushnina (furs, pelts, live animals, and fur products)

Tekhnexport (machines for automotive industry, agricultural machinery, tractors, electrical goods, and metal-processing machines)

Tekhnopromimport (equipment for the chemical, food-processing, paper, rubber, textile-printing, and leather industries; leather goods; telephone and telegraph equipment; control and precision machines; and laboratory, X-ray, and optical equipment)

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S-E-C-R-E-T5. Uranium Mining.

SAG Wismut was founded by the Soviet authorities in 1945 or 1946 for the purpose of mining uranium ore in East Germany. 65/ It is ultimately supervised by the Council of Ministers of the USSR. About 300 ore-bearing shafts in the neighborhood of Aue in Saxony and Saalfeld in Thuringia are being worked. 66/ Including subsidiaries that supply the mines with equipment, SAG Wismut employed about 225,000 people in the fall of 1951. 67/ Working conditions have improved during the course of time from catastrophic to miserable. 68/ Wages are high, but other pressures must be used to force people to work in the mines. 69/ The West German Ministry for All-German Questions (Bundesministerium fuer gesamtdeutsche Fragen) estimates the yearly cost of SAG Wismut in wages and equipment at DME 2.5 billion. 70/ This estimate is based on average wage rates and employment and assumes wages to be about half of total costs. A part of the profits of the other SAG's and the Soviet trading companies is reportedly used to help defray the cost of SAG Wismut. 71/ Moreover, payments for the support of SAG Wismut probably are made from the East German budget. 72/ Payments of DME 400 million and DME 600 million in 1950 and 1951, respectively, to the Soviet-owned Garantie- und Kreditbank are believed to be for this purpose. 73/ The estimated profit of the SAG's for those years is DME 600 million to DME 700 million. 74/ The sum of these two items amounts to only one half of the yearly cost of operation of SAG Wismut as estimated by the West German authorities. Other sources of financing are not known but might be the funds taken from East German banks after the capitulation. Withdrawals from the account of the Soviet-owned Guarantee and Credit Bank with the Deutsche Notenbank were about DME 1.1 billion in 1950. It is understood that this account was almost exhausted by the end of 1950. 75/ In his address before the People's Chamber (Volkskammer) on 25 August 1953, Minister President Otto Grotewohl stated that a joint Soviet-German Wismut corporation was to be formed on a basis of parity. 76/ It is possible that, the Russians having exhausted hoarded supplies of marks and given up the SAG's as a source of funds, a joint company is being formed as an excuse for continuing to require the East German government to bear a large share of the cost of SAG Wismut.

S-E-C-R-E-TB. East German Economic Organization and Policy.1. Governmental Organization.

The East German central government came into existence in a de facto sense on 13 February 1948, when the DWK was expanded and given extensive powers by order of the chief of the SCC, Marshal Sokolovskiy. <sup>78/</sup> The transfer of power from the provincial governments to the DWK was completed by a transfer of property, in which the largest and most important nationalized firms, whose combined capacity amounted to two-thirds of the capacity of nationalized industry under German administration, passed from the control of the provincial governments to the DWK. <sup>79/</sup> Since the Soviet-appointed membership of the DWK contained a large proportion of important members of the SED, the centralization of German governmental organizations increased the influence of the SED. The nature of the relationship between the SED and the DWK was made clear in July 1948 by the handling of the Two Year Plan. This plan was first presented as the plan of the Party at the Annual Congress of the SED, and it was subsequently adopted by the DWK without substantial change. <sup>80/</sup> The SED was at that time, and still is, the de facto German government of East Germany, but its operations are monitored and controlled by the Soviet authorities. The provisional German government proclaimed in October 1949 was confirmed by the People's Chamber (Volkskammer), elected from a single list of candidates, on 15 October 1950. <sup>81/</sup>

The economic administration of East Germany is concentrated in the Council of Ministers, which consists of a minister president, his 6 deputies, 18 functional ministers, a state secretary for the coordination of finance, the chairman of the State Planning Commission, 7 state secretaries with their own fields of responsibility, and a control department consisting of 12 major economic groups. <sup>82/</sup> The list of ministries includes those customarily found in a European government (for example, foreign affairs, interior, and finance) and other ministries whose functions are directly related to the management of the nationalized industry (for example, the Ministry of Heavy Industry). The ministries concerned with the administration of nationalized industry have been reorganized almost yearly. The latest reorganization, announced on 25 March 1954, is that shown in the accompanying chart.\*

\* Following p. 20.

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Three important reorganizations of the East German government took place in 1952. The first occurred under the "Law on the Government of the German Democratic Republic" of 23 May 1952, which incorporated the following essential features 83/:

a. It increased the number of deputy prime ministers from 5 to 6 and added a minister without portfolio to be in charge of coordination and control.

b. It established five coordination and control bodies within the Office of the Minister President.

c. It authorized the government to adapt its structure to the requirements of the economic plan by acting on its own decision.

d. It extended the right of the Council of Ministers to establish autonomous state secretaries assigned to special tasks.

The second reorganization established a Presidium within the Council of Ministers on 17 July 1952. 84/ The Presidium is the top executive body in the East German government and consisted originally of 7 voting and 7 nonvoting members. The law of 23 July 1952 on the "Further Democratization of the Structure and Functioning of the State Organs in the Laender of the German Democratic Republic" abolished the last vestige of federalism in East Germany. This third reorganization provided for the following 85/:

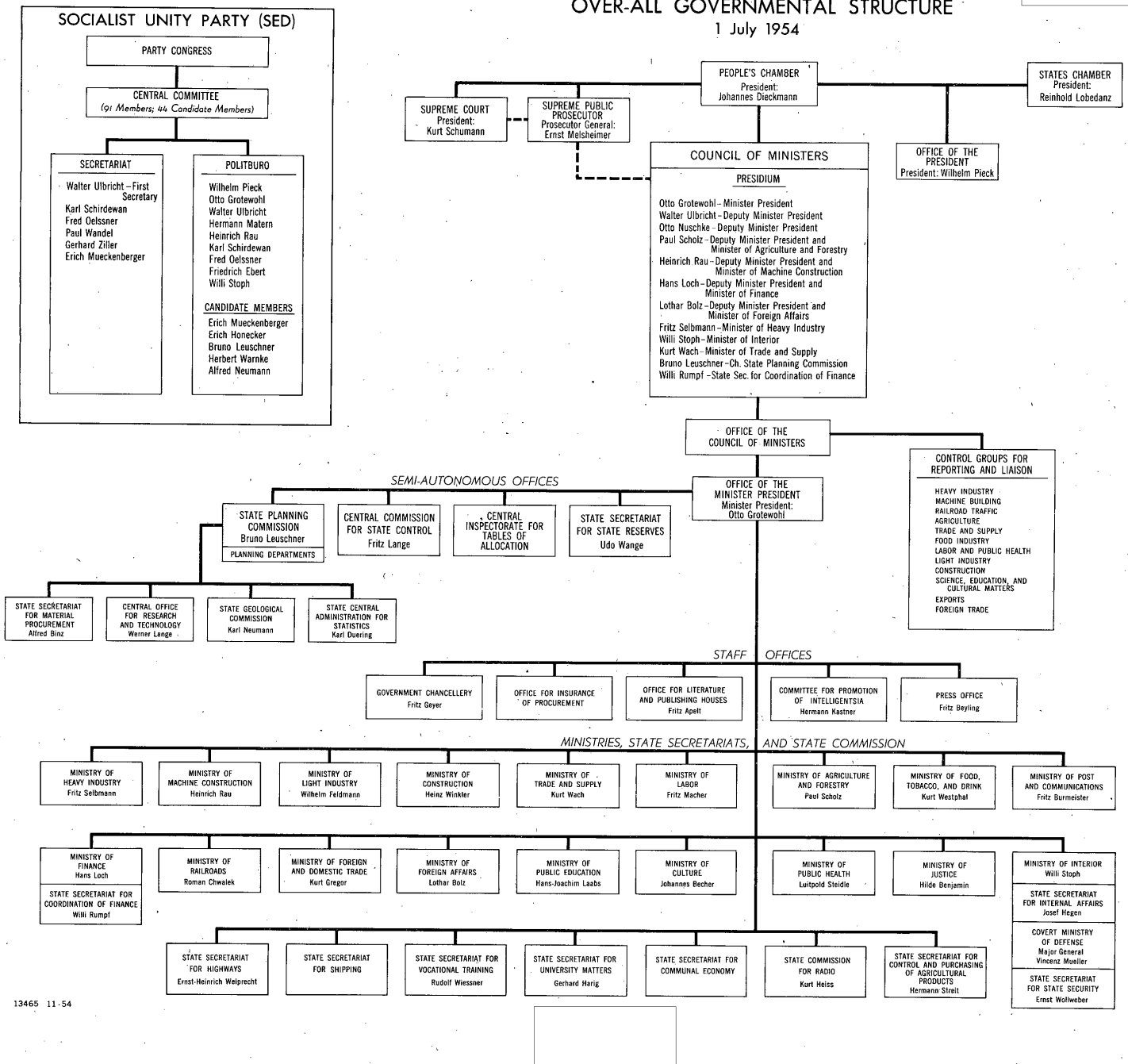
a. The replacement of the 5 land governments by 14 Bezirke (administrative districts).

b. An increase in the number of Kreise (counties) from 143 to 217.

c. The transfer of the functions of the Land governments to the central government and the Bezirk councils.

The Office of the Council of Ministers was established for the purpose of strengthening "operative management in implementing the decisions of the Council and of the Presidium." 86/ Although presided over by the Minister President, it is regarded as a separate administrative body attached to the Council. The membership of the Office of the Council of Ministers includes Minister

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President Otto Grotewohl, Deputy Minister President Walter Ulbricht, and Ministers Leuschner, Stoph, Rau, Selbmann, and Wach. The work of this Council is conducted largely through the Control Department created to support the Presidium. The decree setting up the Control Department assigned to it the following duties 87/:

- a. To check on the implementation of the decrees of the Council of Ministers.
- b. To assure a concrete over-all view of status of fulfillment.
- c. To discover at an early date the flaws in execution of decrees.
- d. To present proposals for the elimination of flaws in execution.
- e. To examine important proposed decrees before submission to the Council of Ministers and Presidium for accuracy and practicality.

2. Fourth Party Congress of the SED.

Aside from the purely political aspects of the Fourth SED Congress, which was held from 30 March to 6 April 1954, there were a number of economic implications of significance which may reveal the trend of future developments. The report on the new Party statutes indicated that the reorganized structure now parallels very closely that of the USSR. 88/ The identification of the SED with the state was established by asserting the right of control of the Party over activities of management in the state-controlled sectors of industry, trade, and agriculture. 89/ Apparently, the Communist leadership in the SED believe themselves to be strong enough to dominate the SED and through it the state, without the assistance of the former Socialists. The dual chairmanship of the Central Committee, the last symbolic gesture toward the ex-Socialists, was abolished. The identification of the party with the state was frankly admitted, and its subservience to the Communist Party of the USSR explicitly acknowledged.

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The future goals and objectives as revealed by the Congress include 90/ (a) the extinction of private enterprise; (b) the collectivization of agriculture; (c) the further expansion of heavy industry; (d) the disappearance of the non-SED parties; and (e) the elimination of former Socialists from the party. The timetable for the realization of these objectives was not revealed. Apparently, expediency will be a factor in the fulfillment of the program.

3. Extent of State Control of the Economy.

The German-owned nationalized enterprises (Volkseigene Betriebe -- VEB's) derived initially from the expropriation of firms owned by the government and leading Nazis. On 30 June 1946 the people of Saxony voted "yes" to a referendum calling for the expropriation and socialization of factories owned by "nationalist monopoly capital and Hitlerite fascists," and this decision was enforced throughout East Germany without much more ado. 91/ Although the Soviet-owned plants and the German-owned nationalized enterprises together comprised not more than 10 percent of the number of plants in East Germany, it is estimated that they accounted for about 75 percent of the total value of industrial production in 1950. 92/ According to Ulbricht, this share had risen to 80 percent by the end of 1952. 93/ The goal of the Five Year Plan is that 81.2 percent of total production is to be produced by nationalized and comparable (SAG) firms by 1955. 94/ The Five Year Plan implies that this increase in the share of nationalized industry in industrial production is to come about through a relatively greater increase in the production of the nationalized sector. The Plan provides that the value of the production of the nationalized firms\* shall increase during the 5 years by 124.8 percent, while the production of private industry is to increase by 66.7 percent and the production of handicrafts by 66.5 percent. 95/

Heavy industry is entirely nationalized in East Germany. The 20 percent of industrial production still in private hands is restricted almost entirely to small-scale consumer goods industries, such as flour mills, clothing firms, woodworking establishments, and handicrafts. 96/ There also are several thousand small machine shops. 97/ Handicrafts undoubtedly comprise the largest part of private industry. In 1949 there were 304,000 handicraft shops

\* Presumably not including SAG's.



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employing about 980,000 people in East Germany. 98/ These establishments are required to belong to the Handicraft Chambers in their localities and are encouraged, mainly by tax privileges and larger supplies of raw materials, to form handicraft cooperatives. 99/ Handicrafts are regulated by the "Law for the Advancement of Handicrafts" of 16 March 1951. 100/ This law provides, among other things, that in order to secure materials, a handicraft establishment must conclude contracts with the State Contract Office (Vertragskontor), or with a nationalized firm, thus tying the handicraft firms to the directly planned sector. Prices and wages in the handicraft trades are fixed by law. The consequence is that, though private industry still exists, very little scope is left for private initiative.

German telephone and telegraph communications and rail transport were nationalized before the war. In addition, barge and truck transport are now nationalized. Wholesale trade in East Germany today is almost completely nationalized. German Wholesale Trade Agencies (Deutsche Handelszentrale -- DHZ's) for each principal industry are subordinate to the ministry to which their industry belongs and operate as wholesalers for the nationalized industry. 101/ State Contract Offices operate as wholesalers on the local level for private industry and the cooperatives. 102/ The Associations of People's-Owned Procurement and Purchasing Enterprises (Vereinigungen Volkseigener Erfassungs- und Aufkaufbetriebe -- VVEAB's) function both as wholesalers of agricultural products and purchasing agents for private, cooperative, and nationalized farms. 103/ Next to agriculture, retail trade and the professions have the largest proportions of private enterprise of any sector of the economy. Retail trade is carried on by the state-owned shops (Handelsorganisationen -- HO's), the consumers' cooperatives, and private firms. 104/ In 1950, 26.6 percent of the total retail trade was handled by the HO's, 16.8 percent by the cooperatives, and 56.5 percent by private firms. By 1953 the HO's share of retail trade had increased to 39.0 percent, the cooperatives to 26.8 percent and the share of private firms had declined to 31.0 percent. Other forms of socialized trade, such as the state shops in industry made up the remaining 3.2 percent. This is a greater degree of socialization of retail trade than originally called for in the Five Year Plan. 105/

The banking system of East Germany has been entirely nationalized since 1946 and completely centralized since the end of 1950. The system consists of the German Bank of Issue (Deutsche Notenbank), with 14 branches and about 300 subsidiaries and

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depositories; the German Investment Bank, with 15 branches and 23 subsidiaries; the German Farmers' Bank, with 14 branches and 3,150 State loan offices run by the Farmers' Trade Cooperatives; the 125 Savings Banks, with 2,300 depositories; and the Guarantee and Credit Bank, which is Soviet-owned and handles all of the banking of the Soviet High Commission, the GOFG, the SAG, and the Soviet trading and transport companies. 106/

Agriculture is the least socialized sector of the economy of East Germany. Until July 1952, collectivization of agriculture was approached only indirectly in East Germany. The land reform of 1945, in which estates over 100 hectares were broken up and distributed to owners of small- and medium-size holdings and to expellees, seemed to be a step in the opposite direction. It is probable that many of the new farms were deliberately made too small to be economically operated and that the USSR intended to achieve collectivization in East Germany gradually through the voluntary cooperation of the farmers with Machine Tractor Stations (MTS's)\* and the Farmers' Mutual Aid Association (Vereinigung der gegenseitigen Bauernhilfe -- VdgB). The MTS's, which were founded in 1949, took over the tractors and equipment acquired from farms expropriated under the land reform. These stations do not lend their machines but send their operators and equipment out to the farms to plow and harvest. Fees per hectare of work performed increase with the size of the farm, a measure designed to divide the peasantry into opposing factions with a view toward voluntary collectivization of the smaller farmers and eventual elimination of the larger units. 107/ The VdgB, which during the early years of the occupation was the collecting agency for agricultural products, was amalgamated with the village cooperatives (Bauerliche Handelsgenossenschaften -- BHG's) in 1950, and the collection function was transferred to the VVEAB's. 108/ The VdgB is now primarily a political organization, but it also handles some purchasing of supplies for the farmers and agricultural loans. The VVEAB's, in conjunction with the Ministry of Agriculture and Forestry, plan and set the quotas for, and prices of, farm products to be delivered each year. Both prices and quotas have tended to discriminate against large farmers. 109/ These organizational changes in agriculture parallel changes in other Satellites in Europe, but the Sovietization of agriculture is less advanced in East Germany than in the other Satellites.

\* Maschinen- und Traktorenstationen (Russian Mashinotraktoryye Stantsii), formerly MAS's (Maschinen-Ausleihstationen -- Machine Lending Stations).

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State farms (Volkseigene Gueter -- VEG's) have existed in East Germany since 1949. There are now about 513 VEG's with an estimated agricultural area of 212,000 hectares, or approximately 4 percent of the total arable land. 110/ The VEG's are supposed to function as experimental and model farms, and as sources of seed and breeding stock.

Collectivization of agriculture as a goal of agricultural policy was admitted by the SED for the first time at the Second Party Conference in July 1952, when a program for the formation of agricultural cooperatives was announced. 111/ Although the formation of the cooperatives was ostensibly voluntary, farmers were subjected to a variety of pressures to get them to join. By September 1953 there were about 4,800 agricultural production cooperatives (Landwirtschaftliche Produktionsgenossenschaften -- LFG's) farming 15 percent of the total arable land. 112/

#### 4. Economic Planning.

The East German State Planning Commission receives yearly from the Economic Planning Department of the SCC mandatory goals for the production of key products. 113/ How detailed these goals are is not definitely known, but it is likely that they comprise the 90-odd basic materials and commodity groups shown in the "Key Positions of the People's Economic Plan." 114/ The key position figures received from the SCC are expanded by the State Planning Commission to include additional products and product groups, and it is this list of production targets, called "control figures" (Kontrollziffern), to which the remainder of production and all resource allocation must adjust. Good authority states that there were 300 such figures in the 1952 planning. 115/ These control figures for the yearly plans are distributed by the State Planning Commission to the appropriate ministries and state secretariats, which expand them further and distribute the production targets to the nationalized firms, directly in some cases and in others through the associations of nationalized firms or the Bezirk administration. The nationalized firms then work out requirements plans incorporating the material, labor, investment, and subsidies necessary to meet the Plan goals expressed in the control figures. According to the West German Ministry for All-German Questions, these control figures can in no way be lowered by the ministries, state secretariats, or nationalized firms but are frequently raised by them. The requirements plans follow the same route back to the State Planning Commission and are adjusted and aggregated at each higher administrative level. 116/

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The State Planning Commission then "balances" the material requirements with available resources and, in consultation with the Ministry of Finance, draws up the plans for production, investment, finance, export, import, and material and labor supply. Additions to state reserves may be incorporated into planned production to meet emergency production requirements. The individual plans are reported to be synchronized exactly in quantitative terms only with respect to the key positions laid down by the Soviet authorities. For the other products, only a rather general or aggregative balancing takes place. 117/

A good many reports were received near the end of 1951 about unrealistic goals laid on from above and about insufficient knowledge on the part of the State Planning Commission of actual capacities and lead times. 118/ Thereafter, occasional references were made to planning "from below to above instead of from above to below." 119/ The first of a series of articles in Die Wirtschaft, entitled "Balancing in Economic Planning," stresses the point that since all parts of the economy are related, all parts of the Plan must be worked out simultaneously. 120/ This view is borne out by the procedures for preparation of the Economic Plan for 1953, passed by the East German Cabinet on 30 May 1952. 121/ The ministries, state secretariats, and Land governments were directed to instruct the nationalized firms to begin preparatory work immediately for the 1953 Plan, to establish contracts immediately with each other, and to conclude temporary contracts for 1953 in order to guarantee the sale of the items to be produced in 1953. 122/ The Ministry of Foreign and Domestic Trade\* was likewise directed to begin preparations for 1953 trade agreements. All of this was to take place before the confirmation of the 1953 control figures by the Cabinet. It appears that the nationalized firms are directed to start planning on the basis of the production of the previous year and of the goals of the Five Year Plan.

The place of private enterprise in the system is not clear. In those cases where the products of a private firm are consumed by a nationalized firm, the nationalized firm contracts for the production of the private firm and receives an allocation of raw materials for transmittal to the private firm. Otherwise, private firms receive their allocations of raw material (if any)

\* Ministerium fuer Aussenhandel und Innerdeutschen Handel. Innerdeutschen here means "interzonal." In translating Innerdeutschen as "Domestic," the State Department convention is followed.

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from the State Contract Offices under the Bezirk and Kreis administrations. 123/ Generally, the Bezirk administrations receive their control figures only in value terms. Occasionally, when there is a private firm in the Bezirk whose production is particularly important, control figures are received in quantitative terms. 124/

The nationalized firms receive their production quotas in quantitative and value terms or only in value terms, depending upon the nature and relative importance of the product. Production is planned in terms of Plan prices, or Messwerten. Messwerten, literally translated, means "measuring values." They are based on the prices used in the 1950 Plan, which were, for the most part, current prices. 125/ The Messwerten were fixed for the duration of the Five Year Plan and were intended to take the place of a price index -- that is, to permit the measurement of the change in production in constant prices. The Messwerten apply to the gross production of a factory as defined by the products contained in the General Commodity Code (Allgemeine Warenverzeichnis), regardless of whether or not they are consumed entirely or in part within the factory. 126/

In some aspects of planning, such as the planning of sales, current prices are used. These prices take the usual form of factory, wholesale, and retail, with the latter divided into HO prices and rationed prices. Current prices are fixed by law. They derive originally from the 1944 ceiling prices, which were continued in effect by order of the chief of the SMA, 127/ but they have been changed piecemeal over the years.

The East German planning authorities intend eventually to recalculate all prices on the basis of the Marxian labor theory of value. 128/ They do not seem to have solved in theory the problem of expressing in prices relative scarcity deriving from demand. In practice, the problem is partially solved on an ad hoc basis by manipulating the turnover tax rates on retail sales and by the use of a priorities system for allocating raw materials and components within the nationalized economy.

Although the "balancing" of planned production and material requirements by the State Planning Commission theoretically equates supply and demand, it has not balanced supply and demand in practice. Goods have been produced according to Plan which could not be sold at fixed prices, while at the same time the raw materials used in their production have been in short supply. The import plans

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seem never to be fulfilled on time, and raw material shortages are chronic. In order to assist the economy in balancing supply and demand as planned by the State Planning Commission the "Law on the Introduction of the General Contract System for Goods Deliveries in the Nationalized and Comparable Industry" was passed in December 1951. 129/ This law provides that within a month after the distribution of Plan goals to the firms, they must complete contracts with other firms and with import and export agencies for both their material requirements and the sale of their products. Financial penalties are imposed on the firm for nonfulfillment of these contracts. The General Contracts Court has been set up to handle disputes arising from the operation of this law. The result of these cases has usually been that no penalty has been imposed, because the nonfulfillment can be traced back to an event for which nobody in East Germany can be blamed, often to the nonfulfillment of the import plan. The law provides, however, an important incentive to the factory manager to fulfill his production plan, since by the "Law on the Reorganization of the People's Owned Industry" of 22 December 1950, the individual firm manager is responsible for operating the firm as economically as possible. 130/ Before the passage of this law, profits and losses were equalized among the firms belonging to an association of nationalized firms (Vereinigung Volkseigener Betriebe -- VVB's).

Financial planning in East Germany serves the purpose of control rather than direction, the latter being determined by the over-all economic plan. The nationalized firms receive their circulating capital from the Deutsche Notenbank and pay it back according to plan. Profits, subsidies, and the reduction of operating costs are planned. Until 1953, amortization funds were paid into the state treasury and redistributed by the German Investment Bank, not as loans, but as grants, to industry for investment purposes. Beginning in 1953, nationalized firms must use their amortization funds and may use a part of their profits for planned investment. 131/ Additional funds for investment are available through the German Investment Bank. Of course, no investment may be undertaken that is not planned, and the banking system is directed to see that funds are spent only as planned.

The currency plan is an important aspect of East German financial controls. Under the "Law for Control of Payments," dated 21 April 1950, 132/ particularly under its second implementation of 28 June 1950, a sharp distinction is made between two different

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groups of money users. The first group comprises practically all private persons, small tradesmen with a yearly turnover of less than DME 20,000, landlords with less than DME 250 monthly income, and members of the professions with less than three employees. The second group comprises the bulk of the economy -- that is, all other persons, enterprises, and organizations. The use of cash is restricted mainly to the first group. Private persons are subject to no limitations as to its internal use. Since bank accounts of private persons and of small private industry are kept exclusively with the savings banks or cooperative banks, it is easy to handle them differently from the accounts of the rest of the economy. 133/

The enterprises and organizations are permitted to accept cash, but they may not spend such receipts as cash except in transactions amounting to no more than DME 50. Otherwise, they are under obligation to pay all cash receipts immediately into accounts with credit institutions. 134/ For payment of wages, they receive the required cash from the credit institutions, subject to submission of their payrolls. Since the Deutsche Notenbank knows the wage bill, retail turnover, and savings deposited in banks for any given period, the Notenbank can theoretically calculate the amount of cash being hoarded and going into illegal trade.

The Deutsche Notenbank has a phobia about inflating the currency and apparently confuses the amount of hand-to-hand money with the total supply of money. It maintained the amount of currency in circulation almost constant at about DME 3.5 billion from the end of 1949 to mid-1953, 135/ despite rising wages and an increase in retail turnover. As a result of this procedure, a serious shortage of hand-to-hand currency had developed in East Germany by the fall of 1953. 136/ Since then the Notenbank has let currency in circulation rise. By 10 June 1954 it had reached 4.2 billion. 137/ It is uncertain whether the shortage was a result of a miscalculation on the part of the Notenbank as to the amount of currency needed or whether sizable sums are being hoarded. Toward the end of 1951 the Notenbank calculated that about DME 2,100 million in circulation could not be accounted for. 138/ This amounted to roughly DME 300 per capita of all gainfully employed persons. It is highly unlikely that this sum was evenly distributed among the population, because the scale of living has been so low that many such cash hoards would have become effective demand for unrationed goods in the HO's. State, HICOG, Berlin, concludes that "the SED, the semiofficial trading organization, the occupation power, economic enterprises (particularly

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private industry), trade and agriculture, and black marketeers have large cash holdings and that there are large-scale transactions in the economy outside the plan." 139/ Because currency has become scarce, the Notenbank may have concluded that cash hoards are larger now than in 1951. The real or fancied existence of this unaccounted-for cash may be one reason for the frequent rumors of an impending currency reform in East Germany. Such rumors, however, cannot always be accepted as reliable indicators, because currency reform rumors are the stock in trade of black marketeers of currency.

If the East German authorities contemplated a currency reform, it is likely that it was to assist in the program for "building socialism."\* A currency reform would not be consistent with the present policy of increasing the real income of the population. A reform that did not touch savings in banks might, however, be politically feasible.

#### 5. Economic Policy.

##### a. "Building Socialism."

The organization of the economy described above was virtually complete by the end of 1950, with the exception of the agricultural cooperatives. East German economic policy from 1950 until mid-1952 concentrated on fulfilling the goals of the Five Year Plan and improving the functioning of the existing organization. Further socialization was played down and the theme of German unity emphasized. 140/

In July 1952 the Second Party Conference of the SED signaled an abrupt shift in policy. The conference announced that the time had arrived for East Germany to proceed with "building socialism." According to the decisions of the conference, the building of socialism required the following 141/:

- (1) The creation of a national army.

\* The program for "building socialism" consists of the various measures for Sovietization of the economy and for its development under centralized planning following the Soviet mode. See 5, a, below.



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(2) The strengthening of the state through a reorganization of the government and the rewriting of the labor, civil, and criminal codes:

(3) The creation of the economic basis for socialism by quickly breaking the bottlenecks in basic industries, increasing labor productivity, improving the quality of production, and so on.

(4) The formation of agricultural producers' cooperatives.

(5) The strengthening of the ideological orientation of Party members and the elimination of the last vestiges of capitalistic thought and methods from the nationalized economy.

Following the Second Party Conference, the atmosphere of terror and oppression in East Germany increased appreciably. Persecution of the churches increased, and membership in Protestant youth groups was made ground for dismissal from school. Prosecution of farmers and other private businessmen for tax evasion and sabotage increased. In October the "Law for the Protection of the People's Property" was passed. 142/ This vague law provided stiff penalties for incorrect reporting in the nationalized economy and for failing to report an instance of planned or actual crime against the nationalized economy, as well as for the usual crimes of theft and embezzlement. Recruiting for the People's Police was stepped up, and restrictions on interzonal travel were increased. In January 1953 a law was passed forbidding East Germans to make any contact with representatives of Western governments and international organizations except through the Foreign Office. 143/ In January also the Central Committee of the SED recommended that the efficiency of the distribution system be improved by removing all capitalistic influence from wholesale trade and by expanding local retail cooperatives. 144/ Quotas for the delivery of meat animals, milk, and eggs were raised in January. 145/ In February 1953 the law on the "Safeguarding of Agricultural Production and the Supply of the People" was passed. 146/ This law provided that a farmer who, in the judgment of the Bezirk council, violated the law or did not operate his farm according to regulations could be dispossessed of his farm and that the farm could be turned over to the agricultural cooperatives. In March the income tax for private firms was increased. 147/ In April, ration cards were taken away from the self-employed and owners of private industry and trade. 148/

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On 14 May the Central Committee of the SED called for a 10-percent increase in working norms, effective 1 June 1953. 149/

The introduction of these repressive and unpopular measures leading to more complete Sovietization coincided with a severe food shortage, brought on partly by a very poor harvest of root crops in 1952 but aggravated by greatly increased deliveries of foodstuffs to the state reserves and by the drive for collectivization. Beginning in the second half of 1952, the influx of refugees from East Germany into West Germany rose sharply, and it reached unprecedented proportions in the first half of 1953.\* It is estimated that about 340,000 people fled to the West between June 1952 and July 1953.

b. The "New Course."

On 9 June 1953 the Central Committee of the SED recommended a number of measures that amounted to an abrupt reversal of the repressive tactics of the previous year. The recommendations were accompanied by the admission that the government and Party decisions of the past year and the manner in which they had been enforced had been responsible for the mass exodus from East Germany. 150/ The measures recommended by the SED and subsequently adopted by the government included 151/: (1) a reduction of the rate of investment in heavy industry and an increase in the production and distribution of consumer goods; (2) some rehabilitation of the private sector of trade and industry; (3) some reduction of pressure on the private sector of agriculture, including repeal of the laws on "Safeguarding Agricultural Production and the Supply of the People" and "Devastated Agricultural Land," (4) nonretaliation against refugees returning from West Germany and the return of confiscated property; (5) easing of restrictions on travel between East and West Germany; (6) abandonment of the campaign against the churches and Protestant youth organizations and the release of arrested pastors; (7) amnesty for persons sentenced to 3 years or less for economic crimes; and (8) issuance of ration cards to all persons. No mention was made of repealing the increase in working norms. On 17 June, widespread rioting occurred throughout East Germany, beginning ostensibly as a protest against increased working norms. The riots were stopped by the intervention of Soviet troops and tanks.

\* For a discussion of migration, see II, E, below.

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On 21 June 1953 the Central Committee of the SED recommended further concessions, including (1) repeal of the minimum 10-percent increase in working norms which had been ordered in May to take effect in June, (2) an increase in social security benefits and the reduction of contributions to former levels, (3) an increase of over DME 600 million in the value of housing construction and social facilities as compared with 1952, and (4) the abolition of electric power cuts for householders. 152/

In succeeding months, announcements of measures to improve the standard of living of the populace have increased in number and importance. The most important of these measures are (1) an increase in wage rates for the four lowest wage groups, and for doctors, dentists, and pharmacists; (2) a decrease in taxes on wages and on incomes from private business; (3) price reductions on over 12,000 consumer goods; (4) reductions in compulsory deliveries of agricultural products; and (5) announcement of quantitative changes in the plan to decrease investments in heavy industry and to increase the production of consumer goods. 153/

Nearly every member of the East German government who has spoken on the "new course" has quantified the value of the planned increase in real income. Foreign Minister Lothar Bolz said on 7 November that "the population had benefited to the extent of DME 3.4 billion in the second half of 1953." 154/ On 26 October, Grotewohl gave DME 3.8 billion as the value of measures taken under the "new course," but the period and the items covered were not specified. 155/ The most detailed and internally consistent account of the financial aspects of the "new course" was given by Grotewohl in a speech before the Volkskammer on 29 July 1953. 156/ It can be calculated from Grotewohl's figures that the increase in real income from wage increases and price and tax reductions is DME 1.4 billion. Late in October, prices and taxes were reduced further. In his October speech, Grotewohl gave figures of DME 540 million for the value of the latter price cuts and DME 450 million as the value of the tax cuts, but the period to which he referred is not clear. 157/ If these latter figures are on an annual basis, then for November-December DME 165 million more should be added to the planned increase in real income during the second half of 1953. This gives a total of DME 1,565 million as the added benefit to the population from wage increases and price and tax reductions. The average monthly wage bill originally planned for 1953 was probably something over DME 2.1 billion. 158/

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The planned increase in retail turnover in the second half of 1953 is DME 5 billion over actual turnover during the first half. A part of this increase was originally planned as a normal seasonal increase. About DME 2.4 billion worth of goods, in pre-July prices, are to be available in the second half of 1953 in addition to those originally planned. According to Grotewohl, the sources of these goods are imports from the USSR and added production from domestic sources under the revised plans. 159/

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A normal seasonal increase in supplies of food took place during July and August. Additional meat, fats, and textiles appeared on the market in July, apparently released from state reserves as announced by the government. Ration cards were fully honored during the fall, but shortages developed during the winter. According to reports in East German newspapers, the elimination of electric power cuts to households was not accomplished, but improvements in that direction were reported. 162/

It appears that in its initial stages the improvement in the scale of living promised under the "new course" was implemented with imports from the USSR and from domestic reserves. The important question is whether or not East Germany can continue to improve the scale of living and pay off its foreign trade debt from its own resources. It seems that this is quite possible. The cessation of reparations deliveries and other uncompensated deliveries will free a minimum of 4.4 percent of GNP and 8.8 percent of industrial goods production for East German use in consumption or investment. In the

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recent past, reparations goods have been largely machinery and fine mechanical optical equipment. Not much of the capacity of the firms formerly producing reparations goods can be used directly to increase the scale of living, but the goods formerly sent to the USSR as reparations presumably can now be exported. Excess capacity is also available in the consumer goods industries of East Germany.\*

The leaders of the SED have reiterated that the "new course" is not a retreat from socialism but is merely a better way of achieving it. They have stated that the general line of the Party was and remains correct. 163/ In this they have been consistent. None of the measures taken under the "new course" would reduce the level of socialization achieved by the summer of 1952, although a minor retreat from mid-1953 levels took place. The pace of investment in heavy industry has apparently slackened, and a real increase in the scale of living has taken place. In the long run, this policy should serve the USSR better than the harsh measures undertaken to build up socialism in the summer of 1952. There is evidence that the very speed of the investment program resulted in considerable waste of resources. A slowly rising scale of living should do much to allay unrest among the East German people and at least reduce active resistance. The USSR thus can continue to hold out the promise of German unity while consolidating its hold upon East Germany and particularly upon the minds of its youth.

C. Economic Development.

East Germany, including East Berlin, had in 1945 approximately one-third of the total area, population, arable land, and industrial capacity of "Potsdam" Germany. 164/ Before the war the area now known as East Germany (the West Germans refer to it as "mittel Deutschland") "exported" to the rest of Germany about as much as it "imported" in value, sending out one type of agricultural product (grain, potatoes, and sugar) in return for another (dairy produce, meat, edible fats, and livestock) and exchanging such industrial commodities and raw materials as optics, precision instruments, textile and printing machinery, textiles, newsprint, and lignite against heavy machinery, bearings, rubber products, iron, and steel. 165/ Before the war, industry and agriculture each produced a slightly higher share of the regional GNP in East Germany than in

\* The changes in the production and investment plans connected with the "new course" are discussed in C, below, and in IV, A, below.

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West Germany. 166/ In general, West Germany was the producer of basic materials, and East Germany contained predominantly the processing and finishing industries. 167/

The composition of the East German GNP in 1938 and from 1948 through 1953 is shown in Table 1.\* The proportion of GNP originating in the agricultural sector of the economy has decreased somewhat since 1948 and now approximates the 1930 proportion. But the most striking change has taken place in the industrial sector, which accounted for 34 percent of GNP in 1948 and 54 percent of the much larger GNP of 1953. This growth in the proportion of GNP originated by industry has occurred largely at the expense of the services and trade sectors. East Germany is the most industrialized country in the Soviet Bloc. The percentage of GNP produced in industry in 1952 -- 51.8 percent -- was larger in East Germany than in any other Bloc country, and the percentage produced in agriculture -- 13.4 percent -- was the smallest. In the USSR the comparable percentages were 40.5 percent in industry and 21.4 percent in agriculture.

The GNP of East Germany in 1953 amounted to \$14.0 billion (1951 US \$).\*\* Table 2\* shows the trend in the GNP of East Germany in recent years. Recovery from the very low postwar level was rapid, especially after 1948, but the GNP in 1953 was still below the 1938 level. Recent annual rates of increase were 13.6 percent in 1950, 13.0 percent in 1951, 9.7 percent in 1952, and 6.4 percent in 1953. The high rate of increase in 1950 was partly the result of a sizable gain in agriculture that resulted from favorable weather conditions. In addition to this, the rapid growth of GNP prior to 1952 represents a recovery from the effects of the war and Soviet dismantlings. The rate of gain in 1952 and 1953 is approximately the rate that is expected in 1954 and 1955.

\* Tables 1 and 2 follow on p. 37.

\*\* The dollar value of the GNP for 1953 was arrived at by moving forward an estimate of prewar GNP in dollars by the GNP indexes given in Table 2. The prewar dollar estimate was obtained from Colin Clark's estimate 169/ for prewar Germany. Ferdinand Grunig's estimate 170/ of the share of West Germany in prewar German GNP was subtracted and adjustments were made for other territorial changes. The prewar estimate was then inflated to 1951 dollars.

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Table 1

Composition of East German Gross National Product  
by Sector of Origin <sup>a/ 168/</sup>  
1938 and 1948-53

	Percent						
	<u>1938</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
Industry	52.4	34.3	38.6	43.1	47.8	51.8	54.1
Agriculture	12.3	15.5	14.9	15.6	15.0	13.4	11.7
Transport and Communications	6.5	4.9	5.9	6.1	6.0	6.1	6.3
Construction	5.0	5.1	4.8	5.3	5.1	4.9	5.5
Services	9.3	20.3	18.5	16.0	13.9	12.5	11.5
Trade	14.5	19.9	17.3	13.9	12.2	11.3	10.9
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

a. Calculated from wage and employment data.

Table 2

Indexes of Selected Sectors of East German Gross National Product  
1938 and 1948-53

	1950 = 100						
	<u>1938</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
Agriculture	120	80	84	100	108	106	99
Industry	185	64	79	100	125	149	166
Transport and Communications	162	65	85	100	111	123	135
Construction	146	78	80	100	108	114	137
GNP	152	81	88	100	113	124	132

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If the East German economy averages a 7.5-percent-per-year increase in 1954 and 1955, the GNP in 1955 will be about \$16.2 billion (1951 US \$).

The "new course" is not likely to affect substantially the over-all growth of the economy over the next 2 years except insofar as it checks a deterioration of worker morale and productivity. Some gain in production can be expected from the fuller utilization of consumer goods industries, where considerable excess capacity has existed. Primarily the "new course" will affect the composition of production rather than its over-all growth. Output of consumer goods will grow more rapidly and output of producer goods more slowly than heretofore.

## II. Labor and Population.

### A. State Control over Labor.

Public policy in the field of labor is administered chiefly by the Ministry of Labor. Other economic ministries, however, especially those directly concerned with production, and local agencies participate in the implementation and control of labor policy. Measures taken by the various organizations are coordinated in the over-all economic plan which establishes the objectives for the economy as a whole and for the principal sectors. The Ministry of Labor exercises jurisdiction in general labor matters and collaborates with the other economic ministries in the execution of manpower plans. If necessary, the Ministry of Labor may issue mandatory directives for carrying out government-approved plans for the allocation of labor to projects of special economic significance. The Ministry, through its departments and local agencies, is primarily concerned with procurement of labor for basic industries and important enterprises, research on manpower requirements and supply, attempts to increase the percentage of women in the working force, supervision of labor reserves and juvenile workers, promotion of the activist movement and socialist competition, formulation of wage policy, development and introduction of wage group classifications and technical work norms, drafting of new social legislation, and labor statistics.

The executive organs of the local governments are subordinated to the ministries of the central government in carrying out labor policies. These agencies replace the traditional labor exchange

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offices, which were dissolved. In addition to certain functions in confirming and supervising collective wage "agreements," the local agencies have the following duties: to utilize the local labor reserves, to organize the allocation of workers among the various establishments and administrative districts of the country, to assist nationalized enterprises in the recruitment of labor, and to maintain registers of employed and unemployed workers. Managements of local enterprises are required to report at frequent intervals the number of workers employed, new additions, and workers discharged, giving details for changes of status of individual workers. In carrying out the allocation of workers to particularly important establishments, the local agencies may issue compulsory work assignments.

The government utilizes the training facilities of the educational system in planning the supply of labor to meet the requirements of economic plans. Vocational training receives great emphasis. The production ministries arrange for apprentice training and factory vocational schools.

Free unionism of the Western type does not exist in East Germany today. The Labor Code asserts: "In our new democratic order in which the key enterprises belong to the state, the right of wage and salary earners -- the decisive power in the state -- to participate in the determination of the conduct of the economy is realized through the organs of the democratic state." <sup>171/</sup> Accordingly, the unions cannot strike against state-owned enterprises, and they have been deprived of the right to negotiate the basic conditions of employment and of other rights which under traditional Western and German thought are considered part of the freedom to organize. Only one union organization is allowed to exist -- the Federation of Free German Unions -- which is composed of 20 affiliated unions with a total membership of more than 5 million persons. Its primary function is to carry out the policies of the government and the SED rather than to represent the specific interests of workers with respect to management or even the government. Performance of this duty is secured by placing reliable Communists in the leading positions in the unions and in the government. The most important functions of the unions in the nationalized enterprises are to promote increased productivity at lowest possible costs, to organize "cultural programs" for indoctrinating labor with the Communist ideology, and to administer the social insurance system. At most, the role of unions in the management of the publicly owned sector is advisory, and though the trade-union shop representative may use his participation in

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"People's Control" to complain about irregularities, action on complaints will occur only with the consent of the public administration, the Party leadership, and the top command of the union. The latter are unified through the device of identical, Communist leadership, and action will be taken only when it is expedient in the view of this leadership.

Administration of the social insurance system by the Federation of Free German Unions has increased the strong pressure on workers to become and remain members of the unions. This again brings out the quasigovernmental character of the union organization. Union officials, instead of working for changes in policies considered undesirable by workers, are obliged to help in the enforcement of such policies. For this reason, most of the important union activities are in practice initiated and carried out by the executives of the Federation rather than by the member unions. One of the aims of the regime is to indoctrinate the youth of the country and re-educate adults to accept the new concept of the union as an executor of public policies. At present, opposition to this concept is still strong.

In the declining private sector of the economy, unions are expected to safeguard the interests of workers and to promote the conversion of private enterprise to socialist forms. Apart from the enforcement of the "right to codetermine" business policies in private enterprises, the Federation of Free German Unions points out that the tasks of the unions should include checking of tax payments, control of price policy, and supervision of the performance of contracts with publicly owned enterprises. But lower union officials and members, instead of supporting the policy of the Federation, have, not infrequently, helped private employers to ward off the breakdown of their business. In such instances, union officials have followed the policy of demanding concessions on the basis of the employer's ability to finance them out of profits after taxes without endangering the existence of the firm. As a result, employees in the private sector sometimes have been more favorably paid than in the public sector and sometimes less so. Federation leadership has criticized this as a violation of the principle of equal pay for equal work and has urged that skilled workers in the private sector should not be paid more than those in the public sector, since their skills are necessary for "building socialism." At the same time, it is strongly urged that wages in the lower categories should be raised in the private sector. Beyond that, Federation leadership has demanded that any remnants of class harmony between workers and private employers should be extirpated.

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S-E-C-R-E-TB. Manpower and Labor Planning.

The current Five Year Plan 172/ sets the goal for employment in the national economy at 7.1 million persons by 1955: that is, 13 percent above the 1950 level, or a gain of about 800,000 workers. Of the total, 2.77 million are to be women, and 4.33 million are to be men. The plan also provides for a 60-percent increase in labor productivity during the same period. In view of the available pool of manpower, the Plan does not appear unfeasible quantitatively. The requirements for highly skilled labor, however, may be difficult to meet.

As a means of achieving the planned expansion of the dependent\* labor force, the plan envisions an increase in the proportion of employed women, improvement of vocational training and schooling, and location of new plants in the less industrialized regions. To these measures should be added the transfer of self-employed persons to hired status and the absorption of the unemployed. In mid-1950 there were probably about 260,000 unemployed in East Germany, 173/ and early in 1952 official unemployment probably still exceeded 200,000. This number does not include individuals who have refused to accept jobs offered to them and who are therefore not officially recognized as unemployed. The total employment rose about 300,000 from 1950 to 1952. 174/ Since in February 1952 about 10.6 million persons were registered under the regulation requiring all persons between the ages of 14 and 65 and able to work to register, it appears that the manpower pool is great enough to meet the planned expansion of employment. Difficulties may be experienced in getting women to leave household duties in favor of other employment, in curbing the flight of people to West Germany, and in transferring the self-employed to a hired status by the liquidation of private enterprises, but, given the powers available to the government, it appears that the employment goal is not unattainable. Evidence of the scarcity of qualified engineers, technicians, and other specialists is found in the current emphasis on the creation of new training facilities and on efforts to halt defections of these specially skilled personnel by raising wages and salaries, 175/ by improving the professional and social position of the "technical intelligentsia," and in the comprehensive program to recruit West German scientists and other specialists. 176/ In view of the relatively high proportion of skilled and professional manpower in prewar Germany, the present

\* Wage and salary workers as distinct from self-employed.

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scarcity probably is caused by defection to the West and perhaps also by Soviet recruitment for service in the USSR.

C. Labor Force and Population.

As a result of the influx of refugees and expellees from the east and the return of prisoners of war, the population of East Germany, including East Berlin, increased between 1946 and 1949 from about 18.5 million to 19.1 million, but it has declined since then to the 1946 level and has remained at about that level to the present time. 177/ The principal factor in decline has been the flight of refugees to West Germany.

Persons gainfully employed in East Germany on 1 February 1952 totaled 7,855,000, of whom 1.5 million were nonagricultural self-employed, including family helpers. The distribution of the remainder and the goals for 1955 are shown in Table 3.\* 178/ These figures show the dominant role of nonagricultural employment in 1952 and the relative, but not absolute, decline scheduled for agriculture by the end of 1955.

D. Incentives and Other Devices to Increase Output.

The East German government, through the public enterprises, employs the majority of the wage and salary workers in the country. The government uses three basic types of methods to increase output per worker: economic incentives, ideological indoctrination, and coercive and penal measures. The techniques employed under each method are constantly refined, and the pressures intensified. Economic incentives are applied by the use of differential wages for the various job classifications and by piecework rates and premiums on the quantity and quality of work produced. Individual and group incentives are designed to increase output per worker and per production team.

In establishing norms of output, there is a strong tendency to use the results achieved by outstanding employees and to set the norm considerably above the statistical average attained by a given group of workers. Ideological propaganda seeks to convince the workers that such procedures are necessary to increase the welfare of the country. Because of large allocations of the increment of

\* Table 3 follows on p. 43.

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Table 3

Employment in East Germany by Sectors  
1952 and 1955 Plan

Branch	1952			1955 Plan		
	Male	Female	Total	Male	Female	Total
Industry	1,525,000	928,000	2,453,000	1,685,000	1,185,000	2,870,000
Building Trades	211,000	143,000	354,000	245,000	180,000	425,000
Agriculture and Forestry	1,106,000	1,018,000	2,124,000	1,200,000	1,100,000	2,300,000
Transportation	431,000	104,000	535,000	450,000	130,000	580,000
Public and Private Service Employees	714,000	175,000	889,000	750,000	175,000	925,000
Total	<u>3,987,000</u>	<u>2,368,000</u>	<u>6,355,000</u>	<u>4,330,000</u>	<u>2,770,000</u>	<u>7,100,000</u>

national product to investment and other nonconsumption uses, however, the enthusiasm of the workers for constant upward revision of norms with wages fairly constant has failed to come up to the planners' expectations. Indeed, the attempt to raise norms has met with growing resentment on the part of the workers. Following the decision of the Council of Ministers on 28 May 1953 that all norms must be raised again at least 10 percent by 30 June 1953, without provision for commensurate increase in wage rates, there were demonstrations in mid-June, first by construction workers in Berlin and subsequently by workers in other centers, which grew into broad protests against the oppression of the Communist regime. These events forced the government to repeal officially the decision of 28 May and to decree that wage calculations in the socialized sector, as of 1 June 1953, should be based on the working norms valid on 1 April 1953. Although the government thus found it expedient to modify its immediate objectives, it has not forsaken the ultimate goal. The Politburo of the SED on 16 June 1953 repeated the arguments in favor of raising work norms and declared that the 10-percent increase should be carried through not by order of the ministries concerned but "solely on the basis of persuasion and voluntary decision." This, however, is not a fundamental change in policy, as the government has always been careful to maintain the impression that its decisions are motivated by the demands of workers.

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In the application of economic incentives, the government has sought to direct workers to priority sectors of the economy by offering higher average wages in these areas. In order to cause workers to increase their skills, it has introduced classifications of jobs by difficulty and by necessary skills, with corresponding wage differences. Extraordinary merit and achievement are rewarded by prizes and honorary titles, and longevity in service is recognized by premiums. As a complement to the financial incentives, the East German policy makers have pursued a program of ideological propaganda to win the support of workers for economic objectives of the regime. The principal devices used in this endeavor are "cultural programs," socialist competitions, and the activist movement, although the latter contains financial incentives as well. It corresponds to the Soviet Stakhanovite program. Meritorious group performance is rewarded by expenditures for collective benefit from the "Director's Fund," which is based on profits of the enterprise.

Although it is impossible to trace separately the effects of the various incentives employed in increasing productivity, the presence of an assortment of penal provisions for violations of labor discipline and the provision for compulsory assignment of individuals to particularly important segments of activity indicate that the incentive schemes in themselves have not sufficed to reach the objectives set in plans. The continued migration from East Germany to West Germany is further evidence of the inadequacy of economic incentives.

E. Migration.

After the first flare-up of defection at the beginning of the postwar period, the number of refugees from East to West Germany declined steadily until mid-1952. In the second half of 1952 it began to increase again, and in the first half of 1953 it reached unprecedented proportions. Beginning in June 1953, the influx of refugees from East Germany dropped sharply to reach a low of less than half the rate which prevailed earlier in the year. In recent weeks the number of refugees arriving in West Berlin and other reception centers has again begun to increase. Details of the East-West migration are shown in Tables 4 and 5.\*

\* Continued on p. 48. Tables 4 and 5 follow on pp. 45 and 47, respectively.

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Table 4

Migration a/\* between West Germany and East Germany, between West Berlin and East Germany,  
and between West Berlin and East Berlin, by Time Period 181/  
1948-52

Time Period	Number of Persons Migrating			Number of Persons Migrating			Number of Persons Migrating		
	Net Migration To West Germany From East Germany	To West Germany From East Germany	From West Germany To East Germany	Net Migration To West Berlin From East Germany	To West Berlin From East Germany	From West Berlin To East Germany	Net Migration To West Berlin From East Berlin	To West Berlin From East Berlin	From West Berlin To East Berlin
1948									
March	N.A.	N.A.	N.A.	1,351	2,539	1,188	N.A.	N.A.	N.A.
2d Quarter	N.A.	N.A.	N.A.	6,011	9,829	3,818	N.A.	N.A.	N.A.
3d Quarter	N.A.	N.A.	N.A.	3,751	7,264	3,513	N.A.	N.A.	N.A.
4th Quarter	N.A.	N.A.	N.A.	5,359	8,329	2,970	N.A.	N.A.	N.A.
Total (March- December)	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>	<u>16,472</u>	<u>27,961</u>	<u>11,489</u>	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>
1949									
1st Quarter	N.A.	N.A.	N.A.	4,255	7,074	2,819	N.A.	N.A.	N.A.
2d Quarter	N.A.	N.A.	N.A.	7,287	9,696	2,409	N.A.	N.A.	N.A.
3rd Quarter	N.A.	N.A.	N.A.	8,795	11,292	2,497	N.A.	N.A.	N.A.
4th Quarter	N.A.	N.A.	N.A.	12,742	15,049	2,307	N.A.	N.A.	N.A.
Total	<u>220,000</u>	<u>255,000</u>	<u>35,000</u>	<u>33,079</u>	<u>43,111</u>	<u>10,032</u>	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>
1950									
1st Quarter	41,943	49,740	7,797	9,552	11,689	2,137	2,810	5,095	2,285
2d Quarter	48,344	56,848	8,504	11,911	13,771	1,860	3,272	5,467	2,195
3d Quarter	57,781 b/	65,287 b/	7,526 b/	12,141	14,270	2,129	3,865	6,041	2,176
4th Quarter	65,779 c/	73,849 c/	8,070 c/	12,181	13,835	1,654	4,402	6,653	2,251
Total	<u>214,704 d/</u>	<u>246,792 d/</u>	<u>32,088 d/</u>	<u>45,785</u>	<u>53,565</u>	<u>7,780</u>	<u>14,349</u>	<u>23,256</u>	<u>8,907</u>

\* Footnotes for Table 4 follow on p. 46.

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Table 4

Migration <sup>a/</sup> between West Germany and East Germany, between West Berlin and East Germany, and between West Berlin and East Berlin, by Time Period 181/  
1948-52  
(Continued)

Time Period	Number of Persons Migrating			Number of Persons Migrating			Number of Persons Migrating		
	Net Migration To West Germany From East Germany	To West Germany From East Germany	From West Germany To East Germany	Net Migration To West Berlin From East Germany	To West Berlin From East Germany	From West Berlin To East Germany	Net Migration To West Berlin From East Berlin	To West Berlin From East Berlin	From West Berlin To East Berlin
1951									
1st Quarter	44,934	49,902	4,968	9,605	11,068	1,463	1,054	5,918	4,864
2d Quarter	40,445	45,976	5,531	12,233	13,547	1,314	5,109	6,159	1,046
3d Quarter	44,449	51,748	7,299	13,873	15,575	1,702	4,458	5,507	1,049
4th Quarter	42,046	47,761	5,715	13,476	14,804	1,328	3,727	4,548	821
Total	<u>171,874</u>	<u>195,387</u>	<u>23,513</u>	<u>49,187</u>	<u>54,994</u>	<u>5,807</u>	<u>14,348</u>	<u>22,128</u>	<u>7,780</u>
1952									
1st Quarter	25,447	30,009	4,562	8,398	9,980	1,582	2,794	3,628	834
2d Quarter	27,426	32,047	4,621	N.A.	N.A.	N.A.	2,509	3,260	751
3d Quarter	24,828	27,765	2,937	N.A.	N.A.	N.A.	3,323	4,134	811
4th Quarter	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	4,732	5,550	818
Total	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>	<u>13,358</u>	<u>16,572</u>	<u>3,214</u>

a. Based on [ ] arrivals and departures.

b. Period from 1 July to 13 September 1950.

c. Period from 14 September to 31 December 1950.

d. The totals for the four quarters are slightly different from the total for the year [ ]

50X1

50X1



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Table 5

Total Persons Passing Through the Emergency Acceptance Procedure in Berlin by Age and Sex 182/  
January 1952-June 1953

Age Groups	1952			1953, First Quarter			April 1953			May 1953			June 1953		
	Total	Percent	Male	Total	Percent	Male	Total	Percent	Male	Total	Percent	Male	Total	Percent	Male
Under 6	9,356	8.2	4,813	10,138	9.3	5,206	3,104	8.8	1,601	3,401	9.9	1,761	3,655	9.4	1,911
6 to Under 14	14,633	12.9	7,519	16,346	15.0	8,425	5,107	14.5	2,631	4,943	14.5	2,541	4,900	12.6	2,526
14 to Under 18	10,479	9.2	6,650	10,408	9.5	6,053	3,999	11.4	2,292	3,883	11.4	2,147	5,050	12.9	3,017
18 to Under 21	10,981	9.7	7,333	7,318	6.7	4,049	2,503	7.1	1,411	2,366	6.9	1,307	3,300	8.5	1,982
21 to Under 25	9,186	8.1	5,540	6,203	5.7	3,163	2,024	5.8	1,007	2,036	6.0	1,015	2,610	6.7	1,427
25 to Under 45	35,622	31.4	17,801	33,357	30.5	14,145	10,431	29.6	4,463	9,927	29.1	4,373	11,302	29.0	5,187
45 to Under 65	21,411	18.9	12,390	22,999	21.0	11,147	7,146	20.3	3,593	6,769	19.8	3,410	7,320	18.8	3,797
65 and Over	1,751	1.6	957	2,569	2.3	1,215	873	2.5	425	819	2.4	405	832	2.1	397
Total	<u>113,419</u>	<u>100.0</u>	<u>63,003</u>	<u>109,338</u>	<u>100.0</u>	<u>53,403</u>	<u>35,187</u>	<u>100.0</u>	<u>17,423</u>	<u>34,144</u>	<u>100.0</u>	<u>16,959</u>	<u>38,969</u>	<u>100.0</u>	<u>20,244</u>

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There is no reason to assume that the large drop in defections has been entirely, or even chiefly, caused by the introduction of the "new course." Although a number of persons may have given up or postponed defection because of hope for improvement of their lot under the "new course," it is probable that more people have been prevented from fleeing by more effective border controls.

F. Scale of Living.

Analysis of the trend in the scale of living in East Germany from price-wage statistics is complicated by the presence of coupon rationing and a two-price system of rationing under which scarce goods are sold for very high prices in state-owned stores called HO's. The basic needs of the low-income sectors of the population can theoretically be met by the private retailers and consumers' cooperatives, which must sell at controlled prices. During the past 3 years the prices in HO stores have been lowered a number of times, and controlled prices have been raised, with a resultant lowering of the gap between the two, but the gap is still considerable. The scale of living in East Germany rose gradually from very low postwar levels up to 1952, when per capita consumption is estimated to be still substantially below the prewar level.

Poor agricultural harvests in 1951 and 1952 sharply reduced the availability of food supplies in the 1952-53 food year.\* Following the announcement of the "new course" in June, the situation was relieved in part by drawing on state reserves and by supplemental food imports from the USSR. 179/ The average daily caloric intake per capita in East Germany stood at 2,612 in the period from 1933 to 1937, 2,081 in the food year 1951-52, and 1,917 in 1952-53, 180/ or, in percentages, 1952-53 was about 73 percent of prewar and 92 percent of 1951-52. Reduced availabilities of milk, cheese, eggs, vegetables, and legumes probably account for a lesser percentage of total calories consumed in postwar than in prewar years.

The consumption of manufactured consumer goods presents a more difficult problem for analysis than food alone. Per capita production of a representative sample of manufactured consumer goods, which includes an estimate of manufactured food items, indicates that East Germany has been able to attain a postwar high of about 70 percent

\* The food year extends from 1 July to the following 30 June.

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of the prewar level in 1953.\* Although the present area produced a surplus of consumer goods end items prior to the war, it is thought that present levels of production fall well short of local requirements. Ample evidence indicates that shortages of consumer goods are very real to the residents of East Germany.

Under the "new course" the output of agricultural and light industrial products has received more favorable attention than in the past. Increased imports of manufactured consumer goods and food items will depend upon the availability of export commodities. With the apparent relief from the burden of reparations and other uncompensated deliveries to the USSR, it would appear that East Germany has a favorable opportunity for increasing the scale of living. This, however, will depend on the possibility of new forms of Soviet exactions and the sincerity of the local regime in its declared intention of improving the lot of the people.

### III. Agriculture.

#### A. Agricultural Policies.

Since the beginning of the Soviet occupation of East Germany, the traditionally conservative peasantry has been subjected to a broad program of economic regimentation. This program is aimed at the complete socialization of all agricultural production facilities as well as a substantial increase in agricultural production. The basic steps in this typical Communist "reconstruction" of agriculture have been (1) the execution of a land reform program from 1945 to 1949, (2) the establishment of machine and tractor stations, (3) the reorganization and expansion of agricultural producer cooperatives, (4) the creation of state farms, and (5) the organization of agriculture on a partially planned basis by means of the delivery quota system.

##### 1. Land Reform.

In September 1945 the Soviet Military Administration decreed a program of land reform in East Germany which included the following principal features 183/:

\* Based on 1953 production estimates made early in the year.

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a. The total area of all estates containing over 100 hectares was to be confiscated without compensation. All livestock, buildings, and personal properties on the estates were to be included in the confiscation.

b. All estates belonging to leading Nazis, war criminals, and absentee owners were also to be expropriated, regardless of the size of the holding.

c. The land confiscated was to be given to agricultural workers, farmers whose land holdings were less than 5 hectares, refugees and expellees from the East, and industrial and urban workers.

d. A Farmers' Mutual Aid Association was to be established as a part of the self-help program for the people who obtained land under the land reform law.

The execution of the land reform program was extremely rapid. By December 1946 the amount of land expropriated amounted to about 2,744,000 hectares, of which 1.7 million hectares had been distributed. 184/ By the end of 1947, a total of approximately 3 million hectares had been expropriated and a total of about 2,758,000 hectares distributed. For a variety of reasons, expropriation occurred on a small scale thereafter until the fall of 1952, when it was increased as a part of the collectivization program. Approximately one-third of the total amount of expropriated land was retained by the state or communal organizations. 185/

The land reform program resulted in a basic change from the prewar period in the pattern of land ownership, as shown in Table 6.\* Approximately 30 percent of the total area, or over 45 percent of the agricultural land, was affected by the land reform. From 1939 to June 1951, there was an 85-percent reduction in the number of farms of over 100 hectares, a 30-percent increase in the number of farms with from one-half hectare to 5 hectares, and a 95-percent increase in the number of farms containing from 5 to 20 hectares. It is obvious from these figures that many small, uneconomical farming units were created.

\* Table 6 follows on p. 51.

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Table 6

Number and Size of Farms in East Germany  
 May 1939, June 1946, and June 1951 186/

Size of Farms (Hectares of Agri- cultural Land)	May 1939		June 1946		June 1951	
	Number of Farms	Percent of Total	Number of Farms	Percent of Total	Number of Farms	Percent of Total
0.5 - 5	345,067	57.7	332,026	44.6	447,772	51.6
5 - 20	189,528	31.7	353,613	47.4	370,715	42.8
20 - 50	48,727	8.2	50,926	6.8	43,381	5.0
50 - 100	8,133	1.4	7,618	1.0	4,408	0.5
Over 100, and All State Farms	6,307	1.0	2,260	0.2	974	0.1
Total	<u>597,762</u>	<u>100.0</u>	<u>745,443</u>	<u>100.0</u>	<u>867,250</u>	<u>100.0</u>

The land reform was based primarily upon political rather than economic considerations. Land was distributed to new farmers on the basis of their political beliefs without any attempt to ascertain farming ability, and little consideration was given to local conditions or needs. More serious still was the placing of new settlers on farms without adequate supplies or equipment, draft power, farm buildings, or housing. It is estimated that by mid-1949, 10,000 new settlers, or 5 percent of the total of 200,000 such persons, had left their farms.

To improve this situation, the Farmers' Mutual Aid Association (Vereinigung der gegenseitigen Bauernhilfe -- VdgB) was organized to assist the new farmers in obtaining the necessary supplies of equipment, fertilizers, breeding stock, draft animals, machinery, and so on. The chief importance of the VdgB, however, probably lay in its political rather than its economic activities. The new farmers were regarded as the nucleus about which the conservative elements of the farming communities might gradually be "democratized." The Communist-controlled VdgB seemed particularly suitable as the instrument of "democratization," since direct economic pressure could be used to further the political objective. The VdgB assisted the farmers in formulating cropping plans, decided on compulsory delivery quotas,

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disseminated Communist propaganda, and came to be recognized as a body with political party status.

Another significant factor during the period following land reform was the reorganization and promotion of agricultural cooperatives. In the early years of the Soviet occupation, the cooperatives acted mainly as collecting agencies for the state, receiving the compulsory quotas of farm products, checking them for quality, and arranging storage. In addition, they were officially designated as the sole government purchasers of surplus farm produce, which they sold to the consumer cooperatives in the towns and cities.

During 1949 and 1950 many of the responsibilities of the VdgB and the agricultural cooperatives were transferred to regular state organizations. The machine and tractor stations were removed from VdgB management and were thoroughly reorganized and newly established Associations of People's-Owned Procurement and Purchasing Enterprises (Vereinigungen Volkseigener Erfassungs- und Aufkaufbetriebe -- VVEAB's) took over most of the functions of the agricultural cooperatives. In November 1950 the VdgB and the farm cooperatives were amalgamated into a new organization known as the VdgB/BHG (Bauerliche Handelsgenossenschaft).

## 2. Machine Tractor Stations.

The Machine Tractor Stations (MTS's),\* which were established in March 1949, took over the tractors and other equipment which the VdgB had acquired from farms expropriated under the land reform. The MTS's received from the VdgB approximately 6,700 tractors, of which 4,800 were usable. Since 1949, all available agricultural tractors have been channeled to the MTS's, which numbered 585 at the end of 1952. 188/ It is estimated that the current number of tractors in the MTS's is about 20,000 (calculated in terms of 30-horsepower units). 189/

The importance of the MTS's in the Communist plans for reconstructing the agricultural economy along socialist lines is manifested by their establishment under the DWK and by the speed with which they were set up throughout the Laender. Political

\* Before 4 December 1952, MTS's were known as MAS's (Machine Lending Stations). 187/ See footnote on p. 24, above.

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considerations were paramount from the outset. The MTS's would facilitate the setting up of collective farm systems after the Soviet pattern. The MTS's thus became a strong instrument in the fight against the owners of large estates, whose machinery was wearing out and could not be replaced under the discriminatory allocation practices of the government.

From their inception, the MTS's have discriminated against the larger holdings in providing services. Although statements have been made that MTS services are available to everyone, the fees charged per unit of work performed vary with the size of the farm. The larger the farm, the higher the price charged.\*

The MTS's have operated at a loss since their establishment because of a continuous shortage of spare parts, poor maintenance, bureaucratic mismanagement, and the cost of their required cultural and political activities in the rural areas. Furthermore, their success in increasing agricultural productivity has been limited by the concentration of their equipment on small plots of land instead of large farming areas. The MTS's were the subject of much criticism by leading governmental officials during 1953. During that time they were primarily engaged in servicing the agricultural cooperatives, which were officially set up in July 1952. Field work of all types lagged considerably, resulting in production losses for many of the cooperatives. Since the promulgation of the "new course," the services of the machine and tractor stations have been promised to the private peasants. <sup>191/</sup> Considering the ultimate East German objective of complete socialization of agricultural production, it is believed that the MTS's will continue to give priority to the agricultural cooperatives.

\* This is shown by the following indexes of prices charged, with the price per unit of work performed for farms of the smallest size equalling 100 <sup>190/</sup>:

<u>Size of Farm</u>	<u>Plowing</u>	<u>Drilling</u>	<u>Beet Digging</u>	<u>Potato Digging</u>
Up to 10 Hectares	100	100	100	100
10 - 15 Hectares	120	130	125	125
15 - 20 Hectares	150	200	250	206
Over 20 Hectares	250	280	350	288

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The East German Five Year Plan provides for 750 MTS's and 37,500 tractors by the end of 1955, 192/ and a goal of 10.19 million hectares of medium plowing\* has been set. 194/ It should be possible to supply the MTS's with these tractors, including complementary equipment, and an average annual quota of 272 hectares of medium plowing per tractor is not excessive.

3. Agricultural Production Cooperatives.

It was obvious from the early days of land reform that the collectivization of East German agriculture was the eventual Communist goal. But the policy was not stated officially until the Second SED Party Conference (9 to 13 July 1952), when Ulbricht announced the establishment of the Agricultural Production Cooperatives (Landwirtschaftliche Produktionsgenossenschaften -- LPG's). 195/ The voluntary nature of membership in the cooperatives was stressed at the conference and later in the farm areas to avoid antagonizing the peasants at harvest time. On 24 July 1952, soon after the conference, the government issued an order providing for preferential treatment of the new cooperatives in the following respects:

- a. Tractors, agricultural machinery, and other implements were to be supplied by the MTS's at reduced rates.
- b. The Ministry of Agriculture and Forestry was to place agrarian experts at the disposal of the MTS's for work assignments, free of charge, in the new cooperatives.
- c. The Ministry of Agriculture and Forestry and the VdgB were to meet in full all requirements of the cooperatives for mineral fertilizers for the winter and spring sowing of the 1952-53 crop year.
- d. High-quality seed was to be furnished to the cooperatives.
- e. Compulsory deliveries of grain, oilseeds, and potatoes for 1952 were to be reduced by 10 percent for members of cooperatives.
- f. Cooperatives were to be exempt from taxation for 2 years.

\* "Medium," or average, plowing is defined as the plowing rate of a standard 30-horsepower tractor plowing a furrow of 21 to 25 centimeters under normal conditions. 193/

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g. Members of cooperatives were to have a 25-percent reduction in 1952 taxes.

h. Long-, medium-, and short-term credits were to be granted to cooperatives.

During the first few months, the organization of the individual cooperative farms was somewhat haphazard. According to one report, "Horses were hastily sold in the expectation of supplies of machinery from the agricultural machine pools; entire crops were sold without making provision for seed and fodder needs; wages were agreed upon irrespective of work performed and the Peasants' Bank was expected to provide credits and loans 'ad lib'." 196/ This situation improved with the carrying out of government orders of December 1952 concerning model statutes for three types of LPG's, a labor code, and the evaluation of working norms.

The fundamental difference between the three types of cooperative is the extent to which land, animals, and machinery are pooled and the manner in which the net income of the cooperative is divided among its members. In the first type, the least integrated cooperative, only land under cultivation is pooled, and the members retain their animals and equipment. In the second type, all equipment and draft animals (excluding breeding and meat animals) also become the property of the cooperative. In the third type, pastures, meadows, and woodland as well as cultivated land, draft animals, and equipment are pooled. In the second and third types, larger proportions of the cooperatives' net incomes are distributed on the basis of property contributed (and smaller proportions on the basis of labor supplied) than in the case of organizations of the first type.

The number of cooperatives expanded from 59 in July 1952 to 1,815 at the end of the year (see Table 7\*), most of the increase taking place in the last quarter. Although membership was supposed to be voluntary, many pressures were used to force peasants into the cooperatives. Unrest prevailed throughout the countryside and many farmers fled to the West. Pressure (particularly on the larger farmers) to join cooperatives was further increased in December.

\* Table 7 follows on p. 56.

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Table 7

Development of Agricultural Cooperatives in East Germany  
July 1952-September 1953.

Date	Number of Cooperatives	Number of Peasants	Number of Farms	Holdings of Arable Land (Hectares)	Percent of Total Arable Land <sup>a/</sup>
1952					
July <sup>b/</sup>	59	N.A.	N.A.	N.A.	
August <sup>b/</sup>	160	N.A.	N.A.	N.A.	
September <sup>b/</sup>	387	N.A.	N.A.	N.A.	<sup>c/</sup>
October <sup>d/</sup>	714	11,215	7,598	53,579	1.1 <sup>c/</sup>
November <sup>b/</sup>	1,335	22,174	13,767	113,750	2.2
December <sup>b/</sup>	1,815	N.A.	N.A.	N.A.	
1953					
January <sup>b/</sup>	2,079	N.A.	N.A.	N.A.	
February <sup>e/</sup>	2,787	N.A.	52,618	242,340	4.7
March <sup>f/</sup>	3,149	N.A.	68,652	353,667	6.9
April <sup>g/</sup>	3,789	N.A.	N.A.	475,000	9.3
May <sup>h/</sup>	4,381	N.A.	N.A.	612,000 <sup>i/</sup>	12.0
June <sup>j/</sup>	5,070	N.A.	N.A.	709,800 <sup>j/</sup>	13.9
July	N.A.	N.A.	N.A.	N.A.	
August	N.A.	N.A.	N.A.	N.A.	
September <sup>k/</sup>	4,800	137,600	61,000	739,000	14.5

a. Total arable land is estimated at 5,100,000 hectares.

b. <sup>197/</sup>

c. Less than 1 percent.

d. <sup>198/</sup>e. <sup>199/</sup>f. <sup>200/</sup>g. <sup>201/</sup>h. <sup>202/</sup>i. Hectareage figure is based on a statement that one-eighth of total arable land, other than state farms, is held by cooperatives. Since 4 percent of arable land is considered to be in state farms, the figure 612,000 hectares is obtained by multiplying 5,100,000 x 1/8 x 96 percent. <sup>203/</sup>

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Table 7

Development of Agricultural Cooperatives in East Germany  
 July 1952-September 1953  
 (Continued)

j. These figures are estimates. The number of cooperatives is based on a report that 270 collectives had been disbanded in the last three months. With 4,800 cooperatives reported existing as of September 1953, this would make approximately 5,070 cooperatives in June 1953. The hectareage figures is obtained by multiplying the estimated number of cooperatives (5,070) by the assumed average size of cooperative farms of 140 hectares. (Average sizes in April and September 1953 were 125 and 154 hectares, respectively.)

k. 204/

In the first half of 1953 the number of LPG's increased by approximately 3,255, or about 175 percent, while the amount of arable land farmed by the LPG's increased to 13.9 percent of the total. By far the greatest number of cooperatives formed were of the first type. On 1 March 1953, 79 percent of the cooperatives were of the first type, 5 percent of the second type, and 16 percent of the third type. 205/

Most of the cooperatives are small; as of the end of 1953 the average size is estimated to be 125 hectares of arable land and 21 members. The inefficiency of operations has frequently been mentioned by government officials, and the general campaign to socialize agriculture, moreover, caused farmers to abandon an estimated 10 percent of the land by April 1953. In June 1953, the government announced a new policy aimed at keeping farmers on the land and raising output. As reported by the East German press, this program stresses improvement of existing LPG's rather than formation of new ones, offers land to persons who left their farms, and promises more liberal credit policies, adequate service by the MTS's and review of judgments against farmers for tax or delivery quota delinquencies. Confiscation of land because of tax or quota delinquencies is prohibited. 206/ Promises to reduce compulsory delivery quotas and to increase the availability of consumer goods in rural areas were offered as incentives to greater effort.

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No cooperatives were formed between June and September 1953; in fact, 270 were disbanded. In September, it was announced that LPG's could again accept new members and new cooperatives could be formed. A cautious agricultural policy may be followed for a time in East Germany, but the ultimate goal of total collectivization undoubtedly remains. While discrimination against the larger farmers will probably continue, such efforts must be reconciled with the area's serious need for increased agricultural output.

4. State Farms.

Public ownership of some farm land had its origin in the land reform, but the state farms (Volkseigene Gueter -- VEG's) were not set up until 15 June 1949. At that time, an order of the DWK declared as "people's property" (a) all enterprises devoted to agricultural production and forestry which previously belonged to Laender, Kreise, communities, and incorporated bodies and institutions, with the exception of churches, and (b) all undistributed properties made available to the Laender as a result of the land reform. This land was to be used in creating model farms for the purpose of growing high-quality seed and breeding cattle, helping "new settlers" in building up their farms, and promoting modern cultivation and breeding methods. 207/

To increase the efficiency and thus reduce the amount of government subsidies to the state farms, their number was reduced from 590 in 1951 to 513 in 1952. 208/ (After this consolidation, the state farms accounted for an estimated agricultural area of 212,000 hectares, or approximately 4 percent of the total arable land.) Nevertheless, the appointment of Communist politicians instead of trained agriculturalists as managers has had an adverse effect upon the production of the farms. The administrative apparatus and reporting requirements imposed upon the farms have appreciably increased the cost of production per hectare.

The state farms operate as a department of the Ministry of Agriculture and Forestry, where production plans and technical and financial matters are coordinated for the individual farms and for district groupings of farms. The farms are operated as much like industrial plants as possible. Labor policies are closely modeled after industrial labor practices, making use of a norm system and an 8-hour day. Bookkeeping and planning are on the basis of the calendar year instead of the production year (1 July to 30 June) usually employed in agriculture.

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In the future, as more machinery becomes available, the state farms may start cultivating some of the abandoned lands in order to increase the supply of food. But their primary responsibility will continue to be supplying the cooperatives with select seed and improved breeds of livestock.

5. Delivery Quota System.

On 29 March 1949, the government established the Associations of People's-Owned Procurement and Purchasing Enterprises (Vereinigungen Volkseigener Erfassungs- und Aufkaufbetriebe -- VVEAB's) as the collection agency for all quota farm products. This organization, in conjunction with the Ministry of Agriculture and Forestry, plans and sets the quotas and prices of farm products to be delivered to the government by the farmers each year. The system has been used as an effective economic weapon in expropriating the large land-owners. On the other hand, the high delivery quotas imposed on the farmers and the low prices paid for their produce have tended to depress output and increase black market operations, with the result that procurement plans for most commodities have been consistently underfulfilled.

The annual delivery quotas for the various commodities are communicated from the State Secretariat for Procurement and Purchasing of Agricultural Products to the VVEAB's on the provincial level and from them to the VEAB's of the Kreise. The communities of the Kreise are then assigned their share of the quotas. The community as a whole is responsible for the fulfillment of its quota, with specific quotas being assigned to individual farmers. The yearly plan for agriculture prescribes for each farm a minimum cultivation of winter and summer grains, sugar beets, potatoes, and oilseed crops. This measure was necessary because many farmers avoided planting sugar beets and oilseed crops on account of the heavy labor requirements. As a result of this measure, crop rotation on larger farms has not been carried out adequately.

As Table 8\* shows, the farm product delivery quotas per hectare of agriculturally useful land vary directly with the size of the farm.

Harvesting losses, which may vary substantially from year to year depending upon climatic conditions and insect infestation, are

\* Table 8 follows on p. 60.

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Table 8

Delivery Quotas for Selected Agricultural Commodities in Saxony  
by Size of Farm  
1952 209/

Product	Unit per Hectare	Size of Farms (Hectares of Agriculturally Useful Land)						
		2-5	5-10	10-15	15-20	20-35	35-50	Over 50
Grain	Hundred Kilograms	6.0	9.5	13.5	15.0	18.0	20.0	21.0
Potatoes	Hundred Kilograms	45.0	55.0	75.0	90.0	100.0	106.0	111.0
Winter Rape	Hundred Kilograms	8.0	9.5	10.5	11.0	11.5	12.0	12.5
Summer Rape	Hundred Kilograms	3.0	4.0	4.5	5.0	5.5	6.0	6.5
Meat	Kilogram	87.0	108.0	117.0	120.0	123.0	124.0	125.0
Milk <u>a/</u>	Kilogram	486.0	561.0	599.0	615.0	635.0	642.0	671.0
Eggs	Unit	95.0	108.0	116.0	118.0	119.0	120.0	121.0

a. 3.5 percent butterfat.

not taken into account in determining delivery quotas. The plans are drawn up 1 year in advance and make no allowance for uncontrollable factors such as weather. If the peasant cannot fulfill his delivery quota, he is fined or required to deliver the deficit amount the following year. After his quotas have been completely fulfilled, the farmer may sell his remaining production, if any, on the free market. The quotas are often much higher than the production capacity of the land, particularly in the case of the large farms. This has been one of the main reasons for the great influx of farmers into West Germany and into the cities of East Germany, leaving the farmland uncultivated.

Reductions in the 1953 delivery quotas for all crops and animal products were ordered on 25 June 1953 as part of the "new course." 210/ Farms of over 10 hectares received the largest reductions because, as the decree states, "the larger farms were often assessed too much." It remains to be seen whether the reductions are large enough to induce the peasants to increase production. Results in this connection will also depend upon the availability of consumer goods in rural areas.

S-E-C-R-E-TB. Agricultural Production.

East German agriculture is characterized by a system of diversified farming in which grains, potatoes, sugar beets, and livestock are the chief commodities produced. Arable land, including gardens and orchards, totalled about 5.1 million hectares in 1951 compared with approximately 5.3 million hectares before the war. Approximately the same proportion of the arable land was devoted to the production of grains, potatoes, and sugar beets in 1952 as in the period 1935-39. The most significant change has occurred in the increased planting of oilseed crops, which dates from the war years. Table 9\* shows prewar and postwar data on area cultivated, yields, and production of selected crops in East Germany.

In 1952, East Germany's agricultural production as a whole was about 11 percent below the 1938 level.\*\* Population, on the other hand, was about 10 percent greater than in 1939, 211/ and the country also had to feed 400,000 Soviet occupation troops.\*\*\* 212/ Among the major agricultural commodities, only the production of meat and vegetable oils exceeded the 1935-39 average by 1952. Before the war this area was, on balance, self-sufficient in foodstuffs, supplying West Germany with grains, potatoes, and sugar and receiving meats, fats, and dairy products. 213/ As a result of generally lower postwar production in agriculture and increased population, East Germany has become a net importer of foodstuffs. But domestic production and these imports, which for the most part have come from elsewhere in the Soviet Bloc, have not been sufficient to provide an adequate diet for the population.

1. Grains.

The hectareage devoted to grains has gradually increased since the war and in 1952 was approximately 2,835,000 hectares, or 96 percent of the prewar hectareage. Bread grains accounted for 62\*\*\*\*

\* Table 9 follows on p. 62.

\*\*  Throughout this section, the production year for agricultural commodities runs from 1 July to 30 June of the following year.

\*\*\* According to the Soviet-East German Protocol of 23 August 1953, the USSR will in the future supply 75 percent of the food and consumer goods consumed by the Soviet troops.

\*\*\*\* Continued on p. 64.

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Table 9

Area Cultivated, Yield, and Production of Selected Crops in East Germany  
1935-39 Average and 1948-52 a/

Commodity	Years	Area Cultivated (Thousand Hectares)	Yield (Quintals per Hectare)	Production (Thousand Metric Tons)	
Bread Grains	1935-39 Average	1,803	20.6	3,722	
	1948	1,603	18.9	3,025	
	1949	1,651	21.5	3,550	
	1950	1,745	20.6	3,600	
	1951	1,743	20.8	3,623	
	1952	1,750	18.7	3,276	
Coarse Grains	1935-39 Average	1,165	23.8	3,016	b/
	1948	914	17.0	1,810	b/
	1949	924	20.0	1,850	
	1950	949	20.1	2,176	
	1951	1,058	21.8	2,306	
	1952	1,085	20.2	2,191	
Total Grains	1935-39 Average	2,968	21.9	6,738	
	1948	2,517	18.2	4,835	
	1949	2,575	21.0	5,400	
	1950	2,694	20.4	5,776	
	1951	2,801	21.2	5,929	
	1952	2,835	19.3	5,467	
Potatoes	1935-39 Average	809	168.4	14,225	b/
	1948	804	143.7	11,551	
	1949	812	120.0	9,744	
	1950	819	160.0	13,098	
	1951	838	133.0	11,152	
	1952	807	126.0	10,162	
Sugar Beets	1935-39 Average	197	308.6	6,080	(888) c/
	1948	200	229.6	4,583	(680) c/
	1949	202	191.4	3,867	(555) c/
	1950	210	272.9	5,731	(780) c/
	1951	210	280.0	5,880	(750) c/
	1952	210	180.4	3,788	(511) c/
Vegetable Oilseeds	1935-39 Average	215/ 34	13.5	46.0	(20.0) d/
	1948	215/ 139	7.3	101.0	(30.0) d/
	1949	215/ 170	9.5	162.0	(48.6) d/
	1950	174.5 216/	9.7	169.2	e/ (49.2) d/
	1951	180.8 217/	10.1	181.8	e/ (53.1) d/
	1952	181.3 216/	10.0	180.6	e/ (52.3) d/

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Table 9

Area Cultivated, Yield, and Production of Selected Crops in East Germany  
1935-39 Average and 1948-52 a/  
(Continued)

Commodity	Years	Area Cultivated (Thousand Hectares)	Yield (Quintals per Hectare)	Production (Thousand Metric Tons)
Fodder Root Crops	1935-39 Average <u>215/</u>	226	457.2	10,333
	1948 <u>215/</u>	233	252.0	5,872
	1949 <u>215/</u>	230	250.0	4,600
	1950	N.A.	N.A.	N.A.
	1951	273.7 <u>217/</u>	N.A.	N.A.
	1952	274.6 <u>216/</u>	N.A.	N.A.
Legumes	1935-39 Average <u>215/</u>	84	15.0	126
	1948 <u>215/</u>	140	9.6	134
	1949 <u>215/</u>	155	12.0	186
	1950	N.A.	N.A.	N.A.
	1951	N.A.	N.A.	N.A.
	1952	160.5 <u>216/</u>	N.A.	N.A.
Flax (Fiber) <u>218/</u>	1938 <u>f/</u>	14.6	N.A.	N.A.
	1948	22.3	3.2	7.1
	1949	23.0	3.7	8.5
	1950	25.0	3.6	9.0
	1951	26.0	3.6	9.4
	1952	27.8	3.6	9.9
Hemp <u>218/</u>	1935-39 Average	N.A.	N.A.	N.A.
	1948	2.2	4.9	1.1
	1949	3.6	4.9	1.8
	1950	5.0	4.9	2.5
	1951	5.0	4.9	2.5
	1952	5.0	4.9	2.5

- b. Estimate by Department of Agriculture, Foreign Agricultural Service.  
c. Production in terms of raw sugar.  
d. Production in terms of oil.  
e. Estimated.  
f. Includes flax and hemp.

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percent of the hectarage, and coarse grains for 38 percent. Emphasis has recently been placed on increasing the hectarage devoted to coarse grains in order to increase livestock numbers.

Over-all yields of grains have not quite attained prewar levels in any recent year despite the favorable weather conditions in 1949 and 1951. Production of grains, which in 1935-39 averaged 6.5 million tons,\* amounted to 5.9 million tons in 1951 and 5.5 million tons in 1952. Production has been sufficient to supply immediate domestic requirements, but the stockpiling program and occupation requirements have necessitated sizable imports of bread grains and smaller quantities of coarse grains from the USSR and the Satellites since 1949.

Production in 1953 was expected to approximate that of 1952. There should be no serious shortage of bread during the 1953-54 food consumption year unless abnormal quantities of bread grains are placed in state reserves and imports from the USSR fall short of plan.

## 2. Potatoes.

Production of potatoes, on about the same hectarage as in 1935-39, ranged from 9.7 million tons in 1949 to 13.1 million tons in 1950, the latter figure being 500,000 tons less than the prewar average. Production has been adequate for human consumption since 1948, but with the recent increase in the number of swine, insufficient amounts of potatoes have been available for fodder purposes. Potatoes were in short supply for both human and animal consumption during 1952-53 as a result of the poor 1952 harvest. Yield per hectare has been relatively low since the war because of the breaking up of large estates under land reform and the shortage of chemical fertilizers.

## 3. Sugar Beets.

Sugar beet hectarage has recently been a little larger than before the war, but yields have been substantially lower. As a result of drought and adverse harvesting conditions in 1952, to take the most extreme case, the yield was only 180.4 quintals\*\* per hectare compared with the prewar average of 308.6 quintals. The

\* Throughout this report, tonnages are given in metric tons.

\*\* One quintal (or metric centner) equals 0.2 metric tons.

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highest postwar yield, 280 quintals per hectare, was obtained in 1951. Yields of sugar beets have declined for the same reasons as yields of potatoes -- lack of fertilizers and breaking up of large estates into uneconomically small units. Production for 1948-52 averaged about 25 percent less than the annual average for the period from 1935 to 1939. Except in 1952, sugar production has nevertheless met domestic consumption needs and provided an almost equal amount for trade and stockpiling purposes.

4. Vegetable Oilseeds.

The very large increase in the area planted to vegetable oilseeds during the war and immediately thereafter has been maintained in recent years. The area used for oilseeds in 1952 was over 5 times the prewar average of 34,000 hectares. Peasants have expanded acreage of oilseed crops in accordance with government plans because of the favorable prices paid for the commodities and the favorable terms on which oilseeds may be substituted for other crops in fulfilling their quotas.

Prewar yields of oilseed crops have not yet been attained. No significant increases have been recorded since 1949, when yields were 70 percent of the prewar average, and it is not expected that there will be any important increase until more fertilizer and insecticides are available and farmers gain more experience in growing the crops. Production of vegetable oil in 1952 was estimated at approximately 52,000 tons compared with an average of 20,000 tons in 1935-39.

5. Other Crops.

As shown above in Table 9, the hectares devoted to fodder root crops, legumes, flax, and hemp have increased considerably from the prewar levels, the increase for legumes having been particularly large. The government has waged an intensive campaign in the countryside to increase the hectareage in fiber crops. Yields of these crops, especially the fodder root crops, are still below prewar levels.

6. Livestock and Livestock Products.

Livestock losses during the war were very substantial in East Germany. From 1938 to 1946, numbers of livestock declined as

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follows: horses, 20 percent; cattle, 24 percent; cows, 29 percent; swine, 66 percent; and sheep, 58 percent. The recovery of the livestock industry was relatively slow until 1949 because high delivery quotas for grain and potatoes left too little fodder for livestock. Also, farmers' meat and milk delivery quotas were determined on the basis of the number of head of livestock, discouraging any great increase in the number of livestock. Starting in 1949, however, delivery quotas for meat, milk, and eggs were computed on the basis of the agriculturally useful land held by a farmer. As a result, livestock numbers increased rather rapidly and, in 1952 surpassed prewar levels except for horses. (See Table 10.) A shortage of fodder caused a reduction of approximately 20 percent in numbers of swine in 1953 and prevented an increase in other kinds of livestock.

Table 10

Numbers of Livestock in East Germany  
1935-39 Average, 1948-53, and 1955 Plan a/

<u>Year</u>	<u>Thousand Head</u>				
	<u>Horses</u>	<u>Cattle</u>	<u>Swine</u>	<u>Sheep and Goats</u>	<u>Total</u>
1935-39 Average	810	3,577	5,744	2,450	12,581
1948	649	2,783	2,074	1,758	7,264
1949	680	2,879	2,616	2,121	8,296
1950	723	3,310	3,311	2,253	9,597
1951	755	3,598	5,460	2,383	12,196
1952	765	3,741	6,556	2,530	13,592
1953 220/	760	3,740	5,250	2,530	12,280
1955 Plan	725	4,400	7,620	2,680	15,425

50X1

Meat production increased gradually from 1948 to 1951 but did not regain the prewar level until 1952 (see Table 11),\* when excessive slaughtering of swine took place because of the shortage of

\* Table 11 follows on p. 67.

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Table 11

Production of Meat and Animal Fats in East Germany  
1935-39 Average, 1948-52, and 1955 Plan 221/

Year	Thousand Metric Tons			
	Meat <u>a/</u>	Animal Fats		Total
		Butter	Slaughter Fats <u>b/</u>	
1935-39 Average	615	105	140	245
1948	229	45	37	82
1949	264	46	45	91
1950	428	59	41	100
1951	490	62	73	135
1952	619	71	124	195
1955 Plan	1,357	100	245	345

a. Preliminary estimates, which include beef, veal, buffalo, mutton, lamb, goat, and pork but not fat cuts or bacon.

b. Preliminary estimates, which include beef, lamb, mutton, goat, and pork fats.

fodder. Slaughter weights have been consistently below prewar levels for all categories of livestock as a result of the poor fodder base and the delivery quota deadlines established by the government, which have required the peasant to slaughter animals at lighter weights. Production of meat in 1953 is expected to be considerably below that of 1952. As a result of the excessive slaughterings in 1952, it will take two or three years for the farmers to rebuild their herds. Although East Germany has imported meat every year since the war, Soviet occupation requirements and the stockpiling program have decreased the per capita consumption of meat to less than the prewar amount.

Despite the excessive slaughtering of livestock in 1952, production of slaughter fats was only about 90 percent of the prewar output. (See Table 11.) Moreover, butter production was only 68 percent of the 1935-39 average. Since 1951, numbers of cattle have been higher than before the war, but the milk yield per cow has remained lower. The reduced milk yields indicate cows of lower

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quality than before the war, inadequate feed, and the use of milk cows for draft power on small farms. No improvement in these factors is expected in the near future. While animal fats have been imported, per capita consumption continues to be less than in the prewar period.

The greatest problem confronting East Germany in the field of agriculture is increasing the output of animal products. A reduction in the delivery quotas for potatoes, feed grains, and meat was announced by the government in June 1953 as an incentive to the farmer to increase his livestock numbers. The shortage of animal products has had a serious effect upon worker morale because the Germans have normally eaten large quantities of meat in peacetime.

C. Five Year Plan for Agriculture.

The East German Five Year Plan calls for considerable increases in agricultural production. (See Table 12.)\* The goals of the Five Year Plan for crops may be achieved, in view of the prewar performance in this sector and the expansion of yields in West German agriculture by amounts greater than those required by the East German Plan. 222/ The projected increase in production of field crops is to be achieved by slightly enlarging the hectareage and substantially raising yields per hectare. The target for grains and legumes in 1955 is 25 quintals per hectare compared with 21.9 quintals in 1935-39 and 19.3 quintals in 1952.

Fulfillment of the Five Year Plan will depend primarily upon adequate supplies of fertilizers and upon achieving peace and stability in the agricultural community. Supplies of phosphates have been especially inadequate, but with the cessation of reparations deliveries East Germany should be able to import more. It also may be possible to expand domestic production of fertilizers. The planned supplies of the major fertilizers in 1955, as percentages of 1950 supplies, are as follows: nitrogen 108, superphosphates 161, potash 134, and lime 141.

The goals for animal products very probably will not be realized, because of the abnormal slaughter of livestock in 1952.

\* Table 12 follows on p. 69.

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Table 12

Production of Selected Agricultural Commodities in East Germany  
Annual Average Postwar Peak, 1952, and 1955 Plan 223/

	Thousand Metric Tons <u>a/</u>			
	<u>Annual Average Postwar Peak</u>	<u>1952</u>	<u>1955 Plan</u>	<u>1955 Plan as Percent of Prewar</u>
<b>Crops</b>				
Grain and Legumes	6,129 <u>b/</u>	5,647	2,313	107
Oilseeds	182 <u>b/</u>	181	279	607
Potatoes	13,098 <u>c/</u>	10,162	17,507	123
Sugar Beets	5,880 <u>b/</u>	3,788	6,804	112
<b>Animal Products</b>				
Meat	619 <u>d/</u>	619	1,357	221
Milk	N.A.	N.A.	6,772	124
Eggs (1,000 Eggs)	N.A.	N.A.	1,980	153
Butter	71 <u>d/</u>	71	100	95
Slaughter Fats	124 <u>d/</u>	124	245	175

a. Unless otherwise indicated.

b. 1951.

c. 1950.

d. 1952.

D. State Reserves of Foodstuffs.

Relatively large quantities of food have been placed in state reserves in East Germany. These stockpiles of foodstuffs are for emergency use in time of war or in case of natural calamities such as droughts and floods, transportation dislocations, or other supply difficulties. Since the summer of 1952, much emphasis has been given to stockpiling material reserves for the national army.

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The rough estimates shown in Table 13 give some indication of the magnitude of stockpiles as of June 1953 and of those planned for 1955.

Table 13

Stockpiles of Agricultural Commodities  
in East Germany  
June 1953 and 1955 Plan

	Thousand Metric Tons	
	June 1953 <u>a/</u>	1955 Plan
Grain <u>b/</u>	827.8	750
Meat	110.0	110
Vegetable Oils	18.6	N.A.
Animal Fats	25.0	N.A. <u>c/</u>
Sugar	203.5	200

a. After June 1953, sizable amounts were released from the state reserves as a part of the "new course."

b. Some of the grain is stored in the form of flour.

c. The figure for butter only is 14,000 tons.

These commodities are stored in warehouses controlled by the People's Police, warehouses of the various ministries, special installations for the storage of material reserves, and in installations of the wholesale trade agencies (DHZ's). Practically all of the refrigerated storage space not requisitioned by the Soviet authorities has been taken over for the state reserves. Additional facilities are being built as fast as materials and financing are available.

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When the Kremlin stopped the removal of capital equipment in 1948, East German industrial capacity was at less than 50 percent of the prewar level. 224/ In mid-1948 the SED announced the Plan for 1948 and the Two Year Plan for 1949-50. This was the first public mention of either an annual economic plan or a long-term plan. The Two Year Plan declared that by 1950 industrial production was to reach 81 percent of 1936 and 135 percent of 1947. To facilitate this planned increase in production, the USSR reduced reparations deliveries somewhat and stopped dismantling altogether. It was announced in January 1950 that the Two Year Plan would be fulfilled in 18 months instead of 24. 225/ Industrial production in East Germany revived rapidly after 1948, though at a somewhat lower rate than in West Germany. It is estimated that East German industrial production (1938 = 100) rose from 35 percent in 1948 to 54 percent in 1950 and 81 percent in 1952.\* West German indexes of industrial production for the same years were 52, 94, and 121 percent of 1938, respectively. 226/

Both parts of Germany had a currency reform in 1948, but there the similarity in bases of recovery ends. West Germany received large amounts of free food and raw materials from GARIOA\*\* and Marshall Plan aid and gradually removed wartime and postwar restrictions on the economy. East Germany, however, continued to pay heavy reparations, which reduced the amount of goods available for export and correspondingly reduced the ability of import raw materials and industrial equipment. Restrictions on interzonal trade imposed by both the USSR and the Western Allies worked more to the disadvantage of East than West Germany. Moreover, poor planning by the East German authorities made for inefficient use of resources.

The indexes of industrial production compiled by ORR, shown in Table 14,\*\*\* indicate a somewhat greater increase in over-all

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\* Estimated.

\*\* Government and Relief in Occupied Areas -- a part of the title of the US law appropriating funds to be used by the US Armed Forces for this purpose.

\*\*\* Table 14 follows on p. 72.

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Table 14

Indexes of Industrial Production in East Germany  
1938 and 1948-53

1950 = 100

<u>Total</u>	<u>1938</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
Total Industry	185	64	79	100	125	149	166
Producer Goods	201	61	77	100	126	158	180
Consumer Goods	155	69	85	100	122	132	140
Energy	94	75	84	100	112	120	129
Electric Power	95	81	92	100	113	124	135
Solid Fuels	81	74	81	100	110	115	122
POL	N.A.	65	82	100	125	144	155
Metals	240	43	66	100	117	184	224
Machinery and Equipment	279	52	74	100	142	184	211
Shipbuilding	29	6	62	100	134	171	191
Bearings	N.A.	51	65	100	137	174	221
Automotive Equipment	N.A.	N.A.	N.A.	100	203	297	340
Electrical Equipment	N.A.	56	78	100	124	147	169
Agricultural Machinery	308	54	77	100	115	138	154
Railway Equipment	N.A.	36	65	100	107	125	154
Metalworking Machines	332	74	87	100	113	132	150
Machine Tools	262	58	69	100	119	135	152
Chemicals	96	63	81	100	121	137	149
Building Materials	183	48	73	100	113	123	161
Forestry Products	104	126	95	100	100	97	98
Food-Processing	124	77	77	100	108	117	105
Light and Textile	173	62	88	100	128	137	152

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industrial production in recent years than that claimed by the East German authorities. For instance, ORR shows total industrial production in 1953 to have been 66 percent higher than in 1950 -- East German authorities claim an increase of 59 percent. 227/ Even the lower of the two values represents an impressive achievement, particularly in view of the handicaps under which the economy has operated. The ORR indexes also tend to bear out the East German claim that on an over-all basis the goals of the Five Year Plan have been fulfilled.

The East German Five Year Plan (1951-55) requires the gross value of industrial production (excluding handicrafts) to increase from DME 23.4 billion in 1950 to DME 45 billion in 1955, a total increase of 92.3 percent, or an average annual increase of 13.7 percent.\* 228/ Explicit in the Plan are the following aims: (1) independence of East Germany from Western capitalistic countries for supplies of basic materials, (2) great expansion of basic and heavy machine industries, and (3) considerable reduction in the scope of private enterprise.

Over the 5-year period the original Plan allocated DME 28.6 billion to net investment, of which DME 5.8 billion were to be for residential and cultural buildings. 229/ This represents an average of DME 5.7 billion a year, on the average less than 15 percent of GNP. On the surface this would not appear to be an excessive rate of investment and might well be sufficient to provide the industrial basis for the planned increases in production. Nevertheless, the investment plan has not been announced as fulfilled in any of the first 10 quarters of the Five Year Plan, and a reduction in the rate of investment has been announced as a part of the "new course."

Four principal factors contributed to the failure of the investment plan: (1) the kind of investment attempted, (2) inadequate and incorrect planning, (3) reparations and other uncompensated deliveries, and (4) curbs on interzonal trade. Under the Five Year Plan, investment has been concentrated in a relatively few key projects in the basic materials industries and in the heavy

\* This is a lower rate of increase than implied by the planned rates of increase in the production of the nationalized firms and private firms (see p. 22, above). Such apparent inconsistencies are not uncommon in published East German accounts of both plans and achievement.

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machine building industry. Investment and even replacement have been neglected in other industries, including transportation. East Germany has relatively few technicians well trained for building an iron and steel industry or a heavy machine construction industry. Consequently, many serious mistakes were made in plans, and the plans were never completed on time. Political considerations often interfered, with disastrous results. The premature firing of the first blast furnace at the Stalin Kombinat (formerly the Iron and Steel Combine East) is an example perhaps extreme in its results but typical in origin. In order to have the firing coincide with the anniversary of the October Revolution, the furnace was fired before the equipment had been adequately tested. The blowers broke down and the charge solidified, causing great damage to the furnace. Reparations deliveries and some other forms of uncompensated deliveries had a greater adverse effect on the investment program than their total value in relation to GNP (about 5 to 8 percent, excluding occupation costs\*) would indicate, because the bulk of reparations deliveries in recent years have been products of the machine industry, especially the heavy machine and electroengineering industries. Products of these industries were especially needed for the investment program. Similarly, the restrictions on interzonal trade deprived East Germany of iron and steel and equipment needed for the investment program.

Although the gross production plans were announced as fulfilled every year until the first quarter of 1953, in each year the nonfulfillment of production plans for a number of important products was announced. In 1952 these were bituminous coal and heavy machinery. 230/ In 1951, building materials, crude steel, rolling mill products from nonferrous metals, metallurgical equipment, and some chemicals were among the products whose production plans were not fulfilled. 231/ In the first and second quarters of 1953 the following products were among those whose production plans were not fulfilled: electric power, coal, copper ore, copper, power machine construction, steam turbines, revolving lathes, freight cars, trucks, electric generators, sulfuric acid, various textiles, and food products. 232/ The investment plan of the nationalized industry for the first quarter of 1953 was announced as being "by far not fulfilled," although a substantial increase over the preceding year was shown. The nonfulfillment of the investment plan meant that a great many projects were only partially completed, thus tying up materials and labor without

\* Based on a GNP estimate of about DME 42.7 billion in 1952 and the reparations estimates, I, A, 3, above.

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achieving the planned increases in capacity. At the same time, the shortage of materials resulted in an underutilization of capacity in some industries.

Leaders of the SED have emphasized that the changes in the production and investment plans under the "new course" are designed to eliminate "disproportions" in the economy and to bring the speed of "socialist construction" into line with existing economic capacities as well as to improve the scale of living. Ulbricht in a speech before the Central Committee of the SED on 19 September said: "The ministries and administrative authorities ... as well as the enterprises and various organizations of the GDR must be guided above all by the principle that existing capacities must be fully utilized so that investment funds may be used in particular for the expansion and reconstruction of enterprises actually in operation. This will make it possible to increase production at a lower cost and within a shorter time to the extent necessary to meet the requirements of the people and the economy." 233/ The announced changes in plans bear out this general statement of policy.

In discussing the revised plan for the second half of 1953, Bruno Leuschner, Chairman of the State Planning Commission, stated that the revised figures for total volume of gross production were not substantially different from those in the original plan. 234/ Grotewohl revealed that for the entire year the plan was to be changed, so that heavy industry would produce DME 1.4 billion less, while the light industries and foodstuffs industries would produce DME 950 million more. 235/ According to the resolution of the Central Committee of the SED, heavy industrial production in 1953 as compared with 1952 was to rise 5.5 to 6 percent instead of the originally planned 13 percent, and light industrial production was to increase by 10 percent instead of 7.1 percent. 236/

According to Grotewohl, planned investments in 1953 had been reduced by DME 1.7 billion from the amount in the original plan. However, expenditures for housing, construction of highways, and social facilities were to be increased by DME 670 million, giving a net reduction of DME 1,030 billion. 237/ No firm figures are available on the original investment plan. The reported figures for total investment range all the way from DME 4.9 billion to DME 6.5 billion. 238/ If the higher figure is authentic, it probably contains planned investments for armaments and military construction, which are not shown in the official economic plan and which have been

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reported to be DME 1.6 billion for the year mid-1952 through mid-1953. 239/ Since investments in light industry and in power and coal mining are not to be reduced, and since it is unlikely that the entire reduction could come out of investment in heavy industry, which in Communist planning terminology includes replacements, it appears that a part of the reduction probably will take place in military investment, such as investments for armaments and military construction.

In 1953 and 1954, originally planned investment will be reduced by DME 2 billion each year. The reduction is to affect primarily the metallurgical, ore mining, and heavy machine construction industries, while investment in industries producing consumers' goods, power, and coal, as well as in the MTS's and the state-owned farms, is to be further expanded. 240/ Grotewohl stated that in 1954 retail turnover, measured in 1953 prices, would increase by DME 4.5 billion as compared with the revised plan for 1953. Taking into account the additive role of excise taxes and distributors' margins in retail price formation, it seems that this increase in turnover is quite possible, if investments are reduced as planned. Capacity for production of consumers' goods in light industry has not been fully utilized in the postwar period or has been partially diverted toward production of investment goods. The changes in the investment program for 1945-55 should make available additional materials for the expanded production of consumers' goods.

B. Mining and Metallurgy.

1. Coal Mining.\*

a. Administration.

For administrative purposes, the East German coal industry was divided into two parts after World War II. One part, consisting of eight enterprises (SAG's), was controlled directly by Soviet personnel and operated for Soviet purposes. 241/ The

\* In this report the terms "hard coal" and "brown coal" are used for the two main categories of coal produced in East Germany. "Hard coal" is used as the equivalent of the German word Steinkohle and includes all ranks of anthracite and bituminous coal. "Brown coal" is a literal translation of the German word Braunkohle and includes all ranks of lignite and brown coal.

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other segment of the industry was nationalized and placed under the Soviet Military Administration's Central Administration for the Fuel Industry.

Like all other socialized industries, the state-owned segment of the coal industry became subordinate to the newly formed DWK in 1948. In 1949, with the establishment of the German Democratic Republic and its various ministries, the nationalized enterprises came under the Main Administration for Coal in the Ministry of Heavy Industry. This Administration comprised eight brown coal divisions (Borna, Meuselwitz, Merseburg, Bitterfeld, Magdeburg, Mueckenberg, Senftenberg, and Welzow), one hard coal division named Zwickau; and the Federation of People's Enterprises for the Construction of Equipment and Shaft Installations for the Coal Industry (GESKO). 242/ The coal-producing divisions are known as VVB's (Vereinigungen Volkseigener Betriebe, or Associations of People's-Owned Enterprises). Early in 1952, an administrative reorganization divided the Ministry of Heavy Industry into a Ministry for Smelting and three State Secretariats. Under this reorganization the State Secretariat for Coal and Energy replaced the Main Administration for Coal. 243/

In 1948, the 8 SAG groups, known as SAG's Brikett, Toplivo, Buryy-Ugol', Kar'yer, Smola, Rasres, Bagger, and Maslo, consisted of 12 coal-producing combines with central headquarters located at Espenhain, Boehlen, Borna, Deutzen, Salzdetfurt, Nachterstedt, Deuben, Pfaennerthall, Golzow, Friedland, Golpa, and Profen. They produced one-third of the total brown coal output. 244/ By 1951, these 12 combines had been consolidated or reduced to eight combines under SAG Brikett, which accounted for approximately one-fourth of total brown coal production, 245/ and on 1 May 1952, seven of the combines were nominally returned to German management. 246/ Only the Espenhain combine remained under Soviet control. It was associated with SAG Synthese, which produced synthetic liquid fuel, until both were returned to German ownership on 1 January 1954.

b. Economic Planning and Feasibility of Plans.

Since 1949, production plans for the coal industry in East Germany have been originated by the State Planning Commission and implemented by the Main Administration for Coal in the Ministry of Heavy Industry (1949-52) or the State Secretariat for Coal and

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Energy (1952-53). Planned production for individual combines of the nationalized segment of the industry was given in the "Long Range Plan for Coal Production, 1949-1955" for the years 1949 through 1955. 247/ This plan applies only to the brown coal industry. Detailed production plans for the SAG group of brown coal combines are not available.

A steady decrease in output of hard coal is planned through 1955 because of the expected exhaustion of deposits. However, this decline was not contemplated in the earliest plan available for this industry, which aimed at a goal higher than the level achieved before World War II. The new plan is the result of a series of revisions which recognize the difficulty of expanding and modernizing the productive mines and the failure of new mining projects. Table 15\* demonstrates how production of hard coal in recent years brought about a modification of the 1955 goal. Late in 1953 production goals were reported to have been revised upward again.

In spite of the serious postwar slump in brown coal production as a result of dismantling and neglect of machinery, the October 1951 version of the Five Year Plan provided for a production of brown coal in 1955 almost double that of 1948 -- 205.1 million tons in 1955 compared with 110 million tons in 1948. Production exceeding planned goals in 1949 and 1950 suggested that even greater increases could be expected. Accordingly, in 1951, planned production for 1952, 1953, and 1955 was revised upwards, as shown in Table 16.\*\*

c. Production.

Since World War II, hard coal production in East Germany has been insufficient to fill the industrial requirements of the area, although some gains in production were made in the first five years following the war. The postwar low of 2 million tons in 1945 was surpassed in 1946 by 500,000 tons. 270/ Small gains also were made in 1947 and 1948, but not until 1949 when the output was 3 million tons, was the World War II peak of 2.9 million tons exceeded. Three new shafts for hard coal mining were developed, 271/ but the increase thus obtained was only 136,000 tons in 1950. 272/

\* Table 15 follows on p. 79.

\*\* Table 16 follows on p. 80.



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Table 15

Planned and Actual Production of Hard Coal  
in East Germany  
1949-55

Thousand Metric Tons			
<u>Year</u>	<u>Planned Production Original</u>	<u>Actual Production</u>	<u>Planned Production Revised</u>
1949	2,850 <u>a/</u>	3,019 <u>b/</u>	
1950	3,300 <u>c/</u>	2,807 <u>d/</u>	
1951	4,000 <u>e/</u>	3,200 <u>f/</u>	
1952	3,565 <u>g/</u>	2,850 <u>h/</u>	3,274 <u>i/</u>
1953	3,350 <u>j/</u>	3,000 <u>k/</u>	3,231 <u>l/</u>
1954		3,200 <u>m/</u>	3,221 <u>l/</u>
1955	4,000 <u>l/</u>	3,300 <u>m/</u>	3,150 <u>l/</u>

a.	<u>248/</u>	h.	<u>255/</u>
b.	<u>249/</u>	i.	<u>256/</u>
c.	<u>250/</u>	j.	<u>257/</u>
d.	<u>251/</u>	k.	<u>258/</u>
e.	<u>252/</u>	l.	<u>259/</u>
f.	<u>253/</u>	m.	Estimated.
g.	<u>254/</u>		

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Table 16

Planned and Actual Production of Brown Coal  
in East Germany  
1949-55

Million Metric Tons

<u>Year</u>	<u>Two Year Plan <u>260/</u></u>	<u>Actual Production</u>	<u>Five Year Plan <u>261/</u></u>	<u>Actual Production</u>	<u>Revised Five Year Plan</u>
1949	117.0	124.4 <u>262/</u>	122.9		
1950	122.5	137.5 <u>263/</u>	128.2		
1951			132.6	155.6 <u>264/</u>	
1952			138.4	171.4 <u>265/</u>	171.4 <u>266/</u>
1953			152.1	153.5 <u>267/</u>	174.5 <u>268/</u>
1954			183.6		N.A.
1955			205.1		225.0 <u>269/</u>

In June 1950 it was determined that only through further expansion and reorganization and the acquisition of new equipment could production goals of 3.3 million tons for that year and 4 million tons in 1951 be reached. 273/ Among the urgently required new equipment and installations were emergency haulage cables, signal installations, 1,813 mine cars, boilers for power and steam generation, and a high-tension power line. Actual production for 1950 (2.8 million tons) and 1951 (3.2 million tons) was below the planned amounts, indicating that these items were not procured. Production in 1952 of only 2.9 million tons, 274/ compared with the revised goal of 3.3 million tons, points to exhaustion of the mines and deterioration of equipment. Another limiting factor was the increasing shortage of skilled labor because of the higher wages paid at the uranium mines.

Brown coal output in East Germany has increased each year since the war, except in 1947. However, 83 million tons of production in 1945\* was the lowest figure since 1936. The wartime peak of 169 million tons 275/ was not surpassed until 1952, when 171.4 million tons are estimated to have been mined. 276/ This rather phenomenal revival of brown coal production has been achieved in

\* US Bureau of Mines estimate.

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spite of the dismantled condition of the industry. 277/ It resulted largely because unfulfilled requirements for production equipment were overcome by increased amounts of labor, not necessarily skilled. 278/ East German production of hard coal and brown coal from 1936 to 1952 is presented in Table 17.

Table 17

Production of Hard Coal and Brown Coal  
in East Germany  
1936-53

Thousand Metric Tons		
<u>Year</u>	<u>Hard Coal</u>	<u>Brown Coal</u>
1936 <u>279/</u>	3,523	101,056
1937 <u>280/</u>	3,694	114,300 <u>a/</u>
1938 <u>281/</u>	3,513	119,647
1939 <u>a/</u>	3,300	145,000
1940 <u>282/</u>	2,934	168,716
1941 <u>a/</u>	2,950	167,000
1942 <u>a/</u>	2,925	166,000
1943 <u>283/</u>	2,820	165,101
1944 <u>a/</u>	2,500	150,000
1945	2,000 <u>a/</u>	83,000 <u>b/</u>
1946 <u>284/</u>	2,513	109,796
1947	2,753	101,713
1948	2,848	110,863
1949	3,019	124,480
1950	2,807	137,510
1951	3,200 <u>285/</u>	155,626 <u>286/</u>
1952	2,850 <u>287/</u>	171,400 <u>288/</u>
1953	3,000 <u>289/</u>	153,500 <u>290/</u>

a. Estimated.

b. US Bureau of Mines estimate.

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S-E-C-R-E-Td. Consumption.

In spite of concerted efforts to convert industries consuming hard coal to the use of brown coal, results have not been completely successful, particularly with regard to railroads and electric power plants. Hard coal use in household heating and by nonessential industries has been curtailed. Railroads and electric power, manufactured gas, and metallurgical coke plants have received the greater part of the available hard coal. In 1952, electric power plants received 27 percent of the total supply compared with 20 percent in 1947, and gasworks received 45 percent in 1952 compared with 25 percent in 1947. The estimated amount received by the coke plants, whose capacity changed little during the period, decreased from 7 percent of the total supply in 1947 to about 5.1 percent in 1952.

The most important consumer of raw brown coal is the briquette industry, which received about 65 percent of total raw brown coal supplies in the years 1947-52. The proportion of total supplies used by other consumers changed as follows from 1947 to 1952: electric power plants, 29 to 33 percent; chemicals industry, 0.2 to 1.2 percent; gasworks, 0.1 to 0.7 percent; transportation, 16 to 0.3 percent; and other users 5.1 to 11.3 percent. The decline in the use of raw brown coal in power generation and transportation indicates some substitution of brown coal briquettes and hard coal, which are more suitable for these purposes. In 1952, 15 percent of total briquette production for domestic use was consumed by the railroads, 11 percent by electric power plants, 32 percent by synthetic fuel plants, 34 percent by the commercial and industrial enterprises, and the remaining 7 percent by households.

Detailed information on supplies and consumption of hard coal and brown coal is presented in Tables 18 and 19.\*

e. Stocks.

There has been little or no accumulation of coal stocks in East Germany since World War II, because of the extreme shortage of hard coal, the poor storage qualities of brown coal, and the inability of the transportation facilities to supply the\*\*

\* Tables 18 and 19 follow on pp. 83 and 85, respectively.

\*\* Continued on p. 88.

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Table 18

Supply and Distribution of Hard Coal in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

	Thousand Metric Tons					
	Average for 1935-38	1948	1950	1951	1952	1955 Plan
<u>Supply</u>						
Production	3,547 <u>292/</u>	2,848 <u>293/</u>	2,807 <u>294/</u>	3,200 <u>295/</u>	2,850 <u>296/</u>	3,500
Imports <u>297/</u>	11,953	2,020	3,973	3,564	3,986	3,500
<u>Distribution</u>						
Exports	0	0	0	0	0	0
Uncompensated Deliveries	0	N.A.	N.A.	N.A.	N.A.	45
Reparations	0	N.A.	N.A.	N.A.	N.A.	45
Occupation Costs	0	N.A.	N.A.	N.A.	N.A.	N.A.
Domestic Consumption <u>a/</u> *	15,500	4,868	6,780	6,764	6,680	6,955
Railroad <u>298/</u>	N.A.	430	800	1,036 <u>b/</u>	635 <u>b/</u>	
Inland Water	N.A.	64 <u>300/</u>	68 <u>d/</u>	67 <u>d/</u>	66 <u>d/</u>	
Electric Power	N.A.	1,046 <u>e/</u>	1,650 <u>e/</u>	1,850 <u>e/</u>	1,803 <u>e/</u>	
Gasworks <u>f/</u>	N.A.	1,271	2,196	2,526	3,064	
High-Temperature Coke <u>g/</u>	N.A.	302	329	344	347	
Other Industry <u>h/</u>	N.A.	1,755	1,737	1,177	765	
<u>Stocks</u>						
Operational	N.A.	N.A.	N.A.	N.A.	N.A.	0
Stockpiles	N.A.	N.A.	N.A.	N.A.	N.A.	349

\* Footnotes for Table 18 follow on p. 84.

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Table 18

Supply and Distribution of Hard Coal in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

- 
- a. Balancing figures. Uncompensated deliveries are believed to be negligible in amount.  
b. Estimate based on average daily consumption figures.  
c. The GDR Five Year Plan, 1951-55, 299/ does not furnish a consumption breakdown in so detailed a form as the one employed in this table. It does, however, give the following allocations:

Industrial Production	6,146,000 Tons
SAG's	780,000 Tons
VEB (Z)'s	5,123,000 Tons
Agriculture	30,000 Tons
Transportation	400,000 Tons
Other Uses	5,000 Tons
Consumer Goods	25,000 Tons

- d. Estimate based on past performance.  
e. Estimate based on consumption by electric power stations of 20 percent of total coal available in 1947 and 23.3 percent in 1949. 301/  
f. Input of hard coal in the manufacture of gas is based on a conversion factor of 350m<sup>3</sup> gas per ton of hard coal and the following percentage of total gas from plants based on hard coal: 1948 -- 55 percent (or 444,807 million m<sup>3</sup>); 1950 -- 55 percent (or 768,570 million m<sup>3</sup>); 1951 -- 55 percent (or 883,960 million m<sup>3</sup>); 1952 -- 55 percent (or 1,072,500 million m<sup>3</sup>). 302/  
g. Coal input for the production of high-temperature coke is derived from the production of coke and a percentage yield basis as follows: 1948 -- coke yield of 67 percent of coal input, coke production of 227,000 tons 303/; 1950-52 -- coke yield of 75 percent of coal input, coke production of 1950: 254,000 tons 304/; 1951 -- 262,000 tons (estimate); 1952 -- 264,000 tons (estimate).  
h. A residual figure including the synthetic rubber, carbide, and other industries.

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Table 19

Supply and Distribution of Brown Coal in East Germany  
1936-38 Average, 1948, 1950-52, and 1955 Plan

	Thousand Metric Tons					
	Average for 1936-38	1948	1950	1951	1952	1955 Plan <u>305/</u>
<u>Supply</u>						
Production <u>306/</u>	111,666	110,863	137,510	155,626	171,400 <u>a/</u>	225,255
Imports	5,286 <u>a/*</u>	5,781 <u>307/</u>	5,805 <u>308/</u>	5,686 <u>309/</u>	4,442 <u>a/ 310/</u>	5,900
<u>Distribution</u>						
Exports (as Briquettes)	N.A.	4,529 <u>b/ 311/</u>	9,721 <u>b/ 312/</u>	4,789 <u>b/ 313/</u>	6,292 <u>a/ b/ 314/</u>	9,880 <u>b/</u>
Uncompensated Deliveries	0	N.A.	N.A.	N.A.	N.A.	14
Reparations	0	N.A.	N.A.	N.A.	N.A.	14
Occupation Costs	0	N.A.	N.A.	N.A.	N.A.	0
Domestic Consumption <u>c/</u>	116,952	112,115	133,594	156,523	176,230	221,261
Briquette Plants for Briquettes Consumed						
Domestically <u>d/</u>	N.A.	74,367.8	90,353.4	102,787.8	108,814.8	148,148.0 <u>e/</u>
Inland Water Transport	N.A.	100 <u>f/</u>	93 <u>316/</u>	90 <u>f/</u>	90 <u>f/</u>	
Railroads	N.A.	480 <u>318/</u>	400 <u>h/</u>	385 <u>i/</u>	440 <u>i/</u>	
Electric Power	N.A.	31,000 <u>a/</u>	33,900 <u>j/</u>	38,200 <u>j/</u>	42,521 <u>j/</u>	
Gasworks <u>k/</u>	N.A.	512	931	1,071	1,180	
Chemical Industry	N.A.	1,000 <u>a/</u>	1,500 <u>a/</u>	2,000 <u>324/</u>	2,300 <u>a/</u>	
Other Uses <u>l/</u>	N.A.	4,655	6,417	11,989	6,409	
<u>Stocks</u>						
Operational	N.A.	N.A.	N.A.	N.A.	N.A.	0
Stockpiles	N.A.	N.A.	N.A.	N.A.	N.A.	0

\* Footnotes for Table 19 follow on p. 86.

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Table 19

Supply and Distribution of Brown Coal in East Germany  
1936-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

- a. Estimated.
- b. Export figures are derived by considering brown coal briquette exports as ultimate brown coal exports. In this case the brown coal briquette export quantities have been multiplied by 2.6 (the estimated number of tons of coal required for one ton of brown coal briquettes).
- c. Balancing figures. Uncompensated deliveries are believed to be negligible in amount.
- d. Brown coal allocations to the brown coal briquette industry are estimated for 1948, 1950-52, and 1955 on the basis of known, estimated, and planned brown coal briquette production and an estimated requirement of 2.6 tons of raw brown coal for every ton of briquettes. Total brown coal input capacities of briquetting plants equal these values plus those shown for exports. Since the other details under "Domestic Consumption" apply only to raw brown coal, it should be noted that substantial quantities of these briquettes are consumed by railroads, electric power plants, and other industries listed separately.
- e. Brown coal input to the brown coal briquette industry for 1955 is estimated at 2.6 times the planned brown coal briquette production of 60,780,000 tons.
- f. Estimate based on actual consumption in 1949 and 1950. 315/
- g. The East German Five Year Plan, 1951-55, 317/ does not furnish a consumption breakdown in so detailed a form as the one employed in this table. It does, however, give the following allocations:

Industrial Production	227,490,000 Tons
SAG's	78,000,000 Tons
VEB (Z)'s	145,000,000 Tons
Agriculture	500,000 Tons
Transportation	600,000 Tons
Other Uses	1,550,000 Tons
Consumer Goods	1,000,000 Tons

- h. Estimate (interpolated).
- i. Estimate based on daily average consumption by railroads of 1,054 tons of brown coal in 1951 and 1,210 tons in 1952.
- j. Estimate based on 1949 consumption of 30,000,000 tons of coal by electric power plant. 319/



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Table 19

Supply and Distribution of Brown Coal in East Germany  
1936-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

k. Estimated on the basis of 19 and 19.6 percent of all manufactured gas produced from brown coal in 1947 and 1949, respectively, at a rate of 300 m<sup>3</sup> of gas to one ton of brown coal 320/; for the years 1950-52 20 percent of total gas production has been used. Total gas produced in

1948	808,741,000 Cubic Meters (estimate)
1950	1,397,400,000 Cubic Meters <u>321</u> /
1951	1,607,000,000 Cubic Meters <u>322</u> /
1952	1,950,000,000 Cubic Meters <u>323</u> /

l. Residual figure which shows a sharp rate of increase in 1951 and 1952 due to the increased availability of brown coal and decreased availability of hard coal.

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consuming industries with anything but their most urgent day-to-day needs.

Most of the available data concern the Reichsbahn stocks. These show a seasonal decrease in winter and increase in summer. Shortages of hard coal during the summer of 1952 325/ caused the Soviet authorities to order the Reichsbahn directorate to accumulate 480,000 tons each of brown coal briquettes and hard coal by 31 December 1952. 326/ This was believed to be adequate for 60 days of railroad operation. The latest information concerning railroad stocks indicated only 11 days of supply as of August 1953. 327/

The extent of planned state reserves prior to late 1952 is unavailable. At that time, it was reported that the state reserve of 280,000 tons was 87,000 tons below the plan, implying a planned amount of 367,000 tons. By April 1953 the reserve had dwindled to 50,000 tons, mainly as a result of railroad requirements. 328/ The plan now calls for a total state reserve by 31 December 1953 of 300,000 tons. This will be possible only if Polish coal deliveries regularly amount to 50,000 tons a month from May to December.

f. Reserves.

(1) Hard Coal. 329/

Hard coal reserves in the Zwickau Basin were estimated by the East German coal administration as 12,639,000 tons as of 1 January 1951. At an average annual production of over 1 million tons, it is estimated that these reserves will last until 1960. The coal-bearing strata are about 400 meters thick and contain about 11 coal beds which average 2 or more meters in thickness. The principal bed ranges from 6 to 15 meters in thickness. The most serious drawback of this deposit is the limitation of the economical mining area by an extreme condition of faulting. Over 100 faults have been found in the coal beds.

Reserves of the Lugau-Oelsnitz Basin were given by the coal administration as 10,384,000 tons as of 1 January 1951. There are 8 coal seams of an average thickness of 12 meters in an over-all formation 150 meters thick. The seams run together and separate and are quite irregular in thickness. The productive area is limited by frequent geological faults.

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The Freital Basin, about 4 miles southwest of Dresden, is a productive area of not more than 25 square kilometers. The coal seam being exploited at present averages from 2 to 4 meters in thickness, occasionally becoming as thick as 9 meters. Below this seam there are believed to be 3 to 6 other beds, regarded as unworkable. There is only one major fault in the basin. In 1951, reserves in this basin were estimated at only 173,000 tons and it is believed that the areas presently being mined are nearing exhaustion. A new shaft has been sunk in the vicinity of Gittersee, where reserves were estimated in 1951 at 330,000 tons.

A new coal deposit is currently being developed northeast of the lower Saxony hard coal basin, in the vicinity of Doberlug-Kirchhain, in the province of Brandenburg. The few reports upon the nature and extent of this deposit are at variance. The most optimistic report claims reserves of 65 million tons composed of 5 coal strata from 60 centimeters to 2 meters in thickness and from 7.5 to 8 kilometers in length. Another report claims that only poor-quality coal was discovered, and that the high extraction cost would make mining impracticable. Additional problems are caused by the necessity of freezing the 160-meter cover because of its high water content, in order to sink a shaft.

It is estimated that East German reserves of hard coal, without those of Doberlug-Kirchhain, will last for 10 years at the present rate of production.

(2) Brown Coal. 330/

The three brown coal producing areas in East Germany in order of importance are the Lausitz Field, the Thuringen-Sachsen Field, and the Braunschweig-Magdeburg Field. The qualities of the coals in the Lausitz Field range from those with a moisture content of 46 percent and a heat value of 2,500 kilocalories per kilogram to those with a moisture content of 58 percent and a heat value of 1,800 calories per kilogram. Almost all coal from the Senftenberg and Goerlitz Districts of the Lausitz Field is made into briquettes in order to lower the moisture content. Coal from the Forst District of the Lausitz Field is very soft and friable and low in bitumens and therefore used largely in its raw state. The Lausitz Field in 1947 contained an estimated 10.4 billion tons of brown coal, which is over half of the estimated reserves at that time.

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The Thuringen-Sachsen Field is located around the cities of Halle and Leipzig and consists of 7 districts, the most important of which are the Weissenfels-Zeitz, the Meuselwitz-Rositz, and the Northwest Saxony basins. Coal from the Thuringen-Sachsen Field is used extensively in the synthetic fuel industry.

The Braunschweig-Magdeburg Field is part of the central German brown coal region. The coal has a moisture content of from 45 to 47 percent and a heating value of from 2,800 to 2,850 kilocalories per kilogram. It is used chiefly in the manufacture of briquettes.

In 1947 the Braunschweig-Magdeburg and the Thuringen-Sachsen fields were estimated to contain together 10.2 billion tons of brown coal. The total reserves of brown coal in East Germany at that time are estimated to have been 20.6 billion tons. At a consumption rate of 200 million tons per year, these reserves would last for over 100 years.

g. Investment.

The tremendous planned increases in brown coal production call for large amounts of investment in the industry to provide the necessary capacity. [redacted]

[redacted] investment funds for brown coal mining have been increased from DME 90 million in 1950 to the planned amount of DME 533 million for 1953. 331/ In 1950, the entire allocation was used, though not very efficiently, [redacted] 332/ In 1951, approximately 92 to 95 percent of the total allocation was used, and in 1952 about 90 percent. 333/ It has been reported that the proposed 1953 investment figure for coal and power of DME 620 million has been reduced to DME 490 million. 334/ More recent information has put the 1953 investment allocation for the brown coal industry at DME 533 million (see Table 20\*).

Annual investment under the "Long-Range Plan" is to cover the cost of development, reconstruction, and new construction through 1957. Included in the planned development are the enlargement of 22 existing mines, the reconstruction of 8 surface plants, the opening of 13 new brown coal mines, and new construction, repair, and enlargement involving 34 briquette plants. 335/

\* Table 20 follows on p. 91.

S-E-C-R-E-T50X1  
50X150X1  
50X1

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Table 20

Planned Investment in the Brown Coal Industry in East Germany  
and Percentage of Fulfillment  
1950-53 336/

	Million DME			
	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
Planned Investment	90	150	320	533
Percentage of Fulfillment	100	92-95	90	90 <u>a/</u>

a. Estimate based on past experience.

h. Research.

Experimental research in coal mining is mainly concerned with brown coal strip mining and methods of manufacturing brown coal briquettes. 337/ The most important research center is the Freiberg Mining Academy. It is believed that the funds for this work are furnished by the Central Office for Research and Technique (Zentral Amt fuer Forschung und Technik -- ZAFT). In 1952, there were 17 research projects underway at the Academy with an approximate cost of DME 578,000. These funds were probably part of DME 2.8 million allocated to the Coal and Energy Administration for research projects in 1952 by the Scientific-Technical Council (Wissenschaftlich-Technischer Beirat) of ZAFT. For 1953 this allocation has been increased to DME 5 million. Projected research not carried on at the Mining Academy is farmed out to various pilot plants established by ZAFT. Three such plants are at Bitterfeld, Hirschfelde, and Delitzsch. 338/

In the past two years, a most important research project has been the development of a method of producing from brown coal a hard coke suitable for metallurgical uses. The Lauchhammer plant, which produces such coke, serves well as an example of the routine followed in experimentation, development, and implementation of a new process. The initial experimental research was accomplished at the Freiberg Academy prior to 1952 by Professors Rammler and Bilkenroth. 339/ It involved not only the perfection of a high-temperature coking process, but also a process for production of a

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certain quality of briquette to permit absolute uniformity in the material for the coke oven charge. 340/ A pilot plant was then constructed at Delitzsch under the direction of ZAFT to test the process on a larger scale.

After the successful pilot plant operation the development was given a place in the investment plan for 1952 with an allocation of DME 325 million. 341/ This allocation provided for a commercial-sized plant. The construction deadline of 22 September 1952 was not met, because materials were difficult to obtain and were often of unsatisfactory quality. The first coke was made in the plant late in 1952. Reports since then indicate that the coke is not completely satisfactory. In the 1953 investment budget, Lauchhammer received DME 163 million, a reduction of about 50 percent from the previous year's allocation. Although it was on a special list of priority (Schwerpunkt) investment projects in 1952, the project was again scheduled for completion in 1953. The most recent information on planned investment in the Lauchhammer plant, however, indicates an allocation of only DME 130 million for 1953.

## 2. Iron and Steel Industry.

### a. General.

On the eve of World War II the area now known as East Germany was of little importance in the production of ferrous metals, even though Germany was busily preparing for war. Most German iron and steel production was centered around the large deposits of comparatively high quality raw materials in the Ruhr. The post-war division of the country cut off East Germany from its traditional source of iron and steel, much as an "iron curtain" along the Hudson River would separate the light industries of New England from their established sources of these materials. East Germany, therefore, has made a serious effort to develop steel production capacity sufficient to satisfy domestic requirements. In spite of many severe handicaps, these efforts have met with considerable success.

Establishment of a substantial steel industry in East Germany seems to hinge on effective use of the inferior raw materials found in the area. Trial operations to this end are being carried on in a new type of smelting furnace known as the

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low-shaft blast furnace. This type of blast furnace is designed to handle a burden fired with coke of low strength, such as the coke made from the poor-quality coal found in East Germany, or with lignite briquettes. Since there is a limit to the height of charge that such fuels will bear without crushing, the blast furnaces are designed for a limited charge that will not pulverize the fuel and thus prevent satisfactory furnace operation. Moreover, the limited height of the charge permits the use of finely divided ores that would pack and interfere with the operation of conventional blast furnaces. These low-shaft blast furnaces produce iron of a reasonably satisfactory quality, but output per furnace is less than that of conventional types.

There are only three plants in East Germany that smelt iron. These are the new Stalin Combine plant (formerly Metallurgical Combine, East) at Fuerstenberg/Oder, which operates only conventional-type blast furnaces using Russian ore and Polish coke; the Maxhuetta plant at Unterwellenborn, which operates conventional blast furnaces and one experimental furnace of the low-shaft type; and another new plant, known as Metallurgical Combine, West, at Calbe, which operates only low-shaft blast furnaces. So far as output is concerned, the low-shaft blast furnaces of the Calbe and Maxhuetta plants have not yet been demonstrated to be a success. Not all of the blast furnaces planned at Calbe have been completed, thus production there has not so far been very important. It appears that new construction at Calbe was suspended during the summer of 1952 pending further developments. Table 21\* shows planned and actual or prospective investment expenditures for nine major East German iron and steel plants during the period 1950-55.

It is now apparent that the rather optimistic goals of the Five Year Plan are not likely to be realized. Some curtailment of plans has been officially announced, and it is believed that the reduced goals can be reached only by recourse to imports of pig iron, semifinished steel, and finished rolled steel. Pig iron has been imported from the USSR, the other Satellites, and even from non-Bloc countries. The other Bloc countries, however, have their own pig iron problems, and in the long run we may expect East Germany's steel production to be limited by its own production of pig iron. The other Bloc countries probably need all of the semifinished steel that they can produce, and although some finished rolled steel

\* Table 21 follows on p. 94.

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Table 21

Planned and Actual or Prospective Investment Expenditures  
at Nine Major East German Iron and Steel Plants  
1950-55 a/

	Million DME					
	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>
Planned Investment <u>342/</u>	173	321	302	413	386	114
Actual or Prospective Investment <u>343/</u>	N.A.	248	329 b/	557	315	142

a. Totals include data for the following plants: Brandenburg Steel and Rolling Mill, Doehlen Alloy Steel Plant, Groeditz Iron and Steel Works, Henningsdorf Steel and Rolling Mill, Maximillianhuette (Unterwellenborn), Metallurgical Combine, West (Calbe), Kirchmoeser Plant, Riesa Steel and Rolling Mill, and Stalin Combine (Fuerstenberg).

b. For 7 of the 9 plants. Data for the Henningsdorf and Kirchmoeser plants are not available.

shipped from other Bloc countries may supplement the output of East German rolling mills, such imports will probably be limited to cases that have a reparations or reexport angle.

All in all, it appears that East Germany's ambitious plans for developing an integrated steel industry will produce somewhat limited results because of the inferior raw material base. Economic considerations require the location of integrated steel plants near raw materials rather than near markets. The East German program to increase steel production is therefore under a handicap, though it is not necessarily doomed to fail.

When the USSR took over the administration of East Germany at the end of the war, practically all of the ferrous metals plants became Soviet property. These plants have been returned to East German ownership at irregular intervals. The last two -- the integrated plant at Thale and the rolling mill at Hettstedt -- were returned on 1 January 1954. There are no important privately owned plants in the ferrous metals field. 344/ All East German steel-making



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facilities are under the control of the Ministry of Metallurgy and Mining, which receives its planning directives from the Metallurgical Department of the State Planning Commission.

The major segments of the ferrous metals industry are discussed individually in the sections which follow. Available data on the supply and distribution of iron ore, pig iron, metallurgical coke, steel ingots, rolled steel, and ferroalloying metals and ferroalloys are summarized in Table 65,\* Appendix A.

b. Iron Ore.

(1) Resources.

It is difficult to appraise the iron ore reserves in East Germany because of the limited amount of information available. Known and probable iron ore reserves have been estimated as high as 51 million tons, which represents an iron content of approximately 14 million tons. This figure must be accepted with caution, however, since confirmation is lacking. Two-thirds of the reserves are reportedly located in the Harz Mountains area, with the balance in Thuringia. <sup>345/</sup> Generally speaking, the ore is of very low iron content, ranging for the most part from 25 to 35 percent iron. It also has a high silica content, producing large quantities of slag in the blast furnace and requiring abnormally large quantities of coke for smelting. <sup>346/</sup>

The present extent of ore beneficiation practices at the mines is unknown. It is believed, however, that ore dressing operations are confined chiefly to the metallurgical plants and therefore consist mainly of crushing and sintering. The installation of low-shaft blast furnaces permits utilization of finely divided ores such as those mined at Badeleben in the Harz Mountains, but the number of East German mines with small outputs of varying chemical composition makes it difficult to fulfill the demands of the metallurgical plants for ore shipments of uniform composition.

The low phosphorus content of East German iron ores is a continuing problem in the industry, particularly in the Thuringian mining district. At one time the Maxhuetten metallurgical plant used considerable quantities of West German and imported ores

\* P. 213, below.

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of high phosphorus content to balance this deficiency in East German ores, which otherwise could not be used to produce steel of satisfactory quality by the Thomas process.\* In recent years, the low percentage of phosphorus reportedly has been made up by the admixture of apatite, a phosphorous-bearing mineral imported from the USSR. 347/ The extent of this practice is not known, however, nor is it known if importation of apatite has continued.

Only relatively low-grade ores remain in East Germany, and their iron content will probably decrease further as mining continues. Because of years of exploitation of existing iron ore deposits and the improbability of further discoveries of economic deposits, the expansibility of the East German iron ore mining industry is negligible compared with that in some of the other Satellite countries.

(2) Supply.(a) Production.

Production of iron ore increased from 400,000 tons in 1950 to about 490,000 tons in 1951. Production in 1951 thus fell short of the target of 505,000 tons, which in itself was a reduction of the original production goal of 630,000 tons. 348/ A much better showing was made in 1952, when the goal of 750,000 tons was exceeded by 23,000 tons. Production plans for 1953 were somewhat less realistic. Production not only fell short of the objective in the October 1951 version of the Five Year Plan and the more modest goal of the Ministry of Metallurgy and Mining, but appears to be less than the further downward revision of the plan to 1,340,000 tons. At the same time, the increase in production of about 450,000 tons over the previous year is a notable achievement. Table 22\*\* shows planned and estimated actual production of iron ore for the years 1951 through 1955.

Accomplishment of planned iron ore production in 1954 and 1955 appears to be unlikely despite the establishment of

\* High phosphorous iron is necessary because the extra heat produced through oxidation of the phosphorous compensates for the heat lost through low silicon content. Silicon is held to low percentages to prevent erosion of converter linings.

\*\* Table 22 follows on p. 97.

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Table 22

Planned and Estimated Actual Production  
of Iron Ore in East Germany  
1951-55

	Thousand Metric Tons				
	1951	1952	1953	1954	1955
Five Year Plan <u>349/</u> Plan of the Ministry of Metallurgy and Mining <u>350/</u> Revised Annual Production Quota	630	750	2,330	2,600	3,650
Estimated Production	490 <u>a/</u>	773 <u>a/</u>	1,340 <u>351/</u> 1,218 <u>b/</u>	1,710 <u>352/</u> 1,550 <u>c/</u>	1,880 <u>d/</u>

a. Estimated.

b. Estimated on the basis of 91-percent fulfillment of the revised production quota in the first 9½ months of the year. 353/

c. Assuming 91-percent fulfillment of the revised production quota of 1,710,000 tons.

d. Assuming the same amount of increase in 1955 as in 1954 (about 330,000 tons).

a new mine at Schleiz scheduled to begin operations in 1953. 354/ In addition, a mine at Kuhschnäppel and one at Ohrleben are planned to be put into production in 1955. Nevertheless, the large investment required for the necessary expansion in mining and ore concentration facilities, the labor unrest, and the failure to reach the 1953 goal suggest that the plans for 1954 and 1955 will not be fulfilled.

After the riots of June 1953, the State Planning Commission reduced planned investment in the metallurgical industry for the last six months of 1953 from DME 789 million to DME 616 million, with the cut for iron ore facilities amounting to DME 4 million. 355/ Planned investment in the metallurgical industry in 1954 has since been reduced from DME 700 million to DME 200 million in accordance with the "new course." This undoubtedly will have a drastic effect on the contemplated expansion of iron ore production. 356/

S-E-C-R-E-T(b) Imports.

The amount of iron ore imported from the USSR in 1951 is uncertain, but it is believed to approximate the total planned imports of 150,000 tons. Ore also was obtained from Norway, Sweden, and China in 1951, but these imports totalled less than 33,000 tons according to the information available. 357/

In 1952, imports of iron ore from the USSR amounted to about 1 million tons, 358/ of which an estimated 414,000 tons were shipped from Krivoy Rog to the plant at Fuerstenberg/Oder. Some ore was also supplied by Czechoslovakia, Rumania, and Sweden. Except for the imports from Sweden, which amounted to 9,000 tons, 359/ the volume of these shipments is not known. Planned imports from the USSR in 1953 amounted to 1,800,000 tons 360/ -- a threefold increase in the figure given for total ore imports in the October 1951 version of the Five Year Plan. Shipments of only 1,335 tons from non-Bloc countries have been reported for 1953. 361/

(3) Distribution and Requirements.

Iron ore in East Germany is distributed to three major plants -- the Stalin Metallurgical Combine (formerly Metallurgical Combine, East) at Fuerstenberg/Oder, Metallurgical Combine, West at Calbe, and the old Maxhuetten iron and steel plant at Untertwellenborn. The Stalin Metallurgical plant is supplied almost entirely with ore imported from the USSR. Lagging deliveries of ore from Krivoy Rog, however, have necessitated the use of some low-grade ores from the Braunesumpf and Schmalkalden mines. 362/

The low-shaft blast furnaces at Calbe are especially designed for smelting finely divided ores such as those obtained from the mines at Badeleben, Buechenberg, and Tangelniederung. 363/ Ore for the Maxhuetten furnaces are supplied mainly by the Kamsdorf, Wittmannsgereuth, and Schmiedefeld mines in the Saalfeld district of Thuringia. 364/ Since these ores average only 20 to 25 percent iron, they are first concentrated to 40-to-45-percent iron content in an installation which began operations at the end of 1952. 365/

Estimates of iron ore requirements based on anticipated East German iron and steel production through 1955 are

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presented in the summary analysis of supply and demand in Table 23.\* As far as is known, there has been no export of iron ore in recent years, since it would aggravate an already difficult supply situation. It is thought, however, that about 40,000 tons of iron ore are included in the state reserves. 366/

c. Metallurgical Coke.

East Germany has very meager coking coal resources and is unable to produce nearly enough coke to satisfy domestic needs. Additional supplies are therefore imported from Poland and Czechoslovakia. (Some reported coke imports from the USSR are actually shipments of Polish coke on Soviet account.) Planned imports of coke for 1951, 1952, and 1955 and other data on coke are included in Table 65,\*\* Appendix A.

The area has had extreme difficulty in obtaining the planned imports, particularly those from Poland. Imports of Polish coke in 1953 have been reported as 300,000 tons less than planned. 367/ In view of past experience, there is considerable doubt whether import goals for succeeding years will be attained.

The Karl Marx and August Bebel plants in the Zwickau area account for virtually all East German metallurgical coke production. 368/ Intensive efforts have been made to develop an economical method of producing metallurgical coke from brown coal, but experiments have been unsuccessful so far. Nevertheless, a plant for large-scale manufacture of brown coal coke is under construction at Lauchhammer, and part of it is already operating experimentally. The plant produced 5,000 tons of coke in 1952 instead of the 125,000 tons planned, 369/ and a daily production of 280 tons was reported in May 1953. 370/

The East Berlin Gas Works reportedly has also begun experimental production of a usable metallurgical coke from brown coal. 371/ More favorable results appear to have been obtained here than at Lauchhammer because of the use of a different method. Production at this plant was planned at 4,000 tons in 1952 and 20,000 tons in 1953. 372/

\* Table 23 follows on p. 100.

\*\* P. 213, below.

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Table 23

Summary Analysis of the Supply and Demand of Iron Ore in East Germany, 1947-55  
(Data in Terms of Ore of 50-Percent Iron Content a/)

<u>Year</u>	<u>Estimated Consumption of Iron Ore <u>b/</u> (Thousand Metric Tons)</u>	<u>Estimated Domestic Production of Iron Ore <u>c/</u> (Thousand Metric Tons)</u>	<u>Estimated Percent of Self-Sufficiency</u>	<u>Estimated Imports of Iron Ore Required (Thousand Metric Tons)</u>	<u>Reported Imports of Iron Ore (Thousand Metric Tons)</u>
1947	276	170	62	106	N.A.
1948	449	170	38	279	N.A.
1949	627	216	34	411	N.A.
1950	771	240	31	531	N.A.
1951	816	294	36	522	N.A.
1952	1,483	464	31	1,019	1,000 <u>d/</u>
1953	2,412	730	30	1,682	1,800
1954	2,583	930	36	1,653	
1955	2,745	1,129	41	1,616	

a. Ores as imported are believed to have an average iron content of about 50 percent. Iron ores mined in East Germany, on the other hand, have an iron content of from 25 to 35 percent for the most part. Data on East German consumption and production of iron ore have consequently been adjusted to a 50 percent basis for comparability with import figures. An average iron content of 30 percent is assumed for East German ores as mined.

b. Based on estimates of pig iron and steel production.

c. Estimated.

d. Includes only rail shipments from the USSR.

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The failure of the Lauchhammer plant to develop a suitable coke and the irregularity of imports from Poland and Czechoslovakia have resulted in relatively small inventories of the commodity -- less than a week's supply at some plants in December 1952. <sup>373/</sup> The Maxhuetten plant at Unterwellenborn, East Germany's large pig iron producer, was reported to have only 1½ days' supply of coke on hand on 16 May 1953. <sup>374/</sup> As a result, the operating time of the furnaces was cut in half for a time. <sup>375/</sup> It should be noted, however, that metallurgical coke cannot be stored for long periods of time without deterioration of lump size and increasing moisture content. Inventories of coke at metallurgical plants consequently seldom exceed 1 month's supply.

d. Pig Iron.

Pig iron production at the new plants at Calbe and Fuerstenberg/Oder has not increased as planned. This is the result of the comparatively lean ores available, the lack of suitable metallurgical coke, and the experimental nature of low-shaft blast furnace operations. As a result of these difficulties, it is estimated that production for 1953, 1954, and 1955 will be only about 50 to 75 percent of planned figures.

In order to meet minimum pig iron requirements, it has been necessary to supplement East German production with some pig iron from other Soviet Bloc countries. It would be unwise to assume that the Bloc will fail to provide at least the minimum amount of pig iron that is needed to enable East Germany approximately to fulfill its steel production requirements and thus sustain its program for the development of heavy industry.

e. Steel Ingots.

After being prostrated by the war, East Germany accomplished a slow but steady recovery in steelmaking, and by 1952 had attained the prewar level of ingot production. It seems probable, however, that the modified steelmaking goals of the Five Year Plan will not be achieved unless pig iron or scrap is imported. Although no exports of ingots have been planned in recent years, it appears that steel production exceeded the capacity of rolling facilities 2 or 3 years ago, with the result that some ingots were shipped to Poland and Czechoslovakia for conversion to rolled products.

S-E-C-R-E-Tf. Iron and Steel Scrap. 376/

East Germany's requirements for iron and steel scrap have, of course, increased as steel production has been expanded, and the scrap supply situation at times has been critical. Since scrap and pig iron are to a high degree interchangeable in the steelmaking process, significant short-term increases in steel output may be accomplished through greater use of scrap metal. At the same time, this may offer attractive economies in the use of labor and equipment compared with the production of an equal amount of pig iron.

Apart from the byproduct scrap of the iron and steel industry itself, a major source of scrap for East Germany until recently was surplus military equipment and war wreckage of various kinds. Recovery of other types of iron and steel scrap has been promoted through collection drives. Vigorous efforts have also been made to import scrap from the West, but the amounts obtained have been limited by Western requirements and export controls.

East Germany has been using unusually large proportions of scrap in open-hearth furnace charges. Some scrap is used also in blast furnaces, electric steelmaking furnaces, and iron foundries.

The pressure on scrap supplies in East Germany has been due in part to the demands of the USSR and of other Satellites. Soviet policy has been to call on East Germany to meet scrap deficiencies elsewhere in the Soviet Bloc, and the USSR has indeed dismantled some German factories primarily for the scrap metal which could be salvaged. The relatively large reserve of scrap resulting from the war has been exhausted, except possibly for some sunken ships along the coast. Scrap collection drives have continued, but increasing difficulty is experienced in maintaining the flow of metal from this source. In the future, East German officials hope to lessen the area's dependence on scrap supplies by bringing into operation a number of new blast furnaces for pig iron production.

g. Rolled Steel.

The USSR removed most of the steel-finishing facilities in East Germany at the war's end and then forced the Germans to replace them in order to manufacture goods for reparations.

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Production of rolled steel has increased rather remarkably in the last several years and has been supplemented by importation of large tonnages of finished steel from various countries in the West and also no doubt from other Soviet Bloc countries. Practically no information about the latter deliveries is available.

The East German supply of rolled steel exceeded the planned figure in 1952 and was expected to do the same in 1953. It would therefore not be surprising if enough tonnage were imported in 1954 and 1955 to make the supply of rolled steel likewise exceed planned amounts for those years. Surprisingly enough, export of a small tonnage of East German rolled steel to the West appears to have taken place during the past few years. Direct shipment of rolled steel to the USSR as reparations or as exports has been unimportant. The announced intention of the USSR to discontinue reparations at the end of 1953 and to return the remaining SAG plants to the East German government at that time may have far-reaching results, since East German rolled steel production might increasingly be fabricated into manufactured goods offered in world markets.

There is little stockpiling of iron and steel beyond normal working inventories at the producing mills and fabricating plants, and minor tonnages of rolled steel are assigned to centrally controlled stocks.

h. Ferroalloying Metals and Ferroalloys.

East Germany is dependent to a large extent upon imports of all the ferroalloying metals and of all ferroalloys except ferrosilicon, ferromanganese, and ferrochromium. Domestic production of ferroalloying minerals and metals is limited to silica, nickel, and small amounts of tungsten. Nickel, tungsten, cobalt, chromium, molybdenum, vanadium, manganese, and titanium are imported in various stages of processing ranging from raw ores and concentrates to refined metals and ferroalloys.

The major sources of these imports are the other countries of the Soviet Bloc, particularly the USSR. Continuous efforts are made, however, to obtain ferroalloys and ferroalloying metals from the West. This has been especially true in the case of cobalt and molybdenum, which are in the shortest supply in the Bloc. The information currently available is too fragmentary to support an estimate on the extent of this trade.

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Information on planned investment in this field from 1950 to 1955 is summarized in Table 24.

Table 24

Planned Investment in the Ferroalloys Industry  
in East Germany,  
1951-55 377/

	Thousand DME				
	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>
Ferroalloy Plants	6,400	7,990	8,360	2,730	2,500
Nickel Smelters	804	700	N.A.	300	200
Nickel Ore Facilities	80	5,000	7,000	5,000	3,000
Tungsten Ore Facilities	1,455	3,417	4,000	3,200	2,950

The planned expansion of the nickel industry is based primarily upon the newly developed mine at Callenberg and upon the St. Egidien smelter, which was scheduled to start operating in the latter part of 1952. The Callenberg nickel deposit apparently is sufficient to support planned production through 1955 (and probably for many years thereafter), and refining capacity is already adequate to meet the goals of the Five Year Plan.

Relatively insignificant amounts of tungsten concentrates are obtained from the tin-tungsten mines at Gottesberg, Pechtelsgruen, and Zschorlau. There are no apparent reasons for not achieving the modest planned increase in production.

One East German mine producing an ore containing manganese has been reported at Schmalkalden (Thuringia). 378/ The nature of the ore is not known, but it is probably a manganiferous iron ore containing from 5 to 10 percent manganese. 379/ It was reported in 1951 that the deposit was more important as a source of iron than of manganese. 380/ The October 1951 version of the Five Year Plan indicates, moreover, that the total supply of manganese is to be imported, so domestic production is probably negligible. Imports are obtained from the USSR and to a lesser extent from Hungary, Bulgaria, and Rumania. Planned manganese imports through

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1955 seem quite excessive in view of the planned output of steel and any reasonable estimate of the portion of it which will be alloyed with manganese.

The principal ferroalloys manufactured in East Germany are ferrosilicon, ferromanganese, and ferrochromium. The area's main plant, at Lippendorf, produces all three of these alloys. Small amounts of alloys using tungsten, vanadium, titanium, molybdenum, and phosphorus are manufactured at the plant at Bitterfeld. Imports of alloying metals sufficient to meet planned outputs of ferroalloys can probably be obtained from the USSR and Communist China without too much difficulty.

Some increase in electric furnace capacity will be necessary, however. Six new furnaces (five of 7,500 kilovolt-amperes (kva) and one of 3,000 kva capacity) are to be placed in operation by 1 January 1955. In addition, one 7,500-kva furnace and two 3,000-kva furnaces are to be added during 1955. 381/

### 3. Nonferrous Metals.

#### a. Copper.

In common with other enterprises in the nonferrous metals industry, most East German copper producers and fabricators are nationalized firms (VEB's). The last SAG's were returned to East German ownership on 1 January 1954, and private firms are gradually being absorbed by the VEB's. Copper mines and smelters are under the control of the Main Administration for the Nonferrous Metals Industry, which is part of the Ministry of Metallurgy and Mining.

Copper ores in East Germany come almost exclusively from the mines at Mansfeld and Sangerhausen. The area's estimated copper production increased from 25,800 tons in 1948 to 36,920 tons in 1952 (see Table 67,\* Appendix A, for a summary of available data on the supply and distribution of copper and other nonferrous metals). About 70 percent of total output in recent years is believed to have utilized scrap rather than ores. The electrolytic and fire-refined copper which is produced is fabricated into wire, cable, and many other products by the area's copper and brass rolling mills.

\* P. 219, below.

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Only about one-third of East Germany's production of copper has been used domestically in recent years. The remainder has gone to the USSR directly or through SAG Hettstedt, which supplied the USSR exclusively. 382/ Plans for 1952 indicate that about 87 percent of copper output was to go to the SAG's. Some 90 percent was distributed to the SAG's in the first quarter of that year. 383/

The VEB copper producers were required to sell to the SAG's at a price of DME 4,500 per ton effective 1 January 1953. 384/ The production cost of copper from ores has been reported as DME 11,167 per ton and the cost from scrap as about DME 850 per ton. 385/ To the extent that the price to the SAG's did not cover the average cost of production, the difference was made up by government subsidies. The Mansfeld Combine reportedly lost DME 7,524,000 through such sales from 1 January to 30 September 1952. 386/

Information on copper inventories is sketchy, but they are not believed to be significant in size. The latest data are for the end of 1951 and the end of the first quarter of 1952, when inventories of 196.5 and 148.1 tons, respectively, were reported. 387/ State reserves of copper on 1 January 1953 were reported at 3,700 tons. 388/ Sizable withdrawals from the reserves were made up to April 1953, and orders have been given for replacement of these amounts.

The 1955 production goal of 52,900 tons of copper in the October 1951 version of the Five Year Plan is unrealistically high. This plan provided for the mining of 850,000 tons of copper sand ore in a new deposit, but this has been abandoned because of the low copper content of the ore. Planned copper ore production in 1955 has thus been reduced to 1,800,000 tons from 2,650,000 tons. Furthermore, the copper content of the ores will be much lower than was originally anticipated. Table 25\* shows how goals for copper ore production have been modified since August 1951.

According to the latest available revision of the plan, production of copper from ores was projected at 13,000 tons in 1953, 14,000 tons in 1954, and 17,000 tons in 1955. 393/ An East German mining expert doubts, however, that ore production will exceed

\* Table 25 follows on p. 107.

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Table 25

Planned Production of Copper Ore in East Germany  
1951-55

Year	Thousand Metric Tons		
	Plan of August 1951 <u>389/</u>	Plan of October 1951 <u>390/</u>	Plan of April 1953 <u>391/</u>
1951	1,060	960	
1952	1,340	1,200	1,085 Actual <u>392/</u>
1953	1,460	1,500	1,400
1954	1,630	1,800	1,500
1955	1,800	2,650	1,800

1,500,000 tons in 1955. 394/ If this is the case, copper production from ore would be closer to 14,000 tons than to the 17,000 tons planned.

It is estimated that the copper supply in East Germany in 1955 will be from 61,000 to 64,000 tons, made up as follows: 14,000 to 17,000 tons from ores, 27,000 tons from scrap, 10,000 tons imported, and 10,000 tons produced from imported scrap.\*

The planned investment in the copper industry under the Five Year Plan is shown in Table 26.\*\* These figures were published in August 1951. Developments since that time have required a review of the investment plans, 397/ but little is known of changes which may have been made in them. Efforts to expand copper production through additional investment have been supplemented by wage incentives to increase labor productivity. At the Mansfeld Combine, for example, a gradual shift to a system of wages based on the worker's output has been reported. 398/

\* This may be scrap or blister copper processed on toll for Czechoslovakia. 395/ If so, it should not be counted in East Germany's supply, because the refined product is returned to Czechoslovakia.

\*\* Table 26 follows on p. 108.

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Table 26

Planned Investment in the Copper Industry in East Germany  
1951-55 396/

	Thousand DME					
	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>Total</u> <u>1951-55</u>
<u>Ore Mining</u>						
Mansfeld	11,615	20,900	12,000	7,000	5,000	56,515
Sangerhausen	14,233	15,700	17,000	15,000	10,000	71,933
Total	<u>25,848</u>	<u>36,600</u>	<u>29,000</u>	<u>22,000</u>	<u>15,000</u>	<u>128,448</u>
<u>Smelting and Refining</u> <u>(Mansfeld)</u>						
Smelting Plant	7,794	7,500	13,000	10,000	6,900	45,194
Electrolytic Refinery	5,365	5,850	9,000	8,000	3,000	31,215
Power Plant	1,926	3,420	4,000	4,000	2,500	15,846
Auxiliary Plants	2,921	2,550	4,000	3,500	2,500	15,471
Total	<u>18,006</u>	<u>19,320</u>	<u>30,000</u>	<u>25,500</u>	<u>14,900</u>	<u>107,726</u>
Grand Total	<u>43,854</u>	<u>55,920</u>	<u>59,000</u>	<u>47,500</u>	<u>29,900</u>	<u>236,174</u>

b. Aluminum.

The only aluminum plant now operating in East Germany is located at Bitterfeld. This plant, which formerly belonged to the I.G. Farben Company, was taken over by the USSR at the end of the war and designated SAG Kaustik. On 10 May 1952 it was returned to the East German government 399/ and is now known as VEB Electrochemisches Kombinat Bitterfeld (EKB).

The Lauta plant, with an annual production capacity of 62,000 tons, was dismantled and removed to the USSR immediately after the war. In addition, the Aken plant (annual capacity 11,000 tons) and to a lesser extent, the Bitterfeld plant (annual capacity

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33,400 tons) were cannibalized by the USSR. Twenty thousand tons of melting capacity was left at Bitterfeld, however, for the purpose of melting scrap aluminum. This plant was rebuilt in late 1951 with an annual capacity of 15,000 tons of primary aluminum ingot.

East Germany does not have deposits of bauxite, the ore source of aluminum, and relies on Hungary for its supply. The USSR has first claim on most of Hungary's bauxite, however, with the result that shipments of ore to East Germany have at times been insufficient to maintain production at full capacity. The ore is processed into alumina at Lauta, and the alumina is then shipped to Bitterfeld for reduction to aluminum.

Production of primary aluminum ingots at the rebuilt Bitterfeld plant amounted to about 5,000 tons in 1952 -- about one-third of the plant capacity. Production was limited by the failure to receive some planned bauxite shipments from Hungary. 400/ Production in 1953 was expected to approach the plant capacity of 15,000 tons if sufficient ore was received at Lauta. This is still far less than the peak capacity of 111,000 tons attained in East Germany during the war. 401/

Most East German aluminum is converted into aluminum-base alloys at Bitterfeld, Hettstedt, Rackwitz, and other plants. Research and development in the field of light metals and alloys has continued since the war at Bitterfeld, where the production of extra-high purity aluminum is of special importance to the Soviet electronics industry.

While aluminum is not included in East German reparations to the USSR, aluminum end-products are generally shipped to the USSR. No significant aluminum inventories or stockpiles have accumulated in East Germany during the postwar period.

Additional capacity of 13,500 tons at Bitterfeld and 11,500 tons at Lauta (for alumina) were planned for 1953. Planned production of primary aluminum ingot in 1955 has been announced as 50,000 tons. 402/ Investment to the extent of DME 21,745,000 has been planned for the Bitterfeld installation. Thirty percent of this amount was expended up to 31 May 1953. 403/

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S-E-C-R-E-Tc. Lead.

Little descriptive material on the mining and smelting of lead is available. Lead production amounted to about 12,000 tons in 1948 and approximated 20,000 tons in both 1951 and 1952. The original planned figure of 38,100 tons for 1955 has since been reduced to 19,285 tons. 404/ The bulk of this production utilizes scrap metal rather than ores. Inventories of lead have been reported as 279.5 tons at the end of 1951, 405/ and the State Metal Reserve included 1,600 tons of lead on 1 January 1953. 406/

While there is no evidence that lead is exported directly to the USSR, the lead-producing plants have been forced to sell to the SAG fabricating plants under a pricing arrangement similar to that for copper, described above. In 1952, for instance, 68 percent of the planned supply of 25,848 tons was to be distributed to SAG plants. 407/ The cost of lead obtained from ore was DME 2,055 per ton, whereas the selling price to the SAG's was DME 600 per ton. 408/ Since a large proportion of the lead is obtained from scrap at lower costs of production, it is not clear whether the sales to the SAG's entailed a loss. It seems likely, however, that lead mining and smelting operations are responsible for at least a part of the financial loss of DME 6,235,000, exclusive of losses on iron and copper, which the Ministry of Metallurgy and Mining reported for the first nine months of 1952. 409/

C. Electric Power.

In the production of electric power, East Germany is the most important of the Soviet Satellites. The fact that its 1955 production goal of 31.5 billion kilowatt-hours (kwh) is more than double that of any other Satellites is, to a large degree, a measure of its greater industrialization.

Throughout 1946 and 1947, the USSR dismantled and removed large quantities of electric plants from East Germany. But following this period of industrial destruction, the USSR found that replacement of much of this equipment was necessary if East Germany was to make a maximum contribution to the economic capabilities of the Bloc. Soviet exploitation of the industrial potential of East Germany, particularly its chemical and synthetic oil industries, was dependent on increased supplies of electric power.



S-E-C-R-E-T1. Production.

Electric power production in East Germany increased from 15.4 billion kwh in 1948 to 23.5 billion kwh in 1952. (See Table 27.\*) This increase required considerable effort, but it was accomplished to a large extent through intensive use of existing facilities rather than by new construction. The USSR had removed much of the newest equipment, so the remaining power plants were generally the oldest and poorest ones. Old, relatively inefficient plants that had not been used for base loads were either returned to service or, if already in use, had their hours of operation extended to the limit, sometimes with considerable hazard. In addition, old equipment was patched up, and normal repair schedules apparently were either bypassed or stretched out. Such a program naturally resulted in many equipment failures and outages (interruptions of service), but the objective of increased production of power was attained. Meanwhile, plans were being formulated for plant expansions and construction of new facilities.

Determining industrial power requirements is ordinarily very difficult, but once requirements are determined, the power industry is able to determine its capacity needs and production schedules fairly accurately. Meeting these goals and schedules, of course, may not be a simple matter. Such expedients as staggering the hours of operation of industrial consumers and, in many instances, severe rationing of use (usually at the expense of the domestic consumer) have been necessary in East Germany. 416/

As indicated in Table 27, above, planned production of power through 1955 represents a very ambitious program. The fact that equipment has been operated more hours per year than normal, with consequent sacrifices of maintenance, will militate against any increased rate of production with existing facilities. A substantial increase in output therefore requires that construction and expansion programs proceed on schedule despite many critical shortages of material and major items of equipment.

Materials and equipment may be imported from the USSR or other Bloc countries, but it is very questionable whether they can be obtained in sufficient volume to fulfill the plan. Such goods are also in short supply in the other countries of the Bloc.

\* Table 27 follows on p. 112.

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Table 27

Estimated Electric Power Capacity  
and Planned and Estimated Power Production in East Germany  
1948-55

Year	Installed Capacity (million kw)	Electric Power Production (billion kwh)		
		Planned	Revised Requirements (East German Estimates)	Estimated
1948	3.16 <u>a/</u>	14.0 <u>b/</u>		15.4 <u>c/</u>
1949	3.48 <u>a/</u>	14.3 <u>b/</u>		17.3 <u>c/</u> <u>d/</u>
1950	3.8 <u>e/</u>	18.0 <u>b/</u>		18.9 <u>d/</u>
1951	4.2 <u>f/</u>	21.2 <u>g/</u>		21.4 <u>c/</u>
1952	4.6 <u>f/</u>	22.6 <u>g/</u>		23.5 <u>h/</u>
1953	5.1 <u>f/</u>	24.5 <u>g/</u>	24.7 <u>i/</u>	25.6 <u>j/</u>
1954	5.6 <u>f/</u>	29.2 <u>g/</u>	27.8 <u>i/</u>	28.0 <u>j/</u>
1955	6.1 <u>f/</u>	33.4 <u>g/</u>	31.5 <u>i/</u>	30.5 <u>j/</u>

a. Estimates of probable installed capacity. Reported data vary from 2.8 million to 4.8 million kw. The latter figure very likely represents total boiler capacity. Since it disregards the imbalance between boiler capacity and generator capacity in individual plants, it is very questionable as a measure of installed generating capacity.



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e. Estimate based upon a tabulation of individual generating plants over 1,000 kw capacity.

f. The estimate of installed capacity in 1955 is based on the assumption of an output of 30.5 billion kwh and an average of 5,000 hours of operation for generating equipment (as was approximately the case in 1950). The capacities for 1951 through 1954 are interpolated positions on a straight line curve between 1950 and 1955.



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j. Estimated production for 1953 through 1955 is derived by graphic projection of reported data for the preceding years.

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The outcome of East Germany's program thus depends on the priority the USSR places on its requirements relative to the Satellites. It is believed that East Germany will fail to meet its planned goal of 31.5 billion kwh for 1955 and that its production is more likely to approximate 30.5 billion kwh.

Reported figures on the additional capacity planned to meet the 1955 production goal range from 2 million kw 417/ to 4 million kw. 418/ Even with such a wide variance in [ ] estimates, [ ] East Germany will not be able to expand its electric generating facilities sufficiently to attain the original 1955 production goal. An increase in capacity of about 2.3 million kw seems to be within the realm of possibility. This figure, added to the estimated 1950 capacity of 3.8 million kw, gives a rough estimate for 1955 of 6.1 million kw. This is approximately the amount of installed plant capacity which would be required to generate the estimated 1955 output of 30.5 billion kwh.

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50X12. Consumption.

Available data, which seem to be reasonably consistent, reveal a pattern of power consumption as shown in Table 28.\*

The data indicate that over 60 percent of the power was consumed in satisfying the requirements of industry in 1951 and 1952. It is likely that the industrial requirement will continue to hold a priority on the available power and that use restrictions will continue to favor industry, although some increase in domestic consumption may be allowed in order to placate the people. The "new course" economic policy proclaimed on 9 June 1953 by the SED Central Committee probably will result in a revision of planned consumption for 1953. 421/ On 21 June 1953 the SED Central Committee proposed that power cut-offs for household and other small consumers be eliminated during the third quarter of 1953. 422/ The State Secretariat for Coal and Power was instructed to prepare and submit a plan before 1 August 1953 that would guarantee an adequate supply of power for the population during the winter 1953-54. The State Secretariat announced that, during certain peak-load hours, industries would be required to curtail power consumption by 30 percent to assure household users of a supply. 423/ [ ] the industry is incapable of meeting unrestricted

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\* Table 28 follows on p. 114.

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Table 28

Electric Power Consumption Pattern  
in East Germany  
1951 and 1952

Consumer	Percent Consumption	
	1951 <u>419/</u>	1952 <u>420/</u>
Chemical	16.9	16.8
Mining	14.5	15.3
Liquid Fuel	12.0	11.8
Other Industries	17.0	17.1
Occupation Power	8.6	8.3
Transport and Public Use	7.1	7.3
Agriculture	2.5	3.5
Domestic	10.9	10.4
Plant Use and Losses <u>a/</u>	10.5	9.4
Total	<u>100.0</u>	<u>100.0</u>

a. "Plant Use and Losses" of 10.5 percent in 1951 and 9.4 percent in 1952 seem to be disproportionately small in the light of US experience. The available information is not sufficient to explain this situation.

demands for power, and certain limitations on its use will consequently continue. 424/ It seems likely that restrictions on use of electric power will continue for some time, though their applicability to the different classes of consumers may be varied from time to time as circumstances require.

### 3. Input Factors.

Shortages of materials and equipment are a serious obstacle to the expansion of the East German power industry. The country critically needs machine tools, boiler tubes, and special

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alloys normally supplied by the West but will not be able to import significant amounts of these goods from Western sources. Furthermore, East Germany is unable to produce generators and turbines of over 50,000 kw capacity.\* Although efforts are being made to develop the necessary manufacturing facilities, the results so far have not been promising. 425/ Attempts also have been made to obtain power plant equipment from Czechoslovakia but with very limited success. The amount of help the USSR can or will grant in this connection is not known.

Shortages of spare parts and repair items also place a serious limitation on production. Power plants, however, generally have a high priority for their solid fuels needs, though the quality of the fuel has frequently been inferior. The labor requirements of the electric power industry are relatively modest, and it is not anticipated that any serious shortage will develop. Some local shortages of highly skilled technicians may occur, but it is doubtful whether this will have serious consequences.

4. Investment.

The original Five Year Plan appears to call for an increase in power plant capacity of 2.78 million kw from 1950 to 1955. 426/ According to a speech by Deputy Premier Rau before the People's Chamber on 31 October 1951, investment expenditures of DME 1.5 billion will be needed for the planned expansion. 427/ This amounts to DME 540 per kw of installed capacity. Another statement by Minister Heinrich Rau indicates that "new construction costs DM/MW 600,000" 428/ that is, DME 600 per kw -- so an investment of DME 1.5 billion seems like a reasonable estimate of the cost of the planned expansion. An increase in plant capacity of 2.3 million kw seems more likely, however, than the planned figure.

5. Administration and Organization.

The energy economy of East Germany is under the administrative control of the State Secretariat for Coal and Power, which consists of a Main Administration for Coal and a Main Administration for Power. The Main Administration for Power includes five functional departments. At a lower level, five administrative units called

\* Estimate based upon a screening of orders for such items.

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Energy Districts were at first established on a geographical basis. These are believed to have had a functional organization similar to that of the Main Administration. 429/ On 1 January 1952 the Main Administration for Power was reorganized. 430/ It appears that under this reorganization the Administration is divided into five districts organized as VVB's (Vereinigungen Volkseigener Betriebe -- Associations of People's-Owned Enterprises). The principal change seems to have been the establishment of Mecklenburg as a separate district and the combining of East Berlin and the Brandenburg area. The following list gives the five energy districts and their corresponding supply areas after the reorganization:

<u>Energy District*</u>	<u>Supply Area</u>
North (Schwerin VVB)	Mecklenburg
South (Weimar VVB)	Thuringia
West (Halle VVB)	Saxony-Anhalt
East (Dresden VVB)	Saxony
Central (Berlin VVB)	Brandenburg and East Berlin

In mid-1952 the five Laender of East Germany were abolished, and the country was organized into 14 Bezirke. 431/ Eventually, the power system will be reorganized to conform to these political divisions and there will probably then be 15 nationalized distribution sections organized as VEB's (Volkseigene Betriebe -- People's-Owned Enterprises) and consolidated under the Berlin Power Administration VEB. 432/ It is not clear whether the intention is to abolish the five energy districts at that time. They could probably continue to perform the generation and transmission functions, leaving the distribution function to the smaller units.

In 1950-51 the SAG's produced 35-40 percent of East German electric power. 433/ After the return of 66 SAG's to German control in April 1952, only the 2 large power generation units at Espenhain remained under Soviet control. 434/ It has been reported that these two units are being retained by the USSR as a source of power for the uranium mines, despite the fact that all SAG's except Wismuth were to have been returned to German control as of 1 January 1954. 435/

\* Designations in parentheses are alternate terms used in some of the more recent reports.

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Although the SAG's were not under the Main Administration for Power, they did contribute energy to the general East German supply. Power facilities under the control of the Main Administration for Power may be classified as plants of general supply (mostly nationalized), plants of coal mines, plants of industrial firms, and communal and private plants. 436/ The communal plants, which are usually small generating and distributing facilities owned by local government units, correspond roughly to the municipal plants in the US.

D. Chemicals, Petroleum, and Rubber.1. Chemicals.

East Germany possesses the best developed chemical industry of all the Satellite countries and is capable of producing a wide range of chemicals and end-products not manufactured in any other Satellite. The position of the industry is indicated by the production of a number of basic chemicals which are discussed individually in the succeeding paragraphs. This brief survey is limited to chemicals included in the Five Year Plan, 1951-55, here referred to as the original plan. 437/ Available data on the supply and distribution of these commodities are contained in Table 68,\* Appendix A.

a. Carbon Disulfide.

Carbon disulfide is an indispensable raw material for the manufacture of viscose rayon and is also used to produce carbon tetrachloride and flotation agents. East German production in 1951 was about 35,000 tons (104 percent of Plan). Although the goal for 1952 was cut back from 40,000 to 35,000 tons, actual production was only about 93 percent of the revised plan and therefore less than in 1951.

East Germany's contribution to total Bloc production of carbon disulfide is not known. There were some exports in 1952 to Western Europe (principally the Netherlands and Austria) and, to a much smaller extent, to Hungary and Bulgaria.

\* P. 220, below.

S-E-C-R-E-Tb. Sulfuric Acid.

Although East Germany produces more sulfuric acid than either Czechoslovakia or Poland, contributing over 10 percent of the Soviet Bloc total in 1951, the shortage of this essential commodity is a matter of considerable concern to East German officials. Difficulty in meeting domestic requirements for the chemical is attributable to the scarcity of pyrites in the area. Further utilization of substitute raw materials containing sulfur will be necessary to overcome the pyrites shortage.

Although 1951 production (on a 100-percent acid basis) exceeded the planned goal by about 7 percent, production in 1952 was only about 93 percent of the revised plan, which set a somewhat higher objective for sulfuric acid production than that originally planned. Inability to achieve the revised 1952 plan was undoubtedly due in part to the failure to get the new acid installation at Farbenfabrik Wolfen into operation. Production of sulfuric acid at this plant is based on anhydrite (gypsum). The original plan was to complete the plant by the end of 1951, but this was subsequently changed to late 1952. Now it appears that the installation, which has an annual capacity of about 73,000 tons, may not have begun operations until the third quarter of 1953. A second plant of equal capacity at Wolfen is not expected to be operating before mid-1954. Wolfen's difficulties in reconstructing its anhydrite installation (which was dismantled after the war by the USSR) are quite indicative of the shortages of special steels and equipment in the area.

There have been numerous reports of cut-backs in production of commodities dependent upon sulfuric acid as a raw material. Moreover, the situation could become worse in the immediate future if imports of pyrites, which are obtained largely from the West, are further curtailed. Production of sulfuric acid appears to be near its peak under present conditions. To increase production measurably and, even more, to attain by 1955 the goal of 552,000 tons, it will be necessary to construct and put into operation many new installations utilizing various sulfur-bearing materials such as anhydrite and magnesium sulfate. East Germany has developed a new process for producing sulfuric acid from its abundant magnesium sulfate resources. Two plants based on this process may be in operation at this time, although their production has not yet offset the decline in production of acid from pyrites.

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S-E-C-R-E-Tc. Soda Ash.

East Germany's production of soda ash represented about 10 percent of the Soviet Bloc's total in 1951 and is exceeded in the Bloc only by the production of the USSR and Poland. The East German soda ash industry suffered a staggering loss in 1945, when the largest of the three principal producing plants (Bernburg, with a capacity of over 300,000 tons per year) was completely dismantled by the USSR. The country was left with two plants which were incapable of meeting domestic requirements. Imports from other Bloc countries and Western Europe have therefore been necessary, but the amounts received have been inadequate. In general, the chemical industry is the largest consumer of soda ash, but mining (uranium ore processing) and glass and ceramics manufacture also require large quantities.

Actual production has consistently been short of announced goals. Output in 1951 was about 83 percent of plan and in 1952 about 70 percent of plan, although production in 1952 showed an increase of 57 percent over 1951. The plant at Stassfurt was enlarged in 1951 and is now undergoing further expansion. Reconstruction work on the Bernburg plant was started in 1950 with the aim of operating at one-half of the plant's ultimate capacity (200,000 tons) by the end of 1952. Plant expansion and reconstruction have been retarded by difficulties in obtaining building materials and equipment. Poor construction and defective equipment have caused postponements of completion dates, and operational breakdowns have resulted in numerous instances. Although soda ash production was expected to be much higher in 1953 than in 1952, it is interesting to note that the original 1953 goal was reduced from 420,000 to 355,000 tons. The latter amount is nearly twice the 1952 output.

d. Caustic Soda.

East Germany ranks second to the USSR in the Soviet Bloc's production of caustic soda, producing nearly 27 percent of the total in 1951. Production in 1951 and 1952 exceeded the respective annual goals by about 3 percent, but some imports have nevertheless been necessary. Imports of 20,000 tons for 1952 were included in the October 1951 version of the Five Year Plan, but the amount was reduced to 13,000 tons in the revised plan. The revised plan for 1953 calls for caustic soda imports of 15,000 tons.

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[redacted] several industries, especially the textile industry, have experienced difficulty in attaining production quotas because of temporary shortages of caustic soda. Planned 1955 production of 300,000 tons may be attained, but it appears more likely that output will be a little short of this goal. To achieve the 1955 goal, a number of obstacles, such as shortages of electric power and electrolytic cells and other equipment, must be overcome. Power estimated at 750 million kilowatt-hours was consumed during 1952 in the production of electrolytic caustic soda. An additional supply of 350 million kilowatt-hours is expected to be required to fulfill the 1955 caustic soda plan, provided that no additional caustic soda is produced by soda ash manufacturers.

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e. Nitric Acid.

East Germany's production of nitric acid probably surpasses the combined output of Czechoslovakia and Poland and amounts to over 15 percent of the estimated Soviet Bloc total in 1951. Production in 1951 exceeded the final plan by 10 percent, 438/ and 1952 output closely approximated the goal for that year. 439/ The final quota for 1952 was greater than that in the original plan by 16,250 tons (or 7 percent) and, surprisingly enough, exceeded the goal for 1953. One aim of this emphasis on nitric acid production may have been the eventual development of an explosives industry, since nitric acid is an essential raw material for the manufacture of explosives. Additional facilities for nitric acid production have been mentioned in the plans and may be under construction at the Leunawerke and Piesteritz chemical plants.

f. Calcium Carbide.

East Germany's calcium carbide production in 1951 represented 55 percent of the total Soviet Bloc output and was over  $2\frac{1}{2}$  times the estimated output of the USSR. Production of 690,000 tons of the chemical in 1952 slightly exceeded the reduced plan, though it was 6 percent below the original plan. No revised plan for 1953 is now available, but the goal may approximate 726,000 tons, as compared with 757,000 tons in the October 1951 version of the Five Year Plan.

The 1955 production goal of 825,000 tons 440/ appears to be somewhat optimistic unless additional calcium carbide

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furnaces are installed, and it is not likely that any completely new plants will be built before the end of 1955. The availability of raw materials for increased production of calcium carbide may also become a limiting factor by 1955. Considerable quantities of coke and electric power are required as well. It is estimated that about 415,000 tons of coke and over 2.4 billion kilowatt-hours of electricity were consumed in the manufacture of calcium carbide in East Germany during 1952. To fulfill the 1955 plan, 80,000 additional tons of coke and 470 million additional kilowatt-hours of power will be required. Since nearly all coke supplies must be imported from Poland and greater amounts of electric power will be demanded for increased production of other electrochemicals (such as alkalis), shortages of coke and power could develop. Coke imports may, however, become less vital if a satisfactory coke can be developed from brown coal.

The production of synthetic rubber (Buna S) requires a high proportion of East Germany's calcium carbide output -- about 233,000 tons in 1952, or one-third of the year's production. The USSR was a large importer of the commodity in 1952 from East Germany.

g. Nitrogen Fertilizers.

East Germany's estimated 1951 production of nitrogen fertilizers approximated one-third of the Soviet Bloc total and was about equal to the production of the USSR. Even so, this was only about one-half of prewar production, since a considerable portion of the area's production capacity was lost through Soviet dismantlings of the Leunawerke and Piesteritz plants.

Production exceeded the final plan by 9 percent in 1951 and by 2 percent in 1952. Nitrogen fertilizer currently produced in East Germany consists principally of two types, ammonium sulfate and calcium ammonium nitrate (54 and 33 percent, respectively, of total output). Calcium cyanamide, sodium nitrate, and potassium ammonium nitrate also are produced. Almost 20 percent of current output is exported, some of it to the countries outside the Soviet Bloc. There are no indications that the 1955 goal for nitrogen fertilizers will not be achieved.

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S-E-C-R-E-Th. Caprolactam.

Caprolactam is used as the starting material for the manufacture of Perlon, a synthetic fiber similar to nylon. The Leunawerke is the only producer at the present time. The East Germans consider caprolactam a most important chemical commodity because Perlon silk, fiber, and cord products are in great demand. Except for rayon, Perlon is the only synthetic fiber being produced in quantity. Output in 1951 exceeded the plan by 15 percent, and the 1952 plan was exceeded by nearly 5 percent. Achievement of the 1955 goal of 10,000 tons will largely depend upon production of pure phenol, a basic raw material.

i. Benzene.

East Germany is a negligible producer of benzene, contributing only 3 percent of total Soviet Bloc production in 1951. Lacking the bituminous coal and coking capacity necessary for quantity production of benzene, the country must depend upon imports to cover its requirements. Its suppliers are the USSR, Poland, and Czechoslovakia. On the other hand, a number of Bloc countries depend upon East Germany for some chemicals and end-products produced from imported benzene. An estimated 60 percent of all benzene is used for synthetic rubber manufacture, and most of the remainder is used to make ethyl benzol (for the USSR) and insecticides and dyestuffs. Greater imports of benzene will be necessary in the future to meet the higher production quotas for synthetic rubber and insecticides.

j. Pure Phenol.

East Germany accounted for an estimated 37 percent of the total phenol produced from coal sources in the Soviet Bloc during 1951. However, production is believed to have fallen consistently below plan. Output in 1952 was 4 percent or more under the planned goal. While supplies of pure phenol are more adequate than those of most other coal-tar chemicals, the phenolic plastics industry nevertheless is handicapped by a shortage of the chemical. One version for the shortage may be the export of phenol to the West in order to obtain more essential raw materials or equipment, in some instances through barter agreements.

East Germany produces phenol largely by processing tar and oils derived from brown coal and lignite. Increased output

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will be possible only if new facilities are constructed or if new recovery techniques are discovered. As stated above, expansion of Perlon manufacture depends upon the availability of increased amounts of phenol.

2. Petroleum.

There is no known production of crude oil in East Germany. The petroleum industry includes only synthetic oil plants and some facilities for refining imported crude. Germany had a number of installations for the refining and specialty-processing of natural petroleum stocks during World War II, but with the exception of some minor plants in Berlin and Rositz, all of these were located in what is now West Germany. The natural petroleum processing plants were augmented by the most extensive and highly developed synthetic petroleum industry in the world. Synthetic petroleum stocks, popularly called "synthetic oils," probably constituted about three-fourths of all petroleum products manufactured by German plants during the war.

Probably half or more of the total German wartime output of petroleum products utilized one or the other of the two true synthetic oil processes -- Fischer-Tropsch synthesis and Bergius hydrogenation. Both of these are German-developed catalytic hydrogenation techniques, which are normally applied to fluid or fluidized charges of carbonaceous material. This material is usually derived from coal, though natural crude oil stock or natural gas may be used. Fischer-Tropsch synthesis involves hydrogenation of carbon monoxide gas, while the Bergius process involves direct hydrogenation of the carbonaceous material in a liquid or semiliquid state. 441/

Except for limited use of shale oil in West Germany during the war, coal (including brown coal and lignite) is the principal raw material from which synthetic oils have been and are now being derived. Approximately one-fifth of German wartime petroleum products was obtained by direct coal carbonization, which is not regarded as a true synthetic oil process. Nearly all of the plants using the direct coal carbonization process were located in West Germany. 442/ Most of the wartime production in the eastern area of Germany, on the other hand, employed the Fischer-Tropsch or Bergius processes. About two-thirds of the total German capacity in plants of these types was located in the eastern area (including the territory now under Polish administration). 443/

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Table 29 shows the number and capacity of the Bergius and Fischer-Tropsch plants prior to war damage, broken down according to the postwar political units.

Table 29

Number of Bergius and Fischer-Tropsch Plants  
in Germany during World War II <sup>a/</sup>  
and Their Estimated Capacities for Synthetic Oil Production  
by Postwar Political Units 1944/

Area	Number of Plants	Annual Production Capacity (Thousand Metric Tons)
East Germany		
Bergius Plants	5	1,625
Fischer-Tropsch	2	260
Total	<u>7</u>	<u>1,885</u>
West Germany		
Bergius Plants	4	1,050
Fischer-Tropsch	6	400
Total	<u>10</u>	<u>1,450</u>
Polish-Administered Area		
Bergius Plants	3	1,100
Fischer-Tropsch	1	60
Total	<u>4</u>	<u>1,160</u>
Total for Germany	<u>21</u>	<u>4,495</u>

a. Prior to the mass bombing of plants in 1944.

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Production in these plants is believed to have reached a maximum annual rate of about 4,237,000 tons of petroleum products at the beginning of 1944. 445/ [redacted] production was at an annual rate of 3,835,000 tons in early 1944. 446/ The portions of these amounts applicable to East Germany cannot be determined.

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German petroleum facilities sustained extensive damage during the war, and there was widespread dismantling of synthetic oil plants during the subsequent Soviet occupation. The Bergius plants at Blechhammer, Pollitz, and Magdeburg and the Fischer-Tropsch plant at Deschowitz were completely dismantled and removed. In addition, there was partial dismantling of the plants at Leuna and Schwarzheide, and the Bergius installation at Luetzkendorf appears to have been either destroyed or dismantled. 447/

In 1946, a program of repair and rehabilitation was undertaken for the petroleum processing facilities remaining in East Germany. Some plants were placed in operation at reduced capacity in late 1946 and early 1947, and there have subsequently been gradual increases in the production capacities of the Bergius plants at Leuna, Boehlen, and Zeitz and of the Fischer-Tropsch plant at Schwarzheide. These four plants represent an estimated two-thirds of East Germany's currently installed capacity for petroleum products. The remaining capacity is found in various smaller installations, including at least 6 and possibly 10 or more plants for direct coal tar refining and specific recovery of coal carbonization synthetic oils; a plant at Schkopau for the production of synthetic lubricants from an ethylene base; at least two natural crude oil refineries (the largest being the Luetzkendorf plant, where operation of the rehabilitated Fischer-Tropsch facilities appears to have been discontinued in April 1951); and four specialty plants for the production of special petroleum distillates and the reprocessing or reclamation of lubricants. 448/ East German petroleum processing capacity in 1953 is estimated to be 1,475,000 tons of synthetic oils and 250,000 tons of products processed from natural crude oil stocks. 449/

Bergius synthetic oils predominate in East Germany's output of petroleum products. The most important product manufactured by the Bergius process is aviation gasoline (95/130 grade), which is currently being produced only at Boehlen. Jet fuel is also produced at Boehlen, and large amounts of motor gasoline and diesel

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fuel are obtained from the Bergius plants at Boehlen, Zeitz, and Leuna. The Fischer-Tropsch process has always been of secondary importance in this area. Nevertheless, the Schwarzheide plant is an important source of jet fuel, as well as gasoline and diesel fuel, petrochemicals, synthetic fats, and certain other nonpetroleum products.

Synthetic oils obtained through coal carbonization are generally aromatic in character, so there is a sizable industry for the recovery and processing of these oils to obtain such petrochemicals as benzene, toluene, xylene, and naphthalene. The principal petroleum product resulting from the coal carbonization process is a distillate stock composed mainly of the chemical compound known as benzene or benzol. It is ordinarily used as motor gasoline but may also be used in limited concentrations as a high-octane blend stock in aviation gasoline.

Most lubricant stocks are derived from natural crude oil imported from Austria and refined at Luetzkendorf. However, a serious shortage of lubricants is indicated by the existence of a synthetic lubricant plant and of plants for the processing or reclamation of used lubricants.

A summary of available statistics on the supply and distribution of the major petroleum products is included in Table 69,\* Appendix E. The output of these products approximately doubled from 1948 to 1952, with especially notable increases in the manufacture of aviation gasoline and jet fuel. Sizable increases in the production of gasoline and diesel fuel are planned for the period 1951-55. These goals were very nearly reached in 1951, 1952, and 1953 for gasoline and diesel fuel combined, the overfulfillment of the objectives for production of diesel fuel almost balancing the underfulfillment in the case of gasoline. It is possible, however, that the industry is rapidly approaching its maximum level of production under the prevailing conditions. Numerous current reports, for example, indicate a serious shortage of spare parts for equipment.

Nearly one-third of the total production of East German liquid fuel plants in 1951 and 1952 was exported. About 80 percent of exports in 1951 and 62 percent of exports in 1952 went

\* P. 225, below.

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to the USSR. Poland accounted for an additional 16 percent in 1951 and 15 percent in 1952, and West Germany (and in 1952, Sweden) received most of the remainder. As already noted, significant quantities of crude oil are imported, mainly from Austria.

Although domestic civilian consumption of petroleum products has increased steadily in recent years, it has been a declining proportion of output -- 67, 60, and 55 percent, respectively, in 1950, 1951, and 1952. Civilian consumption of approximately 815,000 tons of petroleum products was originally planned for 1952. But during the latter part of the year, cuts were made in these allocations, reportedly because of increased requirements for export, for the Volkspolizei, and/or for military stockpiles.

Stocks of petroleum products on hand on 31 December 1951 were sufficient to meet civilian requirements for about 113 days at the 1951 rate of consumption. A year later, stocks equalled only 95 days requirements (at the 1952 rate of use), amounting to about 35 percent of the estimated total warehouse and refinery storage capacity.

### 3. Rubber.

#### a. Natural Rubber.

East Germany is one of the smallest users of natural rubber in the Soviet Bloc, depending primarily on synthetic rubber for its requirements. (See Table 70\* for statistics on the rubber industry.) However, the incomplete information available indicates that imports of natural rubber in recent years have consistently been below the planned amounts, and it appears that lack of natural rubber has resulted in a deterioration of the quality of some rubber products, particularly since 1948. Imports in 1951, for example, did not meet the area's requirements, and a reduction in the proportion of natural rubber used in certain products (especially tires) is believed to have been necessary. The manufacture of truck tires for export raises a problem in this connection, since the contracts specify that natural rubber must make up 50 percent of the total rubber content.

\* P. 227, below.

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East German stocks of natural rubber appear to be quite small. The major portion of planned imports is to be consumed each year, leaving year-end operational inventories of only 100 tons and a state reserve of 400 tons by 1955. Secret rubber depots have been reported at various points, but the evidence on this matter is inconclusive.

b. Synthetic Rubber.

East Germany is the leading producer of synthetic rubber among the Satellites. Production at the plant in Schkopau has increased rapidly since the end of the war despite some dismantling in the early years. The goal for 1955 was originally reported to be 60,000 tons, but the goal has since been increased to approximately 70,000 tons. Reports of a still higher goal for 1955 -- as much as 75,000 tons -- have not yet been confirmed. If East Germany undertakes the manufacture of oil-extended rubber, which apparently is not under study, output could be expanded by about one-third.

Almost half of the production of synthetic rubber is either exported or delivered as reparations and occupation costs to the USSR and other Satellites. This ratio is not expected to decline significantly before 1955, although all such deliveries will be considered exports in the future.

c. Reclaimed Rubber.

Production of reclaimed rubber in East Germany appears to be relatively small. There are only two major producing plants, although as many as six were planned at one time and the demand for this product is much greater than the available supply. [redacted] there was a small reserve of used rubber in 1950, which was frequently drawn upon by the SAG's and never exceeded 1,200 tons. Whether this rubber was reclaimed material or scrap is not clear.

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d. Motor Vehicle Tires.

Production of tires in East Germany does not meet the area's needs, particularly for certain extra-large sizes, which are imported mainly from Czechoslovakia and Sweden. Large-size tires were obtained from West German plants until the blockade in

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1948, when East German facilities for such production were expanded. Since 1951, some of these sizes have been manufactured at the Deka and Heindenau plants.

There are now four main tire-producing plants. The poor quality of the tires turned out (caused in part by the lack of natural rubber) results in a high replacement rate, and there is also a drain on tire production through reparations and occupation costs. The original production goal of 900,000 sets of motor vehicle tires and tubes in 1955 has since been increased to 1,200,000 sets.

Tires are allocated every quarter, and in general, the following priorities are observed in their distribution: (a) vehicles of nationalized enterprises, (b) vehicles of consumer cooperatives, (c) vehicles used for transportation of workers to and from their work, and (d) privately owned vehicles used to transport goods.

E. Engineering Industries.

1. Introduction.

While the area now called East Germany was somewhat more agricultural than the remainder of Germany before World War II, it was nevertheless preeminent in the production of certain types of light capital goods such as printing and lithography equipment, light machine tools and machine shop equipment, business machines (typewriters, calculators, adding machines, recorders), optical and precision testing equipment, and valves and fluid-handling equipment for the service and processing industries. The German national production of these goods was largely concentrated in the eastern area.

Unlike the industrial areas of Western Europe, however, eastern Germany has had relatively few integrated manufacturing plants for the production of completely finished or assembled units or even of major components and fully processed materials. Its industrial capabilities are still relatively limited in such basic sectors as heavy automotive equipment and mining and metallurgical plant machinery. One of the current Plan's main objectives is, therefore, to round out the industrial economy by building up production capacity in certain sectors.

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Even partial fulfillment of the planned goals will require the rehabilitation of old plants as well as the construction of new ones. Some rehabilitation was accomplished under the Two Year Plan for 1949-50, which preceded the current Five Year Plan and the limited reversal of economic policy which it reflects. A depleted and demoralized labor force likewise had to be reconstructed. Available evidence, especially reports of the events of June 1953, establishes the fact that this effort has not been very successful.

## 2. Scope of the Industries.

The size of the engineering, or capital equipment,\* industries of a country is a relatively good index of its productive capacity. In East Germany this group of industries employs an estimated 810,000 persons,\*\* or about 15 percent of the total nonagricultural labor force. (See Table 30.\*\*\*) The past 2 years have witnessed a speed-up of apprentice training, recruiting of women workers, diversion of workers from less essential industries, and addition of repatriated POW's to the labor pool. At the end of 1952 there were some 721 state-owned facilities (VEB's), 21 Soviet-owned and operated plants or plant troupings (SAG's),\*\*\*\* and an unknown number of privately owned and operated facilities.\*\*\*\*\*

\* This designation embraces the entire range of heavy, medium, and light machinery and accessories used in the manufacturing and extractive industries; in the service industries (construction, transportation, and communications); and in the armaments industries.

\*\* This assumes the same ratio of engineering to total nonagricultural employment in 1953 as in 1950, when the nonagricultural labor force totaled 4.75 million persons and some 700,000 persons were employed in the engineering industries. 450/ If the same ratio is applied to estimated nonagricultural employment in 1955, a labor force of 950,000 persons in the engineering industries is obtained.

\*\*\* Table 30 follows on p. 131.

\*\*\*\* Returned to East German ownership and control on 1 January 1954.

\*\*\*\*\* There are several thousand such units, chiefly repair and maintenance shops and minor subcontractors, making specialties such as machine components and semiprocessed materials. Toleration of a certain minimum of private enterprise is presumably for window-dressing purposes. The total production of these privately owned facilities, though considerable, is hard to estimate because of the lack of dependable data.

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Table 30

Estimated Employment and Number of Plants  
in Selected Engineering Industries in East Germany a/  
by Owner Category  
June 1953

Commodity Group	<u>State-Owned Plants</u>		<u>Soviet-Owned Plants</u>	
	<u>Number</u>	<u>Employment</u>	<u>Number</u>	<u>Employment</u>
Heavy Machinery b/ <u>451/</u>	194	96,000	11	N.A.
General Machinery b/ <u>452/</u>	276	165,000	1	N.A.
Electrotechnical Equipment <u>453/</u>	160	175,000 c/	6	N.A.
Motor Transportation Equipment d/	30	34,600	0	0
Rail Transportation Equipment <u>454/</u>	10	29,000	1	N.A.
Shipbuilding <u>455/</u>	88	56,000	1	N.A.
Antifriction Bearings <u>456/</u>	7	7,900	1	3,200
Aircraft <u>457/</u>	1 e/	N.A.	0	0
Armaments <u>458/</u>	6 f/	16,650	g/	N.A.
Ammunition	N.A.	N.A.	N.A.	N.A.
Optical h/	17	28,400	0	0
<b>Total</b>	<u>789</u>	<u>608,550</u>	<u>21</u>	

a. These data account for about three-fourths of the total estimated employment of 810,000 in the engineering industries. Some of the remaining 200,000 workers are employed in privately owned plants, for which no comparable data are available. The remaining discrepancy in the figures is the result of incomplete information.

b. For items thus classified, see Table 32, p. 136, below.

c. As of December 1951.

d. Includes tractors. Estimate based on study of individual plants

e. Rehabilitated ex-Junkers plant, Dessau. Evidence indicates abandonment or indefinite postponement of the project.

f. Producing military transport vehicles.

g. No plants producing complete units. Some SAG and VEB plants produce repair and maintenance parts for Soviet equipment.

h. Includes only optical devices containing high-precision lenses (for photographic, laboratory, shop, medical, military use). Production gauges and non-optical precision testing devices are not included. Estimate based on study of individual plants

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50X1

50X1

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East German emphasis on production in the engineering industries reflects both Soviet demands for large quantities of capital equipment and East Germany's equipment requirements for its newly established heavy industries. In addition to exports to the USSR, which are believed to be only partially compensated deliveries, since the buyer fixes the prices, very large amounts of engineering industry production have been taken by the USSR as reparations. In 1952, for example, reparations ranged from 26 percent of planned production of mining and metallurgical equipment 459/ to 77.5 percent of ship construction 460/ and 79 percent of rail equipment. 461/ These percentages are considered typical of reparations deliveries in other engineering sectors. Data on reparations and other deliveries of engineering equipment to the USSR in 1952 and 1953 are given in Table 31.\*

### 3. Administrative Organization and Control.

With the establishment of the German Democratic Republic on 7 October 1949, there was created a Ministry for Machine Building. Its purpose was to serve as a general administrative and control apparatus for the area's engineering and armaments industries (insofar as the latter could be said to exist). The organization of the ministry generally followed that of its Soviet prototype, being divided into six main administrations as follows:

- a. Main Administration for Heavy Machine Building,
- b. Main Administration for General Machine Building,
- c. Main Administration for Vehicle Construction (Rail and Motor),
- d. Main Administration for Precision Mechanical and Optical Equipment,
- e. Main Administration for Shipbuilding, and
- f. Main Administration for Electrotechnical and Electrotechnical and Electronics Equipment.\*\*

\* Table 31 follows on p. 133.

\*\* Continued on p. 134.

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Table 31

Planned and Estimated Actual Deliveries to the USSR a/  
from East Germany of Selected Types of Engineering Equipment  
1952-53

Commodity Group	1952		1953	
	Planned	Delivered	Planned	Delivered
Heavy Machinery <u>462/</u>	193,551	N.A.	193,551	N.A.
General Machinery <u>463/</u>	3,110	N.A.	3,160	N.A.
Electrotechnical Equipment <u>464/</u>	50 Percent of Production	30-50 Percent of Production	50 Percent of Production	30-50 Percent of Production
Motor Transportation Equipment	N.A.	N.A.	N.A.	N.A.
Rail Transportation Equipment <u>466/</u>	N.A.	395,675	N.A.	N.A.
Shipbuilding <u>467/</u>	372,400	288,712	472,045	N.A.
Antifriction Bearings <u>468/</u>	120	N.A.	150	N.A.
Aircraft	N.A.	N.A.	N.A.	N.A.
Armaments	0	0	0	0
Ammunitions	N.A.	N.A.	N.A.	N.A.
Optical	5,000 <u>b/</u>	5,000 <u>b/</u>	5,000 <u>b/</u>	5,000 <u>b/</u>

a. Including reparations and government orders.

b. Value estimated to be the same as in 1951, when total deliveries of precision mechanical, optical, and photographic goods to the USSR amounted to DME 181 million. 465/ Optical goods alone are believed to have accounted for 2.8 percent of the total, or about DME 5 million.

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Some months after the return to East German control of 66 Soviet-owned corporations on 1 May 1952, the East German government thoroughly overhauled its top-level control apparatus for the engineering industries. The announced purpose of the action was to spread the task of supervision and control over a wider base in order to contribute more effectively to the "realization of the Five Year Plan goals and the socialization of the German Democratic Republic." Its actual purpose was to plug numerous gaps in control and reduce serious inefficiency and irregularities. In a ministerial decree dated 19 December 1952 and effective on 1 January 1953, the Ministry for Machine Building was dissolved. In its stead there were created three new ministries patterned along the lines of the parent body and designated as follows:

- a. Ministry for Heavy Machine Building,
- b. Ministry for General Machine Building, and
- c. Ministry for Transportation Equipment and Agricultural Machine Building.\*

The main administrations of the previous ministry were reshuffled accordingly, but the planned production goals were not affected by the reorganization.

The duties of the main administrations include the following:

- a. Liaison between the production facilities and the various units of the State Planning Commission.
- b. Allocation of investment funds, materials, skilled manpower, engineering cadres, and specialists among its various plants or groupings of plants (VEB's and VVB's) through the use of a complex system of priorities and controls.

\*  Ministry of Armaments. This body is actually a successor of the Secretariat for Economic Affairs (Buero fuer Wirtshaftsfragen), whose functions included supervision of such armaments production as was carried on. The new ministry includes several main administrations directly concerned with armaments.

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c. Assignment of production quotas or levies to its plants and plant groupings for monthly, quarterly, and yearly periods in compliance with Plan schedules.

d. Maintenance of technological research facilities for the determination of quality standards, commodity specification, production norms, and so on.

4. Production Goals under the Five Year Plan (1951-55).

The goals for the engineering industries under the October 1951 version of the Five Year Plan are shown in monetary terms in Table 32.\* Since these figures were first published, however, there have been frequent revisions. The planned objectives for the engineering industries during the period 1951-55 include the following:

a. Further integration of these industries into the over-all economy of the Soviet Bloc.

b. Increased regional self-sufficiency through the development of certain new engineering industries.

c. Continued supply of large amounts of equipment to the USSR.

d. Provision of necessary capital goods for the rapidly expanding East German industries.

e. Readiness for conversion to all-out production of armaments on short notice.

Among the basic industries to be expanded, from very low levels in some instances, are coal and metallic-ore mining and quarrying, ferrous and nonferrous metallurgy, electric power generation and distribution, shipbuilding and naval components (including ordnance), communications, agricultural equipment, and transportation. These objectives will require production of relatively large quantities of heavy electrical machinery, heavy construction equipment, mining and metallurgical plant machinery, and many specialties now in critically short supply, for example, antifriction bearings for special applications.\*\*

\* Table 32 follows on p. 136.

\*\* Continued on p. 139.

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Table 32

Planned Production of Selected Engineering Industries in East Germany  
1951-55 469/

Million DME

Plan Item Number	Plan Item	1951	1952	1953	1954	1955	Comment
<u>Heavy Machine Building</u>							
21 00 000	Power Plant Machine Building	215	390	510	617	644	For steam turbines, quite reasonable.
22 00 000	Machine Tools and Forging and Press Equipment	161	203	224	245	275	Considered too low.
23 00 000	Tools (Not Including Commercial Tools and Casting Equipment)	188	205	220	250	275	
24 00 000	Metallurgical and Mining Equipment	217	389	466	469	465	Reasonable.
25 00 000	Equipment for the Coal Industry	57	54	61	76	76	Reasonable.
26 00 000	Transportation Equipment	203	225	226	260	283	
	Total	<u>1,041</u>	<u>1,466</u>	<u>1,707</u>	<u>1,917</u>	<u>2,018</u>	
<u>General Machine Building</u>							
27 00 000	Chemical, Pump, and Compressor Equipment	201	270	328	395	454	
28 00 000	Food and Beverage Equipment	116	82	84	87	90	
29 00 000	Refrigeration Installations	48	38	50	58	68	
36 00 000	Air Conditioning Installations	16	21	22	25	28	
31 00 000	Glass Industry Equipment	7	8	8	8	9	
32 00 000	Agricultural Machines	102	86	90	95	102	Reasonable.
33 00 000	Construction and Roadbuilding Machinery	46	105	130	150	160	Figures considered high in view of the fact that excavators are not included.

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Table 32  
Planned Production of Selected Engineering Industries in East Germany  
1951-55 <sup>469/</sup>  
(Continued)

		Million DME					
Plan Item Number	Plan Item	1951	1952	1953	1954	1955	Comment
<u>General Machine Building (Continued)</u>							
34 00 000	Pages missing in document. Values shown are those needed to obtain known totals. Category possibly included machinery for textiles and other light industry.						
36 00 000							
37 00 000	Fire-Fighting Equipment	<u>12</u>	<u>12</u>	<u>11</u>	<u>11</u>	<u>11</u>	
41 00 000	Paper Industry Machines	13	18	19	20	20	
42 00 000	Graphics Industry Equipment	58	55	60	63	66	
43 00 000	Woodworking Equipment	23	19	19	19	19	
44 00 000	Welding Equipment	9	10	11	12	13	
45 00 000	Industrial Fittings	87	130	160	185	210	
39 00 000	Other Products of Machine Building Industry (Not Including Contract Work and Repairs)	102	124	145	190	233	
	Total	<u>982</u>	<u>1,100</u>	<u>1,294</u>	<u>1,486</u>	<u>1,642</u>	
<u>Vehicle Building</u>							
46 11 000	Rail Vehicle Building	350	374	436	493	561	Reasonable.
46 12 000	Automobile and Tractors	579	720	816	915	1,039	Tractor figures are considered reasonable.
46 13 000	Shipbuilding	291	415	487	583	661	Reasonable.
	Total	<u>1,220</u>	<u>1,508 a/</u>	<u>1,739</u>	<u>1,991</u>	<u>2,260 a/*</u>	

\* Footnote for Table 32 follows on p. 138.

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Table 32

Planned Production of Selected Engineering Industries in East Germany  
1951-55 469/  
(Continued)

Plan Item Number	Plan Item	1951	1952	1953	1954	1955	Comment
<u>Other</u>							
51 00 000	Electrical Products	1,550	1,656	1,864	2,133	2,451	1951 -- Seems low. 1955 -- Doubtful.
58 00 000	Precision Instruments and Optical Products	523	622	729	827	942	
	Total	<u>2,073</u>	<u>2,278</u>	<u>2,593</u>	<u>2,960</u>	<u>3,393</u>	
	Grand Total	<u>5,316</u>	<u>6,352</u>	<u>7,333</u>	<u>8,354</u>	<u>9,313</u>	

a. Totals do not check, because of rounding.

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Meeting the equipment demands for this expansion and providing a surplus for intra-Bloc trade will require an expansion of production to some  $2\frac{1}{2}$  times the 1938 level. Such a production would approximate the peak reached in 1944-45. The available evidence indicates that the planned objectives are beyond the resources of the East German economy. Table 33\* contains estimates of the production of the engineering industries for the period 1952-55. (It should be noted that the industrial classification employed here differs from that in Table 32.) The fragmentary data in Table 34\*\* on estimated employment and investment expenditures in the engineering industries in 1953 and 1955 give further indications of the expected extent of the expansion program.

5. Comments on Selected Industries.a. Ammunition.

Available information indicates that in the event of hostilities, each country in the Soviet Bloc will be assigned production quotas for certain types of ammunition. Ammunition production in East Germany has so far received a low priority, however. There are no known large-scale facilities for loading or assembling ammunition for the Soviet occupation forces or for the East German People's Police (Volkspolizei or "Vopo").

b. Armaments.\*\*\*

There is little or no evidence of production of armaments in East Germany for the paramilitary People's Police or for the USSR despite many rumors to the contrary. A definite program exists, however, for the creation of a supply and armaments structure supporting the paramilitary forces. This program is still in an embryonic stage, with no evidence of implementation except for some production of military transport vehicles. This activity is absorbing a good percentage of the area's motor vehicle production capacity. There are no known efforts to rehabilitate facilities for the manufacture of small arms, artillery, armored combat vehicles, or other heavy weapons.

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\* Table 33 follows on p. 140.

\*\* Table 34 follows on p. 141.

\*\*\* Defined here to include only small arms, artillery and other heavy weapons, armored combat vehicles, military transport vehicles, and similar equipment.

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Table 33

Estimated Production of Selected Engineering Industries  
in East Germany  
1952-55

Commodity Group	Million DME			
	1952	1953	1954	1955
Heavy Machinery	N.A.	N.A.	N.A.	N.A.
General Machinery	N.A.	N.A.	N.A.	N.A.
Electrotechnical Equipment <u>470/</u>	706 <u>a/</u>	N.A.	N.A.	N.A.
Motor Transportation Equipment	N.A.	N.A.	N.A.	N.A.
Rail Transportation Equipment <u>472/</u>	511 <u>c/</u>	586	N.A.	N.A.
Shipbuilding <u>473/</u>	303	N.A.	N.A.	N.A.
Antifriction Bearings <u>474/</u>	6.83	N.A.	N.A.	N.A.
Aircraft	N.A.	N.A.	N.A.	N.A.
Weapons <u>475/</u>	80 <u>d/</u>	255 <u>e/</u>	N.A.	N.A.
Ammunition	N.A.	N.A.	N.A.	N.A.
Optical <u>b/</u>	140	186	210	233

a. Includes electron tubes, motors, generators, transformers (power type), wire and cable, power turbines (steam and hydro), and batteries. Data on other items (such as radio, television, and electronic components) are not available.

b. Figure for 1952 estimated on the basis of  information on individual plants. Figures for 1952-54 estimated on the basis of information plus the assumption that the proportion of total electrotechnical production of the Zeiss plant will not change appreciably. 471/

c. Exclusive of locomotives (steam, electric, and diesel) and mine cars.

d. Includes specialized military transport vehicles, quartermaster supplies, and miscellaneous equipment. There is no other known armaments production of consequence.

e. Military transport vehicles only.

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Table 34

Estimated Employment and Investment Expenditures  
of Selected Engineering Industries in East Germany  
1953 and 1955

Commodity Group	Employment		Investment (Million DME)	
	1953	1955	1953	1955
Heavy Machinery <u>476/</u>	96,000	N.A.	N.A.	N.A.
General Machinery <u>477/</u>	165,000	N.A.	N.A.	N.A.
Electrotechnical Equipment <u>478/</u>	175,000	230,000	49	17
Motor Transportation Equipment <u>a/</u>	34,600 <u>d/</u>	N.A.	N.A.	N.A.
Rail Transportation Equipment <u>479/</u>	29,000	39,150	N.A.	N.A.
Shipbuilding <u>480/</u>	63,700	N.A.	68	1
Antifriction Bearings <u>481/</u>	7,900	10,200	N.A.	N.A.
Aircraft	N.A.	N.A.	N.A.	N.A.
Armaments <u>482/</u>	16,650	22,700	1,200	N.A.
Ammunition	N.A.	N.A.	N.A.	N.A.
Optical <u>a/</u>	28,400 <u>b/</u>	35,600 <u>c/</u>	N.A.	N.A.

a. Estimates based on a study of individual plants

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b. Plus 7 percent.

c. Plus 14 percent.

d. Excluding tractors.

e. Military transport vehicles only.

c. Aircraft.

The East German aircraft industry has been practically nonexistent since 1945, by which time the major aircraft and aircraft components plants were very badly damaged. Rehabilitation of the Junkers complex of aircraft production facilities at Dessau has been reported [redacted] as being well along in the planning stage. [redacted] the entire project was scrapped or postponed indefinitely after the June 1953 rioting.

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S-E-C-R-E-Td. Antifriction Bearings. 483/

Antifriction bearings (as distinct from the commoner journal, sleeve, or friction types) are indispensable in the production of countless items of electromechanical equipment with rotating parts or moving surfaces in contact and under balanced loads. Since every industry is a consumer of these bearings to some degree, they are high on the list of critical industrial and war-making materials.

Although East Germany's production for 1951 was under 5 percent of the total production of the Soviet Bloc, it represented 43 percent of the total production of the European Satellites and was exceeded only by Czechoslovakia's output. East Germany's production satisfied 50 percent of its domestic needs in that year, and the balance was supplied by Czechoslovakia, the USSR, Western Europe, and other sources. Production of anti-friction bearings to the value of DME 63 million was originally planned for 1955. This is about three-fourths more than the planned figure for 1951. Present indications are that this goal will be attained despite the continuing shortages of ferroalloying metals, abrasives, and grinding equipment.

Material shortages are being overcome to some degree through the use of generally inferior substitutes (such as carbon steels instead of alloy steels) and through imports of critical metals and alloys by devious means from non-Bloc sources. Sintered iron with oil-absorbent properties and plastics also are reported to be used for certain types of bearings. The chief bottlenecks have been tube and bar steel for bearing rings, sheet metal for raceways and cages, steel wire for making balls, and steel balls in the larger diameters. 484/ It is expected that there will be an appreciable surplus of bearings for intra-Bloc export in 1955.

e. Mining Equipment.

East Germany's planned expansion in heavy industry is closely related to the problem of mine mechanization. The planned increase in the production of iron ore and coal will be difficult to achieve without further extensive mechanization of mining operations. There is no evidence that the USSR intends to supply East Germany with any significant amount of mining machinery even for the uranium ore mining operations under SAG Wismut. The area apparently has the



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technological know-how to build mining machinery. Soviet prototypes have been followed in most cases, but these have been found to be unsuitable for operations in East Germany and probably will not be produced in quantity in spite of Soviet pressure.

f. Motor Vehicles.

Development of the automotive industry has a high priority. Both current production and technological development are being focused on military vehicles such as heavy trucks, military tractors, and combat and reconnaissance vehicles which are operable over rough terrain. Some of this output goes to the East German paramilitary forces and for the People's Police.

g. Rail Transportation Equipment.

Production of rail transportation equipment has a priority status within the engineering industries, and the available plant facilities are capable of turning out sizable numbers of freight and passenger cars. Some estimates of production of rail transportation equipment during the period 1951-55 are contained in Table 35.\* The most recent year for which relatively dependable data are available is 1951. Other data shown are approximations only.

Soviet reparations demands in this field have been very large. Estimated reparations deliveries of rail transportation equipment in 1952 (the only recent year for which dependable data are available) are shown in Table 36.\*\*

In both current production and maintenance of existing equipment, East Germany is most deficient in main line steam locomotives. There is firm evidence that several rail equipment plants have been or are being retooled for production of automotive transport vehicles for military use.

h. Tractors.

While there has not yet been a program of forced agricultural collectivization in East Germany comparable to that

\* Table 35 follows on p. 144.

\*\* Table 36 follows on p. 145.

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Table 35

Estimated Production of Rail Transportation Equipment in East Germany  
1951-55 485/

	1951		1952		1953		1954		1955	
	Quantity	Value (Thousand DME)	Quantity	Value (Thousand DME)	Quantity	Value (Thousand DME)	Quantity	Value (Thousand DME)	Quantity	Value (Thousand DME)
<b>Locomotives</b>										
Main-Line Passenger, Steam	0	0	0	0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Small, Steam	N.A.	N.A.	N.A.	N.A.	26	N.A.	N.A.	N.A.	30	N.A.
Road, Type	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Industrial Plant Type (Steam, Electric, Diesel, and/or Combination)				13,950						
Mining	180	8,250	218	13,950	234	N.A.	N.A.	N.A.	N.A.	N.A.
	N.A.	5,000	N.A.	28,000	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Rolling Stock</b>										
Main-Line Passenger Cars	670	184,250	620	170,500	943	N.A.	N.A.	N.A.	1,400	N.A.
Main-Line Freight Cars	5,200	231,857	6,000	270,765	5,527	N.A.	N.A.	N.A.	9,000	N.A.
Narrow-Gauge Industrial Plant Cars	2,700	54,000	2,400	48,000	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Mine Cars	6,000	1,200	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Interurban Elevated Railway	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Street Railway	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Other Rolling Stock	61	2,257	105	3,885	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total	N.A.	N.A.	N.A.	N.A.	N.A.	586,000 <sup>a/</sup>	N.A.	N.A.	N.A.	N.A.

a. Total estimated.

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Table 36

Estimated Deliveries to the USSR from East Germany  
of Rail Transportation Equipment as Reparations  
1952 486/

	<u>Quantity</u>	<u>Value</u> (Thousand DME)
Locomotives		
Steam	0	0
Mine	161	N.A.
Industrial Plant	102	N.A.
Rolling Stock		
Passenger Coaches, Steel, 1,524 mm (5 foot) Gauge	570	N.A.
Boxcars	0	N.A.
Refrigerator Cars	2,200	N.A.
Flatcars	0	N.A.
Tank Cars	0	N.A.
Other Types of Freight Cars	250	N.A.
Hopper Cars	800	N.A.
Mine Cars	N.A.	N.A.
Total	<u>6,390</u>	<u>402,000</u>

in the USSR and the other Satellites, farm mechanization is one of the major objectives of East German planning. There are, moreover, military as well as agricultural requirements for tractors inasmuch as they are also a basic type of military vehicle. During the initial Soviet efforts to collectivize East German farms, the need for tractors was so acute that some were supplied by the USSR, although they were also being demanded from East Germany as reparations.

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In expanding tractor production, East Germany is emphasizing the tracked, or caterpillar types. Facilities for the production of tracked vehicles may, of course, be readily converted to the manufacture of tanks. The area is considered capable of making approximately 8,000 units in 1953. This is to be expanded to 12,000 units by 1955. Attainment of this figure in 1955 will require an expansion of the capacity of the four plants presently known to be making tractors.

i. Chemical Processing Equipment.

The East German chemicals industry includes enterprises producing explosives, liquid fuels and propellents, gelatines, photochemicals, and other military end-items in addition to large quantities of basic chemicals for various industrial processes. The area's manufacture of chemical equipment encompasses the entire range of heavy, general, and light machinery industries, including plumbing, ceramics, glass, and hardware, as well as a handful of known producers of specialized apparatus designed primarily for chemicals production.

j. Heavy Construction Equipment.

With few exceptions, production of heavy construction equipment is dispersed through many East German industrial plants rather than being limited to a few plants of distinctive type. Any plant tooled for heavy or general machine assembly can turn out items in this classification. An outstanding instance is the world-famed Bleichert complex at Leipzig, which turns out cranes, trailers, winches, and other essential items for the construction industry in addition to its basic lines of mining and metallurgical machinery. A second instance is the Buckau-Wolf Machine Plant at Magdeburg-Buckau, which assembles excavators and pumps for the building industry in addition to its basic specialty of marine diesel engines.

As in the case of chemicals processing equipment, the factors of product diversification and plant dispersion (some estimates run to 100 or more plants) have so far precluded adequate estimates of the production of heavy construction equipment.

S-E-C-R-E-Tk. Metallurgical Plant Equipment.

The great importance of this sector of East Germany's industrial expansion may be gauged from the planned production of metals and metal products.\* Efforts to meet these goals will certainly put a strain on the East German metallurgical industry. Serious shortages of materials and skilled labor will have to be overcome if production of metallurgical plants is to be increased significantly. The dimensions of the program for the metallurgical equipment industry are indicated in Table 37, which gives indexes of the value of planned production, imports, and exports. 487/

Table 37

Indexes of the Value of Planned Production, Imports, and Exports of Metallurgical Equipment in East Germany a/  
1951-55

	1951 = 100				
	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>
Production	100	200	243	235	212
Imports	100	80	125	13	13
Exports <u>b/</u>	100	137	153	168	289

a. Based on the October 1951 version of the Five Year Plan.

b. Exclusive of reparations.

1. Machine Tools.

East Germany accounted for some 52 percent of total German production of machine tools before the war. Most of the area's machine tool manufacturing plants escaped the dismantling and looting to which other capital equipment plants were subjected, and production capacity in this field, therefore, remained relatively unimpaired in the postwar period. Many of the chief facilities were, however, expropriated by the USSR and organized as SAG's. By June 1953, following the return of some plants to East German administration in preceding years, East German nationalized facilities turned

\* See B, 2, and B, 3, above.

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out about 80 percent of the total production of machine tools. The remaining production was about equally divided between SAG's and privately owned plants.

In 1948 the industry produced some 7,500 units and in 1951 about 20,000 units. The objective for 1955 is 32,000 units, including planing, grinding, jig-boring, boring and milling, and broaching and honing machines, slotters, key-seaters, lathes of all types, and combinations of these. Planned production of certain types of machine tools in 1953 and 1955 is shown in Table 38.

Table 38

Planned Production of Representative Types of Machine Tools  
in East Germany  
1953 and 1955 a/

	Number of Units	
	1953	1955
Planers and Slotters	952	1,088
Engine Lathes	6,888	7,872
Turret Lathes and Automatics	2,212	2,528
Drill Presses and Horizontal Boring Mills	7,840	8,960
Milling Machines	2,744	3,136
Grinding Machines	5,908	6,752
Gear-Cutting Machines	672	768
Combined and Special Machines	784	896
Total	<u>28,000</u>	<u>32,000</u>

a. Estimates based upon study of individual plants.

m. Shipbuilding.

Major ship construction is new to this area, for eastern Germany formerly did not have yards employing more than 5,000 persons. The principal German shipbuilding facilities were located in the western part of the country, and the small yards in eastern Germany were largely wiped out by war damage and Soviet looting. Ship

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construction at all available facilities was nevertheless begun on a high-priority basis almost immediately after the war. The shipyards, which had been privately owned, were either expropriated by the USSR or nationalized under Soviet auspices.

The Five Year Plan calls for construction of a national mercantile and fishing fleet, plus substantial contributions to the Soviet merchant fleet. Shipyards have accordingly been overhauled, expanded, and reequipped, and new yards have been built to handle repairs of commercial vessels up to 22,000 gross registered tons (GRT)\* and construction of fishing, patrol, and similar craft up to 10,000 GRT. Data on actual and planned shipbuilding in 1952, 1953, and 1955 are contained in Table 39.\*\*

The Wismar Repair Yard, a consolidation of various small yards, was established early in 1947. Expansion continued throughout 1948 with the establishment of new facilities at Stralsund, Damgarten, Wolgast, and Warnemuende. The labor force of shipyards expanded from barely 2,000 in 1946 to about 27,000 by 1949 and to 56,000 in 1953. In the latter year, the Federation of Nationalized Shipyards (Vereinigung Volkseigener Werfte -- VVW) was formed to consolidate and speed up the ambitious construction program. All major yards have since been converted to VEB's under the supervision of the Main Administration for Shipbuilding of the Ministry for Transportation and Agricultural Machine Building.

The priority status of the industry is reflected in its relatively large consumption of steel. Total consumption for shipbuilding, including plate and structural sections, is expected to average 5 percent of the total East German steel output from 1951 to 1955.

Seventy-seven and one-half percent of total East German ship construction is delivered to the USSR as reparations. Another 17.5 percent goes to East Germany's Sea Police and fishing fleet, leaving 5 percent for export. The latter consists mostly of small craft for Rumania and Poland.

\* Gross register tonnage is a measure wherein the entire internal cubic capacity of the vessel is expressed in registered tons (100 cubic feet to the ton).

\*\* Table 39 follows on p. 150.

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Table 39

Actual and Planned Shipbuilding in East Germany  
1952, 1953, and 1955 488/

	1952 (Actual Construction)		1953 (Planned Construction)		1955 (Planned Construction)	
	GRT	Estimated Value (Thousand DME)	GRT	Estimated Value (Thousand DME)	GRT	Estimated Value (Thousand DME)
Seagoing Vessels (Over 1,000 GRT)	3,000	10,500	41,200	144,200	N.A.	N.A.
Seagoing Vessels (Under 1,000 GRT)	68,440	205,320	75,456	227,000	N.A.	N.A.
Inland-Type Vessels (Over 1,000 GRT)	0	0	6,000	21,000	N.A.	N.A.
Inland-Type Vessels (Under 1,000 GRT)	24,919	62,938	47,723	120,000	N.A.	N.A.
Naval Police Craft (Over 1,000 GRT)	0	0	8,600	4,300	N.A.	N.A.
Naval Police Craft (Under 1,000 GRT)	4,935	24,675	10,308	51,540	N.A.	N.A.
Total	<u>101,294</u>	<u>303,433</u>	<u>189,287</u>	<u>568,040</u> <sup>a/</sup>	<u>N.A.</u>	<u>497,030</u>

a. Ship construction valued at DME 391,766,000 is scheduled for 1953, the carry-over of uncompleted work from previous years raises the total to the amount shown.

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6. Conclusions.

The production of East German engineering and armaments industries will not attain the planned level by 1955. This conclusion is based on the following factors:

a. Low labor morale, as reflected by the workers' open hostility toward the East German regime, the abnormal proportion of rejects in many lines of production, and frequent acts of sabotage.

b. Shortage of skilled labor and engineering and management personnel. The supply of skilled labor, foremen, technicians, and scientific specialists has been considerably reduced by the following actions, which more than offset the effects of accelerated training programs and the recruiting of women:

(1) Arbitrary dismissals on charges of political "unreliability."

(2) Mass arrests, growing numbers of defections, and "migration" to the USSR under "contract" (that is, forced evacuation or expatriation).

(3) Intensive recruiting for East German paramilitary forces, including the People's Police.

c. Limited know-how in matters of industrial design, engineering, and plant erection, especially in the newer industries under expansion. This, coupled with the use of inferior substitutes for many scarce materials, has resulted in important construction defects and equipment failures.

d. Difficulties in economic planning. Production quotas often reflect Soviet exigencies and pressures rather than East German capabilities. Details of the plans, reflecting both Soviet and East German objectives, are frequently inconsistent. As a consequence, the production of even minimal amounts of equipment for domestic plant expansion has lagged. Plan priorities and quotas are frequently manipulated for reasons of political expediency.

S-E-C-R-E-TV. Transportation and Communications.A. Rail Transportation.1. Conclusions.

The present situation of the East German railroad system is an uncertain one. Performance statistics during the past few years show certain improvements, which, however, have barely kept pace with the increased requirements of the expanding East German economy. Furthermore, increased performance has not been achieved by any substantial improvement or expansion of rolling stock and other equipment but rather by more intensive use of the available equipment, mainly through reducing turn-around time of freight cars between loadings.

Announced plans for increases in rolling stock and locomotives, even if achieved, will leave the railroads of the area with fewer freight cars and locomotives than in prewar years. Only a small portion of the trackage dismantled since World War II is to be rebuilt. The planned expansion of rail transportation performance, which is consistent with the planned expansion of the over-all economy, is to be achieved largely by a further increase in the use of available equipment.

All of this, however, does not necessarily mean that the railroads in East Germany will not be able to meet the essential traffic demands imposed on them. Improvisations and the possible imposition of priorities will probably enable the railroads to perform the most necessary tasks. Soviet authorities, who are responsible for the present state of the railroads, apparently consider the prewar German railroad system, with its ample rolling stock and extensive trackage, as an unnecessary luxury.

2. Administration.

At the time of the German surrender in 1945, the railroads were able to handle only the most essential traffic. Railroads in each of the four occupation zones became independent operating units, receiving orders from their respective zonal headquarters until 1948. Railroads of the American, British, and French Zones were combined to form the present German Federal Railway (Deutsche Bundesbahn). Soviet Zone railroads, known as the

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German State Railroad (or Deutsche Reichsbahn), are still, of course, a separate system.

In 1949, when the German Democratic Republic was formed, the Main Administration for Transportation was changed to the Ministry of Transportation. Subordinated to the Ministry are three Directorate-Generals for rail, water, and automotive transportation. The Directorate-General of the German State Railroad, headed by a Director-General, includes 16 departments organized on a functional basis and headed by a deputy or administrative director. 489/

Under the Directorate-General are also eight regional directorates, each of which includes a number of departments similar to those at the main headquarters in Berlin. Headquarters for the regional directorates are at Berlin, Cottbus, Dresden, Erfurt, Greifswald, Halle, Magdeburg, and Schwerin. 490/ Each region is subdivided geographically into a varying number of divisions, which are graded into four classes on the basis of size. The Berlin region has 7 divisions; Cottbus has 2; Dresden and Erfurt have 6 each; Greifswald, Magdeburg, and Schwerin have 4 each; and Halle has 5. Plans were once made to merge the Greifswald region with the Schwerin region as an economy measure, but as yet there are no indications that the plan has materialized. 491/

One of the most important actions taken by the East German government in recent months was the issuance of a decree on 27 November 1952, which amalgamated all previous railroad agencies concerned with the recording, administration, and employment of rolling stock. 492/ Effective 1 December 1952, a central rolling stock department was set up as an independent railroad agency directly responsible to the Director-General in Berlin. Centralization of these activities probably was ordered because of the shortage of freight cars experienced at certain seasons.

### 3. General Description of the System.

#### a. Rail Network.

About 12,500 route-kilometers of standard-gauge line make up the present East German rail network. This is approximately a 33-percent reduction from the 19,000 kilometers in

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the same area at the end of World War II. 493/ The network was heavily damaged during the war and subsequently stripped of much of its equipment and facilities to meet Soviet reparations demands. Most double-track lines were reduced to single-track and a considerable amount of equipment vanished into the USSR. Overloading of track and equipment and lack of maintenance have resulted in a high rate of depreciation. Currently, schedules are slow, passenger service is very poor, and mechanical failures are frequent.

While the East German railroads are somewhat inferior to those of West Germany, they nevertheless comprise a fairly evenly distributed single-track network capable of moving large volumes of traffic. The few double-track lines in the area are centered around the cities of Berlin, Halle, Leipzig, Erfurt, Chemnitz, Dresden, and Magdeburg. The only double-track line that connects West Germany and East Germany runs from Hanover to Magdeburg, and the Berlin-Frankfurt/Oder line is the only remaining double-track line connecting East Germany with Poland. The small amount of multiple-track line (line with three or more tracks) left in the area is concentrated in Berlin and vicinity.

During the past 2 or 3 years, there has been some rebuilding and repairing of East German lines, as well as construction of the Berlin "Outer Ring" line. A few of the previously double-track lines that were reduced to single-track, such as the Jueterbog-Erfurt, Rostock-Warnemuende, and Dresden-Goerlitz lines, have now been restored to double-track. Other construction includes new and longer sidings, new bridges, and improvement of stations at the Polish border. The only important postwar developments in railroad electrification have taken place on the Grunan to Koehigs Wusterhausen, Jungfernheide to Falkensee, Spandau West to Staaken, and Teltow to Lichterfelde Sued lines -- all in the Berlin area. 494/

Though the rail network is mostly single-track line, it is a good basic system. The area has little need for additional lines, since the system has the line-density pattern necessary to serve the present economy efficiently. The only improvements needed to restore the system to prewar efficiency are double-tracking of certain lines and relaying of certain dismantled lines. Greatest density of lines occurs in the area's industrial southern section. In the north central area there is a sparse network which adequately serves the demands of a dairying and stock-raising economy.

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Nine main east-west rail routes cross East Germany from the Polish border to West Germany. All lines except the Berlin-Frankfurt/Oder line are single-track. Generally, they have similar facilities and approximately equal capacities throughout. These nine east-west through routes are as follows:

- (1) Stettin -- Neubrandenburg -- Luebeck
- (2) Stettin -- Berlin -- Wittenberge
- (3) Kostrzyn -- Berlin -- Stendal
- (4) Frankfurt/Oder -- Berlin -- Brandenburg --  
Magdeburg
- (5) Frankfurt/Oder -- Berlin -- Guesten --  
Nordhausen -- Eichenberg
- (6) Guben -- Cottbus -- Wittenberge -- Magdeburg
- (7) Forst -- Cottbus -- Leipzig -- Erfurt --  
Eisenach
- (8) Horka -- Riesa -- Leipzig -- Erfurt --  
Eisenach
- (9) Goerlitz -- Dresden -- Chemnitz -- Plauen

Berlin, formerly the principal rail center in Central Europe, is the main rail hub for East Germany. Because of the zonal division of Germany and Berlin, rail operations into Berlin are made difficult for the three Western powers. East Germany has, however, granted the Western powers permission to operate a limited number of trains each day over the Reichsbahn tracks from West Germany into Berlin.

As a result of this multi-nation control of Berlin, confusion, blockades, and counter-blockades have been the rule. To prevent a Western blockade of Soviet rail traffic through Berlin, the Soviet authorities started to build a line around Berlin just after the Allied airlift of 1948-49. This line, made by constructing links between the existing lines, completely encircles Berlin without crossing the Allied sectors of the city. This

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"Outer Ring" was put into operation during July 1951. 495/ Meanwhile, construction is continuing on an "Inner Ring."

Radiating out of Berlin are major lines serving the transportation needs of the country and connecting with lines in Poland, Czechoslovakia, and West Germany. Important rail junctions on the Polish border are Grambow, Kostrzyn, Frankfurt/Oder, Guben, Forst, Horka, Goerlitz, and Hagenwerder. The main crossing points into Czechoslovakia are Schona and Zittau. East and West German lines connect at twelve strategically important junction points on the border. Because of current Soviet traffic restrictions, some of these border-junctions are out of operation, but they could be put into operation within a short time because the track is in good condition up to the border on each side.

Considerable deterioration of the rights-of-way of both main lines and branch lines has been reported. Ties and rails need replacement in many instances, and switches and other equipment are in poor condition. Maintenance work has in general been neglected. 496/

The ability of the Reichsbahn to move traffic varies directly with the capacity of its terminals and classification yards. Like other industrial countries, East Germany employs flat, gravity, and hump yards, with the hump yards classifying most of the traffic. Both the gravity and hump yards are generally equipped with automatic switching devices and retarders for reducing the speed of cars.

There are many modern classification yards in the country, but their total capacity for classifying freight is much smaller today than it was before and during the war. This reduction in classification capacity is directly attributable to Soviet removal of rails as reparations. Reduced freight-handling capacity in the yards has not affected the adequacy of the rail system, however, because of the smaller requirements of the East German economy since the war.

Table 40\* gives a list of some of the more important East German yards with their car capacities and their average daily car handlings. 497/

\* Table 40 follows on p. 157.

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Table 40

## Capacity and Traffic of Freight Yards in East Germany

<u>Yard</u>	<u>Maximum Car Capacity</u>	<u>Average Number of Cars Handled Daily</u>
Bad Kleinen	900	680
Frankfurt/Oder	1,300	950
Guestrow	700	270
Hagenow	800	222
Lichtenberg	1,800	800
Pankow	1,500	1,125
Rostock	800	500
Rummelsburg	1,300	850
Berlin/Schoeneweide	1,500	1,475
Berlin/Tempelhof	1,200	810
Wittenberge	1,500	610
Wustermark	600	550

b. Equipment.

Although railroad equipment manufacturers and repair shops are producing at capacity levels, the inventory of locomotives and cars has not shown an appreciable increase since the end of the war. Practically all the new rolling stock produced in East Germany has been taken by the USSR as reparations. Cannibalization due to the lack of spare parts has also contributed greatly to the failure to meet planned increases in the inventory of rolling stock.

A count of freight cars in East Germany on 15 March 1953 revealed a total of 125,450 units, of which 27,399, or 22 per cent, were classified as nonoperational. 498/ This shows the poor state of the rolling stock inventory. To help alleviate the car shortage, the USSR reportedly has returned all old rolling stock which was seized as reparations early in the postwar period. In January 1953, the last 20,000 cars were returned. 499/ Ordinarily, this would have improved the situation, but because of the poor condition of the returned cars, the amount of operable equipment increased very little. The action did, however, provide more cars

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for cannibalization. Over a period of time, the increase may be reflected in a larger number of operable cars.

There is a shortage of motive power as well as of cars in East Germany. Furthermore, the shortage of locomotives is aggravated by insufficient quantities of high-quality coal, lubricants, bearings, and spare parts. Although the country manufactures enough locomotives to supply its own needs, the build-up of its locomotive inventory is still hampered by Soviet requirements.

The locomotive inventory of East Germany on 24 May 1953 consisted of 5,342 operating units and 1,366 nonoperational units, 500/ all of which are steam-powered.\* The present serviceability rate of approximately 80 percent is a substantial gain over the 1946 rate of 52 percent but is still short of the 1940 rate of 90 percent, as a result of the withdrawal of a large number of serviceable East German locomotives to the other Bloc countries, the transfer to Polish administration of German areas in which substantial repair facilities were located, and the removal by the USSR of great amounts of repair equipment and locomotive parts.

Table 41\*\* gives the letter designation, use, series, wheel arrangement, and average tractive effort of different types of locomotives in use on East German railroads.

c. Repair Shops.

East German repair shops have adequate facilities for maintaining the present operable inventory of locomotives and rolling stock of the Reichsbahn, provided that the railroads are not called upon to move a substantially greater amount of traffic. War-damaged line facilities have been largely rebuilt, and shops dismantled by the USSR after the war have to some extent been put back into service. There are 25 railroad repair shops for standard-gauge locomotives and freight and passenger cars. In addition, there are three shops for the maintenance of narrow-gauge stock.

\* Figures are not available on the number of electric locomotives, which are used only in the Berlin area.

\*\* Table 41 follows on p. 159.



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Table 41

Types of Locomotives in Use on Railroads in East Germany  
1952 501/

Letter Designation	Use or Type	Series	Wheel Arrangement	Average Tractive Effort (Pounds)
S	High-Speed Passenger Train	01-09	2-6-0 or 2-6-2	24,000
P	Passenger Train	20-29	2-6-0	20,000
PT	Passenger Train, with Tender <u>a/</u>	60-79	N.A.	13,000
G	Freight Train	30-59	2-8-2, 2-10-0, and 0-8-0	40,000
GT	Freight Train, with Tender <u>a/</u>	80-89	2-8-2, 0-10-0, and 2-10-2	30,000
KST	Coal-Dust Burning <u>b/</u>	N.A.	N.A.	N.A.

a. Tank locomotives which carry their water and fuel supplies on the locomotive frame.

b. Locomotives which have been converted to burn coal dust instead of coal. Apparently they include several classes and series. In December 1951 there were only 79 such locomotives in the country.

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Table 42\* shows the location and personnel strength of the repair shops as well as the type of repairs performed and the directorate which controls the shop. The production of these shops is discussed in a later section.

#### 4. Planned and Actual Performance.

##### a. Traffic.

Rail traffic in East Germany can be classified as either domestic or international, with reparations traffic accounting for the bulk of the international shipments. Reparations traffic is made up of many commodities, but the most important ones are coal and other fuels, machinery, chemicals, fissionable materials, and construction materials. Coal, wood, metals, fertilizers, and construction materials account for most of the domestic tonnage hauled.

Table 43\*\* shows the increase in rail freight traffic since the war.

The turnaround time for freight cars has been steadily reduced since the war to alleviate the car shortage. To accomplish this, it has been necessary to cut the loading time to 2 hours for most factories and to 4 hours in the case of mines. Furthermore, loading and unloading is carried on 7 days a week, 24 hours a day. During the first half of 1950 a reduction of 1.5 percent in turnaround time reportedly permitted the loading of an additional 9,000 cars a month. 504/ This emphasis on reducing turnaround time has put a strain on existing rolling stock, which is already over-age and in bad repair. It has also resulted in erratic loading, requiring the use of expensive overtime unloading crews and having cars returned empty.

Passenger traffic on the East German railroads amounted to 732 million passengers carried in 1947 compared with 750 million in 1936. This prewar figure was exceeded in 1948, when 916 million passengers were carried. In 1949 this figure dropped to 880 million, but the 1950 plan called for an increase to 940

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\* Table 42 follows on p. 161.

\*\* Table 43 follows on p. 162.

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Table 42

Major Railroad Repair Shops in East Germany 502/

<u>Locations of Repair Shops for Locomotives</u>	<u>Directorate</u>	<u>Personnel Strength</u>
Halle	Halle	2,190
Meiningen	Erfurt	2,653
Schlauroth	Dresden	429
Stendal	Magdeburg	2,650
<u>Locations of Repair Shops for Rolling Stock</u>		
Berlin/Warschauer	Berlin	1,415
Brandenburg/West	Berlin	1,999
Delitzsch	Halle	1,409
Dessau	Halle	1,109
Dresden	Dresden	2,018
Eberswalde	Greifswald	1,400
Gotha	Erfurt	1,822
Grunewald	Berlin	558
Halberstadt	Magdeburg	1,073
Jena	Erfurt	3,073
Magdeburg	Magdeburg	2,070
Malchin	Schwerin	264
Potsdam	Berlin	777
Berlin/Schoeneweide	Berlin	1,843
<u>Locations of Repair Shops for both Locomotives and Rolling Stock</u>		
Blankenburg	Magdeburg	613
Chemnitz	Dresden	3,955
Cottbus	Cottbus	1,712
Leipzig	Halle	3,430
Berlin/Tempelhof	Berlin	1,331
Wittenberge	Schwerin	1,427
Zwickau	Dresden	3,945

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Table 43

Railroad Freight Traffic in East Germany  
1946-53 and 1955 Plan 503/

Year	Freight Carried		Average Daily Car Loadings (Units)	Average Turn- around Time (Days)
	(Million Ton-Kilometers)	(Million Metric Tons)		
1946	8,100	54	10,500	6.0
1947	9,100	73	11,370	5.0
1948	10,750	88	13,908	4.5
1949	13,800	100	15,660	4.2
1950	16,500	111 <u>a/</u>	20,390	3.86
1951	18,600	119	23,716	3.75 <u>a/</u>
1952	20,000 <u>a/</u>	131	26,374	3.50 <u>a/</u>
1953	22,600 <u>a/</u>	144 <u>a/</u>	28,500 <u>a/</u>	3.25 <u>a/</u>
1955 (Plan)	25,200	195	31,000	3.0

a. Estimated.

million.\* More recent figures for passenger traffic are not available; likewise, traffic in passenger-kilometers is not available except for 1950, when it amounted to 17.9 billion passenger-kilometers. 505/

b. Repair Shop Production.

The repair shops have failed in recent years to meet their production quotas for both locomotives and freight cars, and the incomplete information available on locomotive repairs particularly suggests that there has been an unsatisfactory maintenance program. Table 44\*\* gives the available data on repairs of locomotives and freight cars.

\* All of these figures include traffic on the Berlin S-Bahn (Elevated), which serves the Eastern and Western Sectors of Berlin. In 1936, the S-Bahn accounted for 60 percent of the total passengers carried in what is now East Germany.

\*\* Table 44 follows on p. 163.

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Table 44

Locomotive and Freight Car Repairs in East Germany  
1950-53 506/

	Number of Locomotives or Cars			
	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
Locomotives				
Planned Repairs	5,890	N.A.	3,746	3,898
Actual Repairs	N.A.	N.A.	3,364 <u>a/</u>	3,391 <u>b/</u>
Freight Cars				
Planned Repairs	77,800	86,140	96,275	N.A.
Actual Repairs	59,089	84,650	94,000 <u>c/</u>	N.A.

a. Estimate based on data for first 3 quarters. 507/

b. Estimate based on reported 85-percent plan fulfillment for first 5 months. 508/

c. Estimate based on 1951 repair of cars and the 1952 ratio of planned to actual locomotive repairs.

Failure to meet planned quotas for repairs is explained mainly by the shortage of materials and spare parts such as boiler tubes, steel sheets and plates, and wheels. This shortage is being relieved somewhat, however, by an increase in the manufacture of spare parts.

Repair shops in 1952 turned out an estimated 94,000 freight cars, as compared with 84,650 units in 1951 -- an increase of about 11 percent. This level of work doubtless was achieved only because the USSR had returned to the Reichsbahn 20,000 war-booty cars in immediate need of repair. In any event, the increase in production reflects a system of repair shops that must be in basically sound condition.

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S-E-C-R-E-Tc. Coal Consumption.

After 1945 there was a large-scale shift from bituminous coal to brown coal briquettes for locomotive fuel and a much smaller change from bituminous coal to pulverized brown coal. These measures were taken because bituminous coal production in East Germany and imports of bituminous coal from Czechoslovakia and Poland did not meet the area's requirements. As far as can be determined, raw brown coal is not used for locomotive fuel on a large scale. Consumption of such coal ranged from 6,826 tons in May to 7,902 tons in September of 1952. Monthly consumption during the first half of 1953 did not exceed 3,726 tons. 509/ The total tonnage of brown coal is probably used by switching locomotives or in other short-haul operations.

The exact amount of coal consumed annually by East German railroads is not known, but a reasonably reliable estimate for 1953 may be made. 510/ The average use of coal by the railroads is believed to approximate 23,000 tons daily, or about 8,395,000 tons annually. This represents total consumption by line and switching locomotives and repair shops. Approximately the same quantity is obtained by multiplying the planned locomotive performance of 117,730,000 kilometers in 1953 by the estimated average consumption of 62 tons of briquettes per thousand kilometers and adding 500,000 tons for switching engines and 610,000 tons for repair shops. The planned amount of coal consumption in 1953 was, however, somewhat higher than this estimate, totalling 9,250,000 tons.

The latest available information concerning the operating stocks of coal in the hands of the East German railroads is presented in Table 45.\* Assuming consumption of about 23,000 tons daily, operating stocks in August 1953 were adequate for less than 8 days of operations. In the early postwar years, reserves averaged from 18 to 20 days' requirements.

5. Transportation Requirements.

Only approximate over-all estimates as to the relationship between the performance of the railroads and the requirements of the economy can be made. Continuous complaints about poor

\* Table 45 follows on p. 165.

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Table 45

Operating Stocks of Railroads in East Germany  
August 1953 511/

<u>Type of Coal</u>	<u>Tons</u>	
	<u>10 August 1953</u>	<u>28 August 1953</u>
Raw Brown Coal	22,503	22,065
Hard Coal	75,176	84,399
Brown Coal Briquettes	85,351	65,607
Total	<u>183,030</u>	<u>172,071</u>

deliveries and delays in reparations shipments tend to overemphasize the deficiencies of the railroads. According to estimates by the German Economic Institute, 512/ the railroads in 1947 carried 50 percent of the prewar traffic volume with only 35 percent of the prewar car park. The ratios were 70 and 50 percent, respectively, in 1949, and approximately 100 and 55 percent in 1952. This indicates a considerable improvement in the utilization of the railroad facilities. It also should be noted that the estimated 120-percent increase in freight ton-kilometers from 1947 to 1952 nearly equals the area's growth in industrial production and far exceeds the 65- or 75-percent increase in gross national product.

The Five Year Plan requires the addition of 40,000 freight cars to the 1950 inventory. 513/ Even if this plan is fulfilled, there will be fewer freight cars in 1955 than before the war. In addition, the Plan calls for 200 more locomotives in 1955 than in 1950, which will result in a ratio of 159 cars per locomotive compared with the prewar ratio of 55 freight cars for each locomotive. One thousand passenger cars and 750 kilometers of track (a very small proportion of war-damaged or dismantled trackage) are also to be built during the 5-year period.

In view of the chronic steel shortage and the steel delivery records for the first half of the Five Year Plan, it is unlikely that the estimated quantity of 427,000 tons of steel required by this program will be available. The Plan allocates only 1,505,000

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tons of steel to the entire transportation industry. This program for rail transportation would therefore require approximately 28 percent of the industry's planned use of steel, and this does not make any allowance for the building of locomotives and rolling stock for reparations or export.

6. Probable Developments.

An expansion of railroad performance of 53 percent in ton-kilometers of freight and 52 percent in average daily car loadings is planned under the Five Year Plan. This expansion will have to be achieved largely by greater utilization of available equipment, mostly through a continued decrease in turn-around time. Since the present methods of squeezing the last bit of service from the available equipment already approach the limit beyond which the efficiency and safety of operations decline, it is probable that railroad performance will fail to meet the increased requirements fully. This, however, does not necessarily mean a breakdown of the railroad transportation system. Through improvisation and stringent priorities, the most important tasks can be accomplished.

Ton-kilometers of freight carried on East German railroads are now twice as great as in 1948. This increase in traffic has been accomplished with only a slightly increased locomotive and rolling stock park because Reichsbahn operations have been stepped up by every means almost to the maximum. Turnaround time of rolling stock has been reduced from about 4.5 days in 1948 to about 3.25 days, permitting carloadings to average more than 28,000 cars daily. This high level of traffic will have to be maintained to support the intensified activity in every other major branch of the economy. Any reduction in railroad capabilities would be reflected almost immediately in a reduction in production. Despite recurring reports of deterioration of equipment and facilities, it is unlikely that the railroads will be exploited beyond the danger point or even be permitted to fall into a serious state of disrepair.

In regard to the "new course" in East Germany, there is some evidence that railroad traffic has been shifted somewhat from industrial or military items in favor of transportation of consumer goods. For example, there was a pronounced increase in transport of food and other consumer goods during July, August, and September 1953. This increase was above that normally expected at that time of the year. Grain imports from the USSR

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to East Germany averaged about 3,500 carloads (approximately 50,000 tons) per month from October 1952 until about 1 July 1953. 514/ In July these imports jumped to 6,095 carloads (about 87,000 tons).

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B. Inland Water Transport.\*

1. General Description of Waterways.

The waterways of East Germany consist chiefly of the Elbe River and its tributary, the Saale, the Oder River, and the connecting waterways of the Berlin system. The Oder forms a substantial part of the eastern boundary of the country. All trans-German waterways from the Rhine to Berlin accommodate 1,000-ton barges, but eastward from Berlin small lock dimensions preclude access to the Oder and Polish waterways by such vessels. 517/ The capacities of the waterways of East Germany therefore increase from east to west. The Oder, while historically important to Germany, actually contributes little to its present water transport capabilities, and the capacity of the present network is thus largely concentrated in the Elbe and the Berlin System.

Waterways in East Germany sustained considerable damage during World War II. Reconstruction was not undertaken on a fairly large scale until 1946. By the end of that year, according to official statistics, 90.4 percent of the principal waterways were again navigable. The task proceeded slowly as the result of lack of trained personnel, but by 1949 East Germany's waterways were almost fully navigable. 518/

\* Sea transport is not considered here since it is of little consequence in the economy of East Germany. The ocean-going merchant fleet has only one vessel of over 1,000 GRT.

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Table 46 lists the principal arteries of the East German waterway network and indicates their relative prewar importance in terms of the volume of traffic carried in 1937. With the exception of a decline in Elbe traffic, the current relative importance of the various routes is estimated to be comparable to the prewar positions.

Table 46

Principal Navigable Waterways and Volume of Traffic  
in East Germany  
1937

Waterway	Length in East Germany (Miles)	Traffic (Million Metric Tons)
Elbe River	293.7 <u>a/</u>	15.6 <u>b/</u>
Berlin System		
Oder-Spree Waterway	82.3 <u>b/</u>	11.8 <u>b/</u>
Hohenzollern Canal	57.4 <u>b/</u>	6.0 <u>b/</u>
Elbe-Spandau Waterway	77.5 <u>b/</u>	4.7 <u>b/</u>
Lower Havel	105.7 <u>a/</u>	2.5 <u>b/</u>
Teltow Canal	23.5 <u>a/</u>	2.4 <u>b/</u>
Potsdamer Havel	18.6 <u>b/</u>	2.1 <u>b/</u>
Paretz-Niederneuendorf Canal <u>c/</u>	21.0 <u>d/</u>	
Oder River	100.0 <u>b/</u>	8.0 <u>b/ e/</u>
Saale River	108.5 <u>a/</u>	0.7 <u>f/</u>

a. 519/.b. 520/.

c. Recently constructed and not yet in normal operation.

d. 521/.

e. Pertains to entire length of the Oder River before parts of the river came under Polish administration.

f. 522/.S-E-C-R-E-T

S-E-C-R-E-T2. Description of Individual Waterways.a. Elbe River.

The Elbe River, normally exceeded only by the Rhine in size and importance to Germany, rises in Czechoslovakia and flows in a northwesterly direction through East and West Germany to the North Sea. Its connection with the Mittelland Canal affords access to the Rhine system to the west, while the Elbe-Spandau waterway to the east provides a direct water artery to Berlin. Although the Elbe used to be a strategically significant link between Berlin and the North Sea port of Hamburg, the postwar division of Germany has greatly reduced its importance. This is indicated by the decline of inland waterway traffic through Hamburg from 9.2 million tons in 1937 to 2.4 million tons in 1949. 523/

Continuously navigable from Kolin, Czechoslovakia, which is 592 miles from the sea, the Elbe is usually plied by barges of 650 to 700 tons. These barges travel as far as the Czechoslovak border most of the time. Barges of 1,000-ton capacity can travel downstream from Magdeburg except at low water, and 1,200-ton vessels can use the river during the flood season. The most serious natural interference with navigation is seasonal low water, especially above Magdeburg. Although ice occurs during about 1 month each year, traffic ceases for only 1 to 6 days on the various sections of the river. 524/

The principal Elbe port is Hamburg, a great inland waterway terminal as well as a major seaport. The inland port of Magdeburg is relatively small, but its strategic location at the junction of the Elbe and the Mittelland Canal -- the key link in the inland water route across Germany -- gives it considerable importance. Its significance has declined greatly, however, as a result of the drastic reduction in East-West trade. 525/

b. Berlin System.

The extensive system of waterways in the Berlin area facilitates access to industrial Berlin from either the Elbe or the Oder and links the city with the mining regions of Upper Silesia and the Baltic port of Stettin. This system includes the Oder-Spree Waterway, the Hohenzollern Canal, the Elbe-Spandau Waterway, the Lower Havel, the Teltow Canal, the Potsdamer Havel, and the Paretz-Niederneuendorf Canal.

S-E-C-R-E-T(1) Oder-Spree Waterway.

The Oder-Spree Canal, the most important of the Berlin waterways, extends from Spandau through Berlin to the Oder River at Fuerstenburg and forms the last link in the network of waterways running from the Rhine to the Oder. Its significance derives mainly from the fact that it provides access to the coal mines of Upper Silesia via a shorter route than the parallel Hohenzollern Canal. 526/

Proceeding eastward from Spandau, vessels of 1,000-ton capacity can normally navigate to Osthaven in Berlin, a distance of 13 miles. Farther eastward, smaller locks limit passage to barges with capacities not exceeding 650 tons. The Oder-Spree seldom freezes in the Berlin area, but east of Berlin it is closed by ice for an average of 28 days a year. 527/

Berlin is by far the largest port served by this waterway and the rest of the system in the area. Its diverse and very extensive facilities make Berlin the major inland port of East Germany. Fuerstenburg and Fuerstenwalde are the only other Oder-Spree ports of any significance. 528/

(2) Hohenzollern Canal.

The Hohenzollern Canal directly links Berlin with the lower Oder River and, by way of the Hohenstaaten-Friedricksthaler Waterway and the West Oder, to the Baltic port of Stettin. (The latter route provides a means of avoiding the shallower depths encountered in the main channel of the Oder.) In part, the Hohenzollern Canal parallels the older and shallower Finow Canal, which permits navigation of vessels of only 250-ton capacity. Finow is much less used for cargo transport than the Hohenzollern Canal, which can accommodate 650- to 750-ton barges. 529/

Transport on the canal depends on the Niederfinow shiplift to overcome the difference in elevation between the canal and the Oder River. The only alternative method of descent is by way of 4 step locks, requiring 2 hours, whereas the shiplift requires only 20 minutes. Its closing for any cause would reduce traffic accordingly. 530/ The Hohenzollern Canal is closed by freezing for an average of 42 days a year. Main terminal facilities are located at Berlin. 531/

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S-E-C-R-E-T(3) Elbe-Spandau Waterway.

The Elbe-Spandau Waterway, capable of accommodating 1,000-ton vessels, directly connects the Elbe with the Berlin area. It also provides a significant link in the chain of waterways extending from the Rhine to the Oder via the great east-west artery, the Mittelland Canal, and its connecting waterways. The waterway's value as a means of access to West Germany is greatly dependent on the Rothensee shiplift near Magdeburg for ascent to the Mittelland Canal. Closure of this strategic shiplift would result in the diversion of through traffic between East and West Germany, entailing additional travel time.

At present, however, West Germany is more dependent than East Germany on the shiplift, for it greatly facilitates movement of supplies to the Western Sectors of Berlin. Soviet authorities have twice in the recent past closed the shiplift, resulting in a minimum of inconvenience to East Germany's economy but causing a substantial reduction in West German traffic to West Berlin. 532/

Port activity on the Elbe-Spandau Waterway is confined chiefly to Genthin and Brandenburg, both possessing only limited facilities for handling cargo. 533/

(4) Lower Havel.

The Lower Havel, a canalized section of the Havel River, connects with the Elbe and provides a short cut for vessels proceeding up the Elbe toward Berlin. Light-loaded vessels of 1,000-ton capacity can navigate its entire length. As in the case of the Elbe-Spandau Waterway, navigation on the Lower Havel is interrupted by ice approximately 28 days annually. 534/

Havelberg, the northern terminus of the Lower Havel, is the only port of any consequence on the waterway, and its accommodations are meager. 535/

(5) Teltow Canal.

The Teltow Canal lies partly in East Germany and the Soviet sector of Berlin but mostly in the American sector of Berlin. It connects the Potsdamer Havel near Potsdam with the

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Spree River southeast of Berlin, thus affording 1,000-ton vessels an important Berlin by-pass and one of the shortest routes for traffic between the Elbe and the Oder. The canal was of considerable importance prior to World War II, but the division of Berlin has somewhat decreased its value to East Germany. Ice prevents navigation on the canal for an average period of 21 days annually. Some years, however, are entirely ice free. 536/

The Teltow Canal provides various small landings for barges along its banks. These are its only port facilities. 537/

(6) Potsdamer Havel.

The Potsdamer Havel, another canalized section of the Havel, provides another means of reaching Berlin from the east end of the Elbe-Spandau Waterway, which it virtually parallels. More important, however, it provides a southern connection between the Elbe-Spandau Waterway and the Teltow Canal, which skirts Berlin. Vessels of 1,000-ton capacity are reportedly using the Potsdamer Havel, although its craft capacity is stated at between 600 and 1,000 tons. 538/

Ice prevents navigation on about 28 days per year, but during some winters the waterway is completely ice free. Port activity on the Potsdamer Havel is confined almost entirely to Potsdam, which offers limited cargo-handling facilities. 539/

(7) Paretz-Niederneuendorf Canal.

East German traffic through Berlin long has been inconvenienced by the necessity of passing through the British sector, where, in reprisal for Soviet interference with Allied traffic, East German barges have been delayed for lengthy documentation and cargo checking. 540/ To avoid dependence on West Berlin facilities, East Germany has constructed the Paretz-Niederneuendorf Canal, which extends from the Elbe-Spandau Waterway at Paretz to the Havel north of Berlin. 541/

The canal was designed to handle 750-ton barges at first and was to be enlarged later to accommodate vessels of 1,000-ton capacity. 542/ Unforeseen engineering difficulties

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compelled various structural modifications during the construction period, however, reducing the canal's planned capacity considerably. On the basis of current intelligence, it is estimated that a 500-ton barge is the largest vessel the canal can accommodate. (This estimate is in substantial accord with a statement in the East German press in March 1953 indicating that the canal would not be navigable for 750-ton barges until the last pumping station was constructed. Work on the station was then in progress and reportedly nearing completion. 543/.) Two-way traffic is possible only if each vessel is under 500 tons; otherwise, one of the vessels must use small waiting inlets provided at regular intervals. 544/

c. Oder River.

The Oder originates in the mountains of Czechoslovakia and flows for 560 miles (450 of which are navigable) into the Baltic Sea at Stettin. Although the Oder is less suited for navigation than the other great rivers of Germany, its usefulness has been considerably enhanced by extensive canalization of its upper reaches and navigational improvements in the lower sections.

It was one of prewar Germany's most important inland waterways, for it connects the Baltic port of Stettin with the industrial area of Silesia and provides a short cut from Berlin to the Baltic via the Hohenzollern Canal. Since World War II, however, only some 100 miles of the river lie in or border upon East Germany; the remainder, including the river mouth and the port of Stettin, is under Polish administration. 545/ Consequently, the Oder has become of greater value to Poland than to East Germany. Navigation is limited mainly to Polish and Czechoslovak shipping and to Soviet-owned vessels expropriated from their former German owners in 1946. 546/

The Oder is navigable during most of the year for vessels of 750-ton capacity, but during low-water periods in summer, barges are compelled to travel only partially loaded. The chief East German port is Frankfurt/Oder, but its value is curtailed by limited cargo-handling facilities. 547/

d. Saale River.

The Saale, a principal tributary of the Elbe, originates in the Bavarian mountains and flows northward into the

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Elbe near Dessau. With its two tributaries, the Elster-Saale Canal to Leipzig and the Unstrut River, the Saale is sometimes referred to as the South Mittelland Canal. 548/

Halle is at present the outstanding port on the Saale, but when current development of the Elster-Saale Canal is completed, Leipzig will assume considerable importance. Available information indicates that the project is in the last stage. Port facilities are being greatly expanded to handle 1.5 million tons of cargo annually. 549/

### 3. Inland Waterway Fleet.

The inland waterway fleet of East Germany sustained considerable damage and deterioration during World War II, and as yet has not been restored to prewar capacity. Including barges but excluding passenger vessels, the total carrying capacity of the fleet operating in what is now East Germany was reduced from 1,116,800 tons in 1938 to 578,109 tons at the end of 1946. 550/ As a result of determined salvage operations, however, carrying capacity was increased to 750,610 tons by the end of December 1950, a gain of almost 30 percent. (See Table 47.)\* At that time there were 2,735 towed and self-propelled vessels in the East German fleet, excluding 388 passenger vessels. There were also 677 craft in the service or technical fleet 551/ (not included in Table 47). The improvement in the East German inland fleet since 1950 is shown in Table 48.\*\*

It is apparent that the rapid progress in rehabilitating East Germany's waterway fleet after the war has not been maintained since 1950. By February 1953, the carrying capacity of self-propelled cargo vessels and towed barges had increased to 887,182 tons, representing a gain of slightly more than 18 percent over the end of 1950 but still some 21 percent below 1938. At the same time the number of cargo-carrying units, both towed and self-propelled, increased to 2,490 for a gain of approximately 8 percent over 1950.

The current Five Year Plan notes that "because of the high average age and the partly unsatisfactory condition of the inland fleet, approximately 17.7 percent of the total tonnage will

\* Table 47 follows on p. 175.

\*\* Table 48 follows on p. 176.



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Table 47

Inland Waterway Fleet in East Germany  
December 1950 552/

Type of Vessel	Registered			Operational								
	Number	Horsepower	Tons	Total			In Operation			Not in Operating Condition		
	Number	Horsepower	Tons	Number	Horsepower	Tons	Number	Horsepower	Tons	Number	Horsepower	Tons
Steam Tugs	317	49,210		281	44,162		245	34,148		36	5,938	
Motor Tugs	124	8,380		88	5,745		N.A.	N.A.		36	2,635	
Self-Propelled Cargo Vessels	292	20,517	46,715	268	17,477	38,899	212	33,492	N.A.	24	3,040	7,816
Passenger Steamers	98	12,461		81	10,290		N.A.	N.A.		17	2,171	
Passenger Motor Ships	290	14,023		212	11,212		36	4,324		78	2,811	
Total Self-Propelled Ships	<u>1,121</u>	<u>104,591</u>	<u>46,715</u>	<u>930</u>	<u>88,896</u>	<u>38,899</u>	<u>N.A.</u>	<u>N.A.</u>	<u>N.A.</u>	<u>191</u>	<u>15,695</u>	<u>7,816</u>
Towed Barges	2,002		703,895	1,669		509,868	1,421		500,798	333		194,027 <sup>a/</sup>
Total Vessels	<u>3,123</u>		<u>750,610</u>	<u>2,599</u>		<u>548,767</u>	<u>N.A.</u>		<u>N.A.</u>	<u>524</u>		<u>201,843</u>

a. A balancing figure.   113,027 tons of towed barges as being unserviceable, leaving the discrepancy in the data unexplained.

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Table 48

Inland Waterway Fleet in East Germany  
December 1950 and February 1953 553/

Type of Vessel	Number of Vessels		Capacity	
	December 1950	February 1953	December 1950	February 1953
Tugs	441	468	51,590 Horsepower	72,379 Horsepower
Towed Barges	2,992	2,209	703,895 Tons	844,122 Tons
Self-Propelled Cargo Vessels	292	281	46,715 Tons	43,060 Tons

have to be deducted for wrecking." 554/ A large part of the inland fleet is laid up for repairs at one time or another. (As of December 1950, 17 percent apparently were laid up, though some estimates range up to 30 percent.) The time required for repairs is long because many necessary repair parts go to the USSR, where a large number of former German tugs are in service. 555/

4. Inland Water Transport Operations.a. Planned and Actual Traffic.

There has been a general upward trend in both planned and actual traffic on East German inland waterways. Traffic tonnage steadily increased from 3.7 million tons in 1946 to 11.7 million in 1950, but declined to 9.6 million in 1951. (See Table 49.)\* In each year except 1951, when only 88 percent of the plan was met, planned tonnage has been overfulfilled, the percentages varying from 102.3 to 110.3 percent. The increase from 631.8 million ton-kilometers in 1947 to 1,066 million ton-kilometers in 1948 is notable, but 1951 performance totaled only 1,325.3 million ton-kilometers, an increase of 24 percent above 1948.

\* Table 49 follows on p. 177.

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Table 49

Planned and Actual Traffic on Inland Waterways  
in East Germany  
1946-51 556/

Year	Million Tons		Actual as Percent of Plan	Million Ton-Kilometers		Actual as Percent of Plan
	Plan	Actual		Plan	Actual	
1946	3.5	3.7	105.7	N.A.	N.A.	N.A.
1947	5.2	5.4	104.0	822.7	631.8	76.8
1948	7.7	8.5	110.3	1,037.3	1,066.0	102.8
1949	9.3	9.9	106.5	1,186.3	1,132.5	95.5
1950	11.5	11.7	101.7	1,390.7	1,235.9	88.9
1951	10.9	9.6	88.0	1,665.0	1,325.3	79.6

No considerable change in the commodity composition of inland waterway traffic occurred during the period 1946-50. The three leading commodity groups were, in order of tonnage, (1) building material, rock, bricks, and gravel, (2) coal, and (3) building lumber, timber, and boards. Traffic volume during the period 1946-50 is broken down according to commodity groups in Table 50.\*

Despite the attainment of over-all goals, there have been numerous shortfalls in the fulfillment of plans for transport of specific commodities. Actual tons and ton-kilometers of traffic, by commodity groups, and percentages of planned traffic attained in 1950 are presented below in Table 51.\*\* In terms of ton-kilometers, the rank of major commodity groups differs from that based upon tonnage, reflecting variations in average length of haul. Coal is the leading item with 376.1 million ton-kilometers (TKM), followed by building materials (283.5 million TKM), grain and flour (186.0 million TKM), and wood (72.6 million TKM).

\* Table 50 follows on p. 178.

\*\* Table 51 follows on p. 179.

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Table 50

Traffic on Inland Waterways in East Germany by Commodity Group  
1946-50 557/

	Metric Tons				
	1946 a/	1947	1948	1949 a/	1950
Coal	982,088	1,346,198	2,192,131	2,244,043	2,202,455
Liquid Fuels	3,230	8,231	10,190	34,674	24,592
Salt	15,481	188,293	171,148	121,079	90,504
Fertilizers	7,871	63,414	252,219	242,987	56,402
Grain and Flour	347,202	422,350	566,483	641,477	870,267
Potatoes and Agriculture Produce	55,282	90,081	83,364	90,970	104,712
Sugar Beets	166,395	170,070	374,147 b/	227,417	480,570 b/
Building Materials, Rock, Bricks, Gravel	658,628	1,182,391	1,794,125	2,843,299	4,016,464
Building Lumber, Timber, Boards	98,483	470,081	1,115,692	1,205,352	1,447,718
Scrap Metal		53,625	105,718		
Foodstuffs	85,895	96,800	52,591	26,456	198,353
Goods (Not Identified)	963,565	1,333,566	1,790,222	2,047,676	2,273,701
<b>Total</b>	<b>3,384,120</b>	<b>5,425,100</b>	<b>8,508,030</b>	<b>9,725,430</b>	<b>11,765,738</b>

a. Totals for 1946 and 1949 vary somewhat from data in Table 49

b. Including sugar.

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Table 51

Traffic on Inland Waterways in East Germany by Commodity Group  
1950 558/

<u>Commodity</u>	<u>Actual Tonnage</u>	<u>Percent of Plan</u>	<u>Actual Ton-Kilometers</u>	<u>Percent of Plan</u>
Coal	2,202,455	87.5	376,076,381	90.5
Liquid Fuels	24,592	109.2	2,938,899	35.9
Salt	90,504	40.7	29,823,589	40.8
Grain, Flour	870,267	107.0	186,043,494	93.2
Other Foodstuffs	198,353	198.4	10,656,571	77.8
Sugar	155,497	88.8	32,183,020	106.7
Sugar Beets	325,073	92.1	16,510,105	118.8
Potatoes, Vegetables	104,712	74.1	22,909,690	102.5
Building Materials	4,016,464	114.8	283,534,421	94.9
Wood	1,447,718	128.7	72,555,015	156.1
Potash, Fertilizer	56,402	28.5	17,255,236	27.9
Other Goods	2,273,701	97.3	185,369,922	89.6
Total	<u>11,765,738</u>	<u>102.3</u>	<u>1,235,856,343</u>	<u>88.9</u>

b. Maintenance of Facilities.

The inland waterways of East Germany suffered great damage and deterioration during World War II, but they have been largely restored. 559/ By the end of 1947, 91.8 percent of mileage on main routes and 59 percent of mileage on secondary routes was reported to be navigable. 560/ Although most war damage has been repaired, remaining hindrances to navigation pose difficult problems because of lack of funds and inadequate equipment and building materials. 561/ It has been reported, for example, that locks are in constant need of repair because shortages of materials prevent general overhauling. 562/

In addition to restoration of waterways, a major postwar problem has been reconditioning of the fleet, which experienced considerable damage, obsolescence, and undermaintenance. It appears that much was accomplished in this direction during the

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period 1946 to 1951, under difficult conditions and at great cost. 563/ Planned and achieved ship repair work for the years 1949-51 follows in Table 52.\*

The decline from 1949 to 1950 in the tonnage of vessels repaired is consistent with the increase in traffic during the period, and the increased repairs in 1951 are in harmony with the decrease in traffic that year. An official of the East German Traffic Ministry stated on 28 April 1952 that ship repair quotas for 1952 had not been filled because of failure to order ships into yards for repairs. 565/ There are no indications, however, as to either the size of the quotas or the amount of repair work attained in 1952.

c. Coal Consumption.

Coal is the most important fuel of the inland fleet. In 1948 a total of 204,399 tons of bituminous coal and brown coal briquettes and 15,238 tons of diesel fuel and gasoline were consumed. The amount of fuel consumed in the two succeeding years was considerably less than that used in 1948. (See Table 53.\*\*) The validity of the data is somewhat doubtful in view of the fact that during this same period both the size of the operational fleet and the amount of traffic increased. It may be, however, that the number of craft actually in use in 1950 was lower than in 1948. Greater efficiency in utilization of fuel is another possible explanation.

Shortage of good-grade coal has been recognized by the East German government as a real handicap, 567/ and the necessity of using low-thermal-value brown coal briquettes or even crude brown coal is believed to have had a serious adverse effect on costs.

5. Inland Water Transport Requirements.

a. Plans.

East Germany carefully formulates its transportation plans in conformity with Soviet policy. Comparison of planned

\* Table 52 follows on p. 181.

\*\* Table 53 follows on p. 182.

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Table 52

Tonnages of Vessels Repaired in the Inland Waterway Fleet in East Germany  
1949-51 564

<u>Year</u>	<u>Barges and Utility Craft Not Self-Propelled</u>			<u>Self-Propelled Cargo Ships and Utility Craft</u>		
	<u>Plan (Tons)</u>	<u>Actual (Tons)</u>	<u>Actual as Percent of Plan</u>	<u>Plan (Tons)</u>	<u>Actual (Tons)</u>	<u>Percent of Plan</u>
1949	513,085	507,534	98.9	144,795	125,806	86.9
1950	419,365	318,727	76.0	105,732	80,549	76.2
1951	309,630	415,909	134.3	49,060	50,718	103.4

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Table 53

Consumption of Fuel by the Inland Waterway Fleet  
in East Germany  
1948-50 a/ 566/

Type of Fuel	Tons		
	1948	1949	1950
Bituminous Coal	55,083	60,166	59,391
Briquettes (Brown Coal)	149,316	117,050	100,851
<b>Total</b>	<b>204,399</b>	<b>177,216</b>	<b>160,242</b>
Diesel Fuel	12,056	14,537	12,758
Gasoline	3,182	3,100	3,073
<b>Total</b>	<b>15,238</b>	<b>17,637</b>	<b>15,831</b>

a. [redacted] consumption of bituminous coal and brown coal in 1948 was 176,600 tons.

50X1

programs and achievements, however, indicates that the goals are not always realistic. With regard to waterways, the main objective is creation of a route from the Elbe River via Berlin to Stettin which would be navigable for 1,000-ton vessels. 568/ The current Five Year Plan includes only one project for this expansion, namely, deepening of the lower Havel River in Brandenburg. The DME 30 million provided in the Five Year Plan for inland waterways will have to be increased by DME 14,450,000 in order to deepen the Elbe-Oder Canal system to accommodate 1,000-ton ships.

Other planned programs include deepening of the Saale to accommodate 600-ton vessels to Halle, construction of a canal from Rostock to Guestrow, and straightening the mouth of the Spree River. A project presently under way is the Paretz-Niederneuendorf, or Berlin By-Pass, Canal, which upon completion will permit 750-ton barges to move within East Germany without possible interference by the Western powers in Berlin.



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The capacity of the inland waterway fleet is to be substantially increased. The tug fleet is to be expanded from 51,590 horsepower in 1950 to 102,200 horsepower in 1955. This, however, is a considerably greater relative increase than the scheduled increase in carrying capacity which is from 775,000 tons\* in 1950 to 842,000 tons in 1955.

East Germany apparently recognizes that the fleet is outmoded and particularly short of self-propelled craft. 569/ The current Five Year Plan for expanding the fleet is intended to remedy these deficiencies, as indicated in Table 54.

Table 54

Planned Expansion of the Inland Waterway Fleet  
in East Germany  
1951-55 570/

<u>Year</u>	<u>Thousand Horsepower of Tugs</u>	<u>Thousand Tons of Barges and Cargo and Passenger Vessels</u>
1950 Actual	51.6	775
1951	55.5	800
1952	57.9	805
1953	60.7	819
1954	75.9	832
1955	102.2	842

Traffic under the current Five Year Plan is to be increased from 11,766,000 tons in 1950 to 14,500,000 tons in 1955, and ton-kilometers are to be raised from 1,236,000,000 to 2,323,000,000. (See Table 55\*\* below.) Much attention has also been directed to the desirability of diverting considerable amounts of rail traffic to the inland waterways for more effective use of the area's over-all transportation capacity. 571/

\* The cargo-carrying capacity of passenger ships is included in this estimate, unlike the figure in Table 47 (750,610 tons).

\*\* Table 55 follows on p. 184.

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Table 55

Planned Expansion of Inland Waterway Traffic  
in East Germany  
1951-55 572/

<u>Year</u>	<u>Thousand Tons</u>	<u>Million Ton-Kilometers</u>
1950 Actual	11,766	1,236
1951	10,900	1,665
1952	11,750	1,811
1953	12,850	2,003
1954	13,800	2,168
1955	14,500	2,323

b. Probable Trends.

Navigable waterways will probably be extended somewhat during the next few years. Some projects have been initiated to extend and improve waterways while others are merely in the planning stage. The chief limiting factor will be the amount of equipment and construction materials that can be committed for this purpose.

Considering the undermaintenance and obsolescence of the existing vessels, it seems probable that the total fleet tonnage will not appreciably increase. The percentage increase in tonnage for self-propelled vessels is likely to be substantially greater than that for non-self-propelled craft. This is indicated by the relatively greater need for the former as expressed in official statements and by the intentions of the government as reflected in the current Five Year Plan.

With regard to traffic trends, there will probably be an increase of about 1 million tons annually during the next few years. The current Five Year Plan contemplates annual increases of 0.8 to 1.1 million tons. Except for 1951, when there was a 2.1 million-ton decline in traffic from 1950, there have been steady increases in recent years. There will probably be increased efforts to divert more traffic from rail to water transport, and

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with existing controls over the entire transportation system considerable diversion may well be accomplished. Although probable trends of traffic in terms of ton-kilometers are more difficult to project than tonnage trends, annual increases of at least 90 to 100 million ton-kilometers during the next few years appear reasonable. Recent annual increases have approximated these values.

The effects on inland water transport of the "new course" economic policy which was enunciated on 9 June 1953 have not yet become apparent. Available information is insufficient to permit a comparison of East German inland water traffic before and after the disturbances of 17 June 1953.

On the other hand, reductions have occurred in plans for inland waterway improvement. At the end of June 1953 the Director of the State Secretariat of Shipping advised the Inland Waterway Section to suspend all engineering work on waterways of minor importance but to continue construction activities on the main routes linking the Elbe and the Oder rivers and to hasten the work on the locks in Hohensaaten and Brandenburg. Apparently one of the projects affected was the proposed installation of lights for night navigation on the Havel River.

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50X1

C. Communications.

1. Introduction.

Prior to World War II, Germany was one of the leading countries of the world in the field of telecommunications. Its modern telecommunication resources effectively served the needs of the economy. German productive capabilities, technological know-how, and trained manpower were sufficient not only to meet domestic needs but also to permit sizable exports of high-quality equipment.

The war caused considerable damage to Germany's telecommunications resources. After the war the USSR removed large segments of East Germany's telecommunications system as well as production facilities, and much of the area's postwar production in this field was taken as reparations. By about 1950 these

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actions had reduced East German resources for domestic use to an inordinately low level.

In 1950 or 1951, however, Soviet policy concerning East Germany's telecommunications industry seems to have changed. Soviet withdrawals from current East German production were curtailed and may have been almost discontinued. The new policy called for an accelerated build-up of East German telecommunications equipment production capacity. The new policy also called for an increase in the amount of production to be retained by East Germany to rebuild its telecommunications operating system. This apparent shift in policy may have been occasioned by Soviet recognition that the depleted telecommunications plant was impairing the effectiveness of the East German economy in its service to the USSR.

Soviet authorities also may have reasoned that the strategic value of East Germany would be enhanced by an enlargement of its telecommunications resources. The planned build-up of the radiobroadcasting system, one of the principal media for influencing the minds and behavior of the populace, shows recognition of the fact that the existing system was proving inadequate to the task of orienting East Germany away from the West and toward the East. Furthermore, the many West German and other non-Bloc radio programs directed toward East Germany undoubtedly pointed up the need for countermeasures. One of these was jamming, commenced in 1949 and continued ever since on an increasing scale.

## 2. Description of the Telecommunications System.

### a. Telecommunications Complex.

The telecommunications complex of East Germany is composed of the basic, functional, and radiobroadcast systems, which will be treated separately.

#### (1) Basic System and Its Activities.

A moderately well-developed, efficient wireline network makes up the basic, point-to-point telecommunications system. The use of radio for general public communication is not widespread. There are, however, microwave (decimeter) radio relay networks under development which undoubtedly will greatly enhance the capacity of the basic wireline system.

S-E-C-R-E-T(a) Telephone System.

The telephone system is more fully developed than the telegraph system. Long-distance and regional underground cables interconnect all important populated areas, and open wirelines extend the network to rural areas. Many telephone facilities were removed as reparations by the USSR following World War II. Some of the remaining damaged lines have been rehabilitated, and a few new lines have been built.

Slightly over one-half of the telephones are on an automatic dialing basis. All long-distance switching, however, is apparently on a manual basis. The equipment dates predominantly from before World War II but, being in good condition, continues to give satisfactory service. 574/

A relatively large part of the general-purpose telephone facilities is used by Soviet authorities and by the East German government, either as regular subscribers or through private leasing arrangements. Thus official use substantially reduces the facilities available to the public at large. A few agencies have their own wire networks, the most notable being the fully automatic telephone net of the railroad system. A portion of this net is available to the public. 575/

International radiotelephone facilities augment wire lines, the transmitting station being located at Berlin. There are also a few radiotelephone stations for domestic use. However, radio facilities are used mainly for special, or functional, systems 576/ and will be discussed below.

With respect to the basic system only, Table 56\* shows for selected years the estimated number of telephone subscribers together with the number of long-distance telephone conversations and their value.

(b) Telegraph System.

The telegraph system is composed largely of underground cables, with open-wire facilities extending the service to the less populated areas. Many of the telegraph circuits are

\* Table 56 follows on p. 188.

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Table 56

Estimated Number of Telephone Subscribers  
and Number and Value of Long-Distance Telephone Conversations  
Handled Over the Basic System  
in East Germany  
1938, 1948, 1950-52, and 1955 a/ 577/

<u>Year</u>	<u>Number of Telephone Subscribers (Thousand)</u>	<u>Number of Long-Distance Telephone Conversations (Thousand)</u>	<u>Value of Long-Distance Telephone Conversations b/ (Thousand 1952 DME)</u>
1938	N.A.	25,165 c/	N.A.
1948	180.9	14,500 d/	54,000
1950	205.0	16,400	61,500
1951	210.0	16,800 e/	63,000
1952	214.8	17,200	64,500
1955	285.9 f/	22,900 f/	85,900

a. Excludes East Berlin unless otherwise stated.

b. Based on an average of DME 3.75 for each conversation. This average was determined by using an assumed average time of 5 minutes per conversation and an assumed average distance of 140 km. This cost of such a call was determined by reference to the Dresden 1952 telephone directory, which carries a rate schedule for long-distance calls. The figures in this column have a wide margin of error and are, therefore, not reliable except as rough estimates.

c. Includes East Berlin.

d. East Berlin handled an estimated additional 1.4 million conversations.

e. East Berlin handled an estimated additional 3 million conversations.

f. Estimated. In view of the present Soviet over-all policy of permitting increases in consumer goods in Satellite countries and the planned build-up of telecommunications facilities in East Germany, it is considered that during the 1952-55 period there will probably be an average 10-percent increase in telephone subscribers each year.

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superimposed on the telephone lines. This system also suffered heavy loss at Soviet hands at the close of World War II and probably has not been built up to its previous strength. 578/ It is secondary to the telephone system in scope and importance. The telegraph system uses mostly teleprinter equipment, the limited supply of which hampers expansion. 579/

International telegraph service in East Germany utilizes a number of cables to western and eastern European countries. Most international telegraph circuits to the East use radio facilities. 580/ There is a large radio station at Koenigs-Wusterhausen for international service. 581/ It appears that relatively few radio facilities are used for domestic telegraph service because of the short distances involved and the existence of the wire-line system.

Table 57\* shows estimates of the combined domestic and international output of the telegraph system in number of telegrams and their value for selected years.

(2) Functional Systems and Their Activities.

Functional systems are separately organized and operated systems serving special economic, political, police, or other activities. Generally, they have connections with the basic system in some way. With the exception of the railway net and a few Soviet military open-wire routes, all underground cables and open wires are the property of the Ministry of Posts and Telecommunications. The functional nets rent or requisition many of these facilities from the Ministry. These nets employ cable, open wire, and radio facilities in various combinations and are fairly well developed and efficient.

The most important of the functional nets is the railway telephone and telegraph system. The USSR attaches such importance to this system that it has been restored practically to its prewar efficiency. As mentioned previously, there is limited use of it by the public.

Among the other important functional nets are those of the Volkspolizei (People's Police), Seepolizei (Sea Police),

\* Table 57 follows on p. 190.

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Table 57

Estimated Number and Value of Telegrams  
Handled Over the Basic System in East Germany  
1938, 1948, 1950-52, and 1955

<u>Year</u>	<u>Number of Telegrams (Thousand)</u>	<u>Value in 1952 DME a/ (Thousand)</u>
1938	1,660 b/	N.A.
1948	1,315 b/	6,300
1950	1,585 c/	7,600
1951	1,722 b/	8,300
1952	1,859 d/	8,925
1955	2,340 d/	11,232

a. Average value per telegram was determined from experience in the US, where average revenue per telegram is 1.3 times average revenue per long-distance telephone call. This ratio was applied to the estimated average value per long-distance telephone call of DME 3.75 (see note in Table 56), resulting in an average rounded value per telegram of DME 4.8. This was then applied directly to the estimated number of telegrams. The figures in this column have a wide margin of error and are, therefore, not reliable except as rough estimates.

b. Figures include East Berlin. 582/

c. Interpolated.

d. Estimated. During the period 1952-55, there will probably be increases in telegraphic traffic because of the current Soviet policy of allowing increases in consumer goods and services in Satellite countries and because of the general build-up in communications facilities in East Germany. An 8-percent increase per year during this period underlies the estimates.

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Soviet military, certain industries, and the Ministry of the Interior. There is a coastal radio net for communication with the fishing fleet and other ships at sea. There is also a limited network for the meteorological service, which is to be expanded. The extent of the net for the aeronautical services is not known. There are also the military and the naval nets, which rely largely on radio. 583/

It is not possible now to derive a meaningful measure of the extent of the activities of these functional systems. Tariffs are not generally used, and accountability for services performed is much less comprehensive than for the basic systems. Neither are the costs of these services known. The railway communications net is probably the best developed to meet its purpose. The others are presumed to be more or less adequate, though little information on the subject is available.

Table 58\* presents estimates of the number of radio stations in certain of the functional services.

(3) Radiobroadcasting System and Its Activities.

Before World War II, Germany had a modern radio-broadcasting system, but its efficiency was seriously reduced by war destruction and, more importantly, by Soviet dismantling of a large portion of its broadcast facilities and looting of radio receivers. It was not until about 1951 that the USSR began a major program to rebuild this service. In 1952, it was estimated that there were over 30 radiobroadcast transmitting stations in East Germany serving about 4 million radio receivers. Emphasis has been and continues to be on installation of very high-powered transmitters at key locations. 585/

East Germany operates three groups of transmitting stations, namely the "Deutschlandsender" group, originating programs intended for both East and West Germany; the Berlin I group; and the Berlin III group. The latter two groups originate in Berlin with the exception of some local and regional programming, and most transmission is in the medium-frequency band. Stations in each group are interconnected by cable for program transmission.

\* Table 58 follows on p. 192.

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Table 58

Estimated Number of Radio Stations in Selected Functional Services  
in East Germany  
1938, 1948, 1950-52, and 1955 a/ b/ 584/

<u>Year</u>	<u>Point-to-Point Stations</u>	<u>Coastal Stations</u>	<u>Aeronautical Stations</u>
1938	6	34	32
1948	8	N.A.	N.A.
1950	14	N.A.	N.A.
1951	17	15	N.A.
1952	11	12	N.A.
1955	15	14	N.A.

a. A radio station is a separate radio transmitter or radio receiver, or a combination of transmitters and receivers, along with the accessory equipment required for carrying on a definite radio communication service. A radio station may operate in one or more services. It may contain one or more transmitters or receivers to perform one or more radio services. The number of radio stations gives no clue as to the number of transmitters involved. There are numerous other radio services for which data are not at present available.

b. These data are considered to be inaccurate and incomplete. They do, however, show roughly the coverage for the services stated. In some cases it is not certain whether the data refer to the whole of Germany or to East Germany alone.

While most of the stations have been using comparatively low power, 4 high-powered transmitters have been installed since late 1952. Their locations and power outputs are as follows: Schwerin, 440 kw; Dresden, 300 kw; Magdeburg, 300 kw; and Berlin/Koepenick, 440 kw. The Berlin -- Koenigs-Wusterhausen transmitter is rated at 100 kw, which is scheduled to be increased shortly. All three networks have been strengthened considerably. Flexibility in meeting service area needs is provided by at least three mobile transmitters, which may also be used sometimes as jammers against "anti-state" foreign broadcasts. 586/

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Besides the facilities of East Germany, there are a few transmitters operated by the USSR, one for relaying German programs from Moscow and at least one for Soviet occupation forces in East Germany. 587/

East Germany does not engage in extensive foreign radiobroadcast activity except for programs directed mainly at West Germany. There are no indications that East Germany plans to expand its foreign radiobroadcasting service. The country is, however, greatly increasing its facilities to improve its domestic and West German coverage and to reduce or nullify West German coverage in East Germany.

Frequency modulation (FM) radiobroadcasting is now emerging in East Germany. Five transmitting stations carrying East German programs are located at Berlin, Inselsberg, Leipzig, Schwerin, and Brocken. 588/ Since the FM reception base is still narrow, these stations are probably operating only on an experimental basis.

Television programs are broadcast experimentally from Berlin to a limited number of viewers, 589/ and there may be other stations. There is now a reception base of perhaps 40,000 Leningrad-type television receivers. These were made by East Germany for the USSR but were "resold" to East Germany because they were unacceptable technically. 590/

The jamming effort of East Germany has been stepped up considerably since it started in 1949, especially since 1952. Jamming -- entailing investment in equipment, maintenance and operating personnel with technical training, and the operation of monitoring stations -- involves an economic expense from which a return is problematical. It justifies its cost only to the extent that the jammed programs otherwise might subvert the population and hamper the operation of the economy.

It is reported that all radiobroadcasting transmitters have been equipped with 2-kw "side" stations for jamming West German broadcasts. There is also at least one jammer of a mobile type. Several old transmitters, which have been replaced with higher powered units, are now used as jammers. Soviet officers are reported to be directing the jamming stations. 591/ Measuring the economic production of East German radiobroadcast transmission

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is not now feasible. The monetary cost incurred in the production of a program hour, the only unit now available, cannot be determined directly and varies too widely throughout the world to permit use of analogical techniques.

b. Organization and Control.

The Ministry of Posts and Telecommunications, which is under the influence if not the full control of the USSR, directs the telephone and telegraph systems. Active control is exercised by the Central Administration for Posts and Telecommunications. The country is divided into administrative districts with headquarters at Berlin, Potsdam, Schwerin, Halle, Erfurt, Leipzig, and Dresden. 592/ Berlin is highly developed administratively and is the site of many large and strategically important industries. It remains a communications focal point probably unparalleled in Europe. 593/

In September 1952, the East German Radio Committee, established by the East German Council of Ministers, was charged with central direction of all radiobroadcast operations, programming, and program production -- all centralized in Berlin. 594/ Apparently a major reorganization took place in the Ministry of Posts and Telecommunications in early 1953 when it reportedly was divided into three main administrations, namely, Telecommunications, Posts, and Radio. 595/ This probably represents an attempt to bring all radio communications under the direct control of a special main administration to conform to the Soviet pattern. However, it appears that radiobroadcasting is still under the direction of the Radio Committee.

3. Plans for Expansion to 1955.

a. 1953 Economic Plan for Telecommunications.

The Economic Plan for projects starting or continuing in 1953 embraces research, development, production, and installation programs for modernization and expansion of the entire telecommunications system. These programs include conversion to fully automatic telephone and telegraph (teletype) facilities for urban and long-distance service; multichannel carrier frequency systems for telephone and telegraph; microwave radio relay (decimeter) systems with up to 240 channels for transmission of television, radio, telephone, facsimile, and telegraph signals; production of cheap television

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receivers; and conservation measures, such as the development and use of aluminum cable to conserve copper and lead. The extent to which these plans are being carried out cannot be determined from available information. In line with the evident determination of the USSR to build up East Germany for its own ends, however, the plans are undoubtedly going forward. 596/ They appear to be feasible, though they are not stated in quantitative terms.

The economic implications of the Plan are manifold. Conservation of manpower is possible through increased use of automatic facilities and the new multichannel systems, though the complexity of the equipment requires scientists to conceive it and engineers and technicians to build it, operate it, and maintain it. Modern microwave radio systems and carrier systems also offer great economic benefits through reduced investment costs and reduced consumption of copper and aluminum, poles, cross-arms, and hardware for wire line maintenance.

b. Telephone Communications Budget for 1951-55.

The East German budget for expansion and modernization of the telephone system for the years 1951-55 totals some DME 10 million. The contemplated budget for telegraph services, it may be assumed, is substantially less than that for telephone services. The planned telephone expenditures are divided among the administrative areas as follows: Dresden, DME 3,094,000; Erfurt, DME 1,105,000; Halle, DME 1,273,000; Leipzig, DME 2,468,000; Potsdam, DME 884,000; and Schwerin, DME 1,025,000. 597/ Noticeably lacking are the contemplated expenditures for East Berlin, for which a sizable outlay is likely.

The largest amounts are to be expended for central office switchboards for both local and long-distance use. Other items include automatic dialing for long-distance toll service, cable replacements, pole line and aerial network expansions, building construction, and telephone station replacements for automatic dial operation. The largest single amount, DME 1 million, is earmarked for reconstruction and new construction for the Leipzig long-distance office.

In the light of the total amount and the types of work to be undertaken, the average planned expenditure of DME 2 million per year appears reasonable. Here again, the progress made to date is not known, hence it cannot be foretold whether the plans will be fully executed.

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S-E-C-R-E-Tc. Radio Communications Budget and Plans for 1951-55.(1) Expansion of Radio Transmission.

For the period 1951-55, the East German radio budget provides for the expenditure of DME 28 million, of which over 26 million is earmarked for increasing the power of existing transmitters and for construction of new high-power transmitters. Indications point to the use of these transmitters mainly in the broadcast services, with certain improvements intended for transmitters in the coastal and fishery services. The bulk of this expenditure was planned for jobs to be completed by 1953. 598/

There are many reports indicating plans for construction of new high-power transmitters in the near future. The high-frequency broadcast transmitter at Koenigs-Wusterhausen ("Deutschlandsender") is now reportedly being increased to 500 kw. A 500- to 1,000-kw transmitter is reported under construction for Berlin/Zehlendorf, probably for Berlin I or Berlin III programs. In addition, new high-power transmitters, to be in operation by May 1954, are scheduled for Erfurt and Leipzig. 599/ Presumably these will have a power of either 300 or 440 kw.

An increase in the power of the FM transmitter at Brocken from  $\frac{1}{4}$  kw to 10 kw is planned, and it is possible that other FM transmitters will be strengthened also. 600/ Extension of domestic television broadcasting is contemplated before 1955. Stations at Berlin, Brocken, Leipzig, and Dresden have been mentioned, and there may be others. 601/

Efforts to increase East German jamming capabilities are apparently being continued. Replaced transmitters are to be used in this service and portable low-power jammers have been ordered for local jamming. Production of a special type of jammer reportedly started in 1953. The areas of intended operation, however, are not known. Some 6,000 jammers, presumably of low power, have been reported on order. 602/

It has been evident, especially in the past year, that the USSR is strengthening East German radiobroadcast capabilities to a great extent. This is shown by the many new high-power transmitters planned, installed, and put into operation. This trend reflects political as well as economic considerations. The political

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competition for a unified Germany friendly to the East on the one hand or friendly to the West on the other has focused the attention of both sides on the importance of radiobroadcasting. Considering the planned expenditures for radio communications, the probable amounts already expended, the details of the plans, and the continued accent placed upon this type of mass communication, the achievement of the plans seems entirely feasible. In fact, present indications suggest a possible "stepping-up" of the program.

(2) Development of Microwave Radio Relay Systems.

The reported order for production in East Germany of 372 microwave (decimeter) radio relay sets early in 1953 for a so-called "Spinne" network is highly significant. This type of radio facility provides many communication channels between fixed points over which telephone, telegraph, teletype, facsimile, television, and radio signals may be transmitted simultaneously. The network is planned to interconnect all the principal cities of East Germany and is to consist of two parallel nets. Operations are to be primarily for telephone and telegraph service with one net reportedly intended for use by the Ministry of Post and Telecommunications and the other by the Volkspolizei or some other military unit. One link of the proposed network, between Berlin and Dresden, was reported in operation in late 1952. Additional construction work was reported started in the spring of 1953. 603/

The network would be of immense economic value, to say nothing of the political and military potentialities. In addition to their economy, such systems are relatively jam-proof, and they offer desirable communications security in that their signals are generally interceptable only at line-of-sight distances. Jam-proof facilities are very desirable in view of the intensive radio jamming operations undertaken by the USSR and the attendant dangers of self-jamming and retaliatory jamming measures. The plans therefore seem quite feasible and sensible.

4. Summary and Conclusions.

Statistical evidence does not show that East Germany has yet reached its prewar eminence in this field; nor does the evidence suggest that it will do so by 1955. Nevertheless, the basic point-to-point, general-purpose telephone and telegraph systems have been expanding in both capacity and coverage. Toward this end, ultramodern

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automatic and capacity-multiplying techniques are being applied. Some of these involve both wireline and radio media. Functional telecommunications systems serving various economic, political, and social activities have been expanded and improved. The radiobroadcasting system was earmarked at least a year ago for a formidable buildup. New high-powered stations are under construction and lower-powered transmitters in other stations are being replaced with much more powerful transmitters. Jamming efforts are continually being increased. Frequency modulation and television services are developing.

We find no evidence of any long-range change in plans in the field of telecommunications in consequence of the June 1953 riots. After these riots, certain telecommunications services with the West were temporarily rerouted or suspended. However, this was nothing new, being part of East Germany's over-all problem of communications security.

More and better telephone and telegraph services may become available to the East German public as a result of the general build-up of telecommunications facilities, but the evidence does not permit any apportionment of these services among the state, industry, and the public. A policy change favoring consumers may also be involved in the buildup in the radiobroadcasting services, including frequency modulation and television. Yet these services can be considered as propaganda tools of the state as well as recreational and cultural services benefiting the general public.

We conclude that East Germany easily has the capability of fulfilling its plans as we perceive them and thus of achieving the goals given in this report for 1955. Two major unknown facts could, however, easily change this estimate. One is the uncertain factor of Soviet will. The other is the state of mind of the East German worker, more particularly his propensity to work. This factor may be affected significantly by the propaganda showered on him by both the East and the West.

## VI. Foreign Economic Relations.

### A. Pattern of Trade.

East German foreign trade has shown constant and substantial gains since the reversal of the policy of dismantling German industry



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in mid-1948. Soviet plans for East Germany suggest that its role in the economy of the Soviet Bloc is to be similar to its former role in the European economy, the role of a modern manufacturing economy. If these plans materialize, a continuation of the upward trend of exports and imports may be expected, and trade with the Bloc as a percentage of the total trade of East Germany is likely to increase over the long run.

As shown in Table 59\* the world trade of East Germany increased severalfold over the period from 1948 to 1952. This increase was achieved despite the payment of a substantial portion of East German production to the USSR on reparations account, which account is excluded from the totals treated in this section.

For the period 1948-50, East German foreign trade statistics were originally calculated in dollars and then converted to marks at the official exchange rate (to August 1950, 1 RM/DME equals \$0.40 and after August 1950, 1 DME equals \$0.30). In recent years the same practice is reported to have been followed, except that the dollar figures are converted to rubles at the rate 1 ruble equals \$0.25. 609/ Therefore, these exchange rates are appropriate for converting the East German foreign trade figures as reported in marks or rubles to dollars, and the question of whether these rates adequately reflect the internal purchasing power of the mark or the ruble is beside the point in this connection.

1. East German Trade with the West.

East German trade with the West increased substantially during the period 1948-52. Western Europe accounted for the major portion of this East-West total. (See Table 60.\*\*\*) For the years 1948-49 and 1951-52, over 90 percent of East German exports to the West went to Western Europe, and over 98 percent of all imports from the West came from that area. 610/ Trade with North America came second, and the remainder of East German trade with the West was widely scattered. The largest part of this Western trade was with the nearby countries of northwestern Europe. West Germany, the Netherlands, Sweden, Norway, and Denmark accounted for about 86 percent of total exports to the West in 1951 and about 60 percent in 1952. As in the case of exports, neighboring countries of\*\*\*

\* Table 59 follows on p. 200.

\*\* Table 60 follows on p. 201.

\*\*\* Continued on p. 202.

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Table 59

Foreign Trade of East Germany  
1948-52

<u>Exports</u>	<u>Total Trade</u>	<u>East-West Trade</u>	<u>Percent of Total</u>
	(Thousand US \$)	(Thousand US \$)	
1948	133,870 <u>a/ b/</u>	48,419 <u>a/ b/</u>	36.2
1949	299,227 <u>a/ b/</u>	94,616 <u>a/ b/</u>	31.6
1950	460,000 <u>c/</u>	183,041 <u>d/</u>	39.8
1951	714,800 <u>c/</u>	112,964 <u>d/</u>	15.8
1952	724,344	123,731 <u>d/</u>	17.1
1952 <u>e/</u>	724,344 <u>f/</u>	174,567 <u>g/ h/</u>	24.1 <u>g/ h/</u>
<u>Imports</u>			
1948	170,946 <u>a/ b/</u>	63,358 <u>a/ b/</u>	37.1
1949	314,576 <u>a/ b/</u>	160,448 <u>a/ b/</u>	51.0
1950	511,000 <u>c/</u>	154,624 <u>d/</u>	30.3
1951	557,500 <u>c/</u>	101,011 <u>d/</u>	18.1
1952	971,943	110,603 <u>d/</u>	11.4
1952 <u>e/</u>	971,943 <u>f/</u>	240,617 <u>f/</u>	24.8

a. 604/.

b. Does not include interzonal trade with the French Zone of Germany.

c. 605/.d. 606/.

e. The share of East-West trade in the total imports and exports in 1952 is higher when East German figures for the East-West trade are used than when US Department of Commerce totals

are used. See also Table 60, footnote h, below.

f. 607/.g. 608/.

h. Based on the results for January-September.

50X1  
50X1

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Table 60

Value of the Trade of East Germany with the West by Countries  
1948-49 and 1951-52

											Current Thousand US \$	
<u>Exports</u>	<u>Total</u>	<u>West Germany</u>	<u>Netherlands</u>	<u>Sweden</u>	<u>Norway</u>	<u>Denmark</u>	<u>Switzerland</u>	<u>Finland</u>	<u>Austria</u>	<u>France</u>	<u>Other Western European Countries</u>	<u>Other Western Countries</u>
1948 a/	48,419.0 b/	24,900.0 c/	8,318.2	813.0	2,961.5	2,052.6	3,465.4	413.4	687.5	42.2	4,125.6	639.6
1949 d/	94,616.0 b/	55,820.2 c/	9,126.9	4,175.2	1,132.8	7,140.2	5,915.8	1,342.4	1,791.6	423.6	5,922.0	1,825.3
1951 e/	112,964.0 f/	29,180.0	10,388.0	18,442.0	6,625.0	12,449.0	6,089.0	5,489.0	7,442.0	1,523.0	12,118.0	3,214.0
1952 g/	h/123,731.0 f/	19,335.0	11,067.0	20,007.0	9,768.0	14,046.0	4,270.0	8,531.0	8,259.0	6,006.0	10,866.0	11,576.0
<u>Imports</u>												
1948 i/	63,358.0 b/	31,500.3 c/	8,459.7	1,064.7	2,109.1	1,535.9	1,489.2	132.2	5,066.6	16.6	11,697.9	285.8
1949 j/	160,448.0 b/	60,160.4 c/	24,220.4	6,802.0	3,838.4	7,423.6	4,064.0	1,436.0	2,708.0	254.4	47,493.2	2,047.6
1951 k/	101,011.0	35,291.0	13,025.0	12,238.0	6,292.0	16,596.0	5,189.0	1,797.0	4,114.0	348.0	6,046.0	75.0
1952 l/	110,603.0	35,016.0	14,057.0	16,273.0	7,329.0	12,479.0	7,960.0	2,908.0	5,648.0	2,916.0	4,630.0	1,387.0

- a. 611/.
- b. Totals for 1948-49 do not include trade with the French Zone of Germany.
- c. Estimated.
- d. 612/.
- e. 613/.
- f. Countries not separately specifying East or West Germany not included.
- g. 614/.

50X1

50X1

(1952)	<u>Total</u>	<u>West Germany</u>	<u>Netherlands</u>	<u>Sweden</u>	<u>Norway</u>	<u>Denmark</u>	<u>Switzerland</u>	<u>Finland</u>	<u>Austria</u>	<u>France</u>	<u>Other Western European Countries</u>	<u>Other Western Countries</u>
<u>Exports</u>	174,567	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<u>Imports</u>	240,617	23,713	34,726	31,184	7,808	25,575	28,159	9,076	8,579	7,771	41,626	22,400

- i. 616/.
- j. 617/.
- k. 618/.
- l. 619/.

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northwestern Europe dominated the import field and accounted for almost 90 percent of total imports into East Germany from the West in 1951 and 75 percent in 1952. Although exports were fairly evenly divided among the foregoing countries, West Germany was a more important source of imports, accounting for 38 percent in 1951 and 23 percent in 1952. The decline in trade with northwestern Europe in 1952 was largely replaced by an increase in trade with France and Finland.

The commodity composition of East German trade with the West underlines the East German emphasis on industrial development at the expense of production of food and other consumer goods. Table 61\* presents the commodity composition of East German trade with the West for 1948, 1949, and 1951. Over 60 percent of East German exports to the West in 1951 consisted of industrial products, while almost 50 percent of East German imports were composed of food, beverages and tobacco, and fats and oils, with food alone comprising most of this amount.

Restrictions on trade with the West, whether designed to promote Soviet Bloc autarky or to conserve supplies of Western currency, appear to have been relaxed to some extent in late 1952 and 1953. Evidence to this effect rests chiefly on an increasing number of trade agreements with the free world and on the comparative volume of trade in 1952 and 1953. The agreements with Egypt in February of 1953 and with Argentina are cases in point. Comparative data on East German trade with Western countries, excluding West Germany, for the first 6 months of 1952 and 1953 are given in Table 62.\*\* At the beginning of 1953 it was estimated that East Germany owed West Germany DMW (Deutsche Mark West) 35 million to DMW 40 million. There were earnest efforts to reduce this balance in March, April, May, and June of 1953, but a reversal of this trend had resulted in an increase of the deficit by almost DMW 5 million on 1 September 1953.

## 2. East German Trade with Other Soviet Bloc Countries.

East German trade with the Soviet Bloc amounted to about 75 percent of the total foreign trade of the country for 1951-52. For the year 1952, total foreign trade turnover with the Satellites amounted to about US \$1.3 billion. Both imports and exports were\*\*\*

\* Table 61 follows on p. 203.

\*\* Table 62 follows on p. 204.

\*\*\* Continued on p. 205.

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Table 61

Commodity Composition of the Trade of East Germany with the West a/\*  
1948, 1949, and 1951

	Current Thousand US \$		
Exports	1948 <u>b/ c/</u>	1949 <u>d/ c/</u>	1951 <u>e/</u>
Food	5.4	2,551.6	4,387.0
Beverages and Tobacco	0.0	280.4	254.0
Raw Materials, Inedible	8,462.2	1,739.3	13,841.0
Mineral Fuels and Related Materials	638.4	95.2	19,489.0
Animal and Vegetable Oils and Fats	0.0	0.0	91.0
Chemicals	1,796.5	2,901.2	19,779.0
Manufactured Goods	5,908.1	14,433.6	13,693.0
Machinery and Transport Equipment	3,261.9	12,120.4	13,296.0
Miscellaneous Manufactured Articles	3,422.5	4,639.6	2,164.0
Miscellaneous Commodities and Transactions	23.6	34.5	14,409.0
<b>Total</b>	<b>23,518.6</b>	<b>38,795.8</b>	<b>101,403.0</b>
Imports	1948 <u>b/ c/</u>	1949 <u>g/ c/</u>	1951 <u>h/</u>
Food	2,154.8	14,463.2	42,366.0
Beverages and Tobacco	555.5	731.2	205.0
Raw Materials, Inedible	12,415.1	5,877.2	11,448.0
Mineral Fuels and Related Materials	2,819.9	3,515.2	5,862.0
Animal and Vegetable Oils and Fats	3.0	9,659.2	1,725.0
Chemicals	1,971.5	56,415.2	7,191.0
Manufactured Goods	11,347.5	7,272.0	14,487.0
Machinery and Transport Equipment	222.4	897.2	3,496.0
Miscellaneous Manufactured Articles	356.0	1,417.6	732.0
Miscellaneous Commodities and Transactions	12.0	39.6	7,073.0
<b>Total</b>	<b>31,857.7</b>	<b>100,287.6</b>	<b>94,585.0</b>

\* Footnotes for Table 61 follow on p. 204.

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Table 61

Commodity Composition of the Trade of East Germany with the West a/  
1948, 1949, and 1951  
(Continued)

- 
- a. Table 61 cannot be reconciled with Table 60, because each is derived from a different compilation by the US Department of Commerce.
  - b. 620/.
  - c. Totals for 1948-49 do not include West Germany.
  - d. 621/.
  - e. 622/.
  - f. 623/.
  - g. 624/.
  - h. 625/.

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Table 62

Comparative Value of the Trade of East Germany  
with the West, excluding West Germany,  
First Six Months of 1952 and 1953

	Current Thousand US \$	
	January to June 1952	January to June 1953
Exports	51,817	69,325
Imports	44,009	48,968

nearly seven times as great in 1952 as in 1948. The percentage increase in trade with the Bloc exceeded the percentage increase in trade with the West, and in dollar terms the increase was several times greater.

Table 63\* shows the relative importance of Soviet Bloc countries in the trade of East Germany with the Bloc in the period 1948-52. The USSR accounted for about half of East German exports to the Bloc for the 5 years and was the source of a slightly larger proportion of imports. Poland ranked next, accounting for about one-fourth of the exports and imports of East Germany to the Bloc. Czechoslovakia, Hungary, Rumania, and Bulgaria followed in that order. Trade with Communist China, although relatively small, shows a marked increase from 1951 to 1952. 626/ Imports of Chinese food-stuffs became especially important in the last quarter of 1952.

A detailed year-by-year comparison of the commodity composition of the trade of East Germany with the other Soviet Bloc countries over the postwar period is made difficult by the lack of comparable statistics. Table 64\*\* shows the composition of this trade for 1949. Exports in 1949 consisted chiefly of inedible raw materials, about 40 percent of the total; machinery and transport equipment, about 20 percent; and other manufactured goods, about 16 percent, with chemicals and miscellaneous other categories comprising the remainder. On the import side,\*\*\*

\* Table 63 follows on p. 206.

\*\* Table 64 follows on p. 207.

\*\*\* Continued on p. 208.

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Table 63

Distribution of the Trade of East Germany with Other Soviet Bloc Countries  
1948-52

									Percent
<u>Exports</u>	<u>Total</u>	<u>USSR</u>	<u>Poland</u>	<u>Czechoslovakia</u>	<u>Hungary</u>	<u>Bulgaria</u>	<u>Rumania</u>	<u>Albania</u>	<u>China</u>
1948	100.0	48.4	39.7	9.9	1.7	0.2	0.1	0	0
1949	100.0	67.2	22.4	8.3	1.0	0.8	0.3	0	0
1950	100.0	55.5	28.5	11.0	2.9	1.2	0.9	0	0
1951	100.0	55.2	22.4	11.0	4.3	1.7	2.2	0.3	2.9
1952	100.0	51.5	19.2	10.0	7.2	1.9	3.4	0.4	6.4
<u>Imports</u>									
1948	100.0	56.8	31.5	11.1	0.1	0.5	0	0	0
1949	100.0	63.9	18.1	11.7	3.5	1.8	1.0	0	0
1950	100.0	54.5	24.4	11.8	6.9	1.4	1.0	0	0
1951	100.0	55.1	23.3	8.6	3.8	2.7	2.2	0	4.3
1952	100.0	52.8	18.9	8.0	7.1	1.9	3.7	0.4	7.2

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Table 64

Commodity Composition of the Trade of East Germany with Other Soviet Bloc Countries  
1949

Current Thousand US \$

Exports <u>628/</u>	Total	USSR	Poland	Czechoslovakia	Hungary	Bulgaria	Rumania	Albania	China
Food	11,592	11,158	431	3	0	0	0	0	0
Beverages and Tobacco	1,211	1,211	0	0	0	0	0	0	0
Raw Materials, Inedible	84,889	44,469	32,142	7,765	507	0	6	0	0
Mineral Fuels, Lubricants, and Related Materials	17,932	14,924	2,681	327	0	0	0	0	0
Animal and Vegetable Oils and Fats	0	0	0	0	0	0	0	0	0
Chemicals	13,516	7,843	2,271	2,727	270	388	17	0	0
Manufactured Goods	25,175	19,800	3,170	1,527	215	329	134	0	0
Machinery and Transport Equipment	42,785	34,941	3,316	2,525	1,035	734	234	0	0
Miscellaneous Manufactured Goods	7,511	3,170	1,866	2,079	73	226	97	0	0
Miscellaneous Commodities and Transactions	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>204,611</b>	<b>137,516</b>	<b>45,877</b>	<b>16,953</b>	<b>2,100</b>	<b>1,677</b>	<b>488</b>	<b>0</b>	<b>0</b>
Imports <u>629/</u>									
Food	11,088	676	1,708	1,016	3,926	2,379	1,383	0	0
Beverages and Tobacco	1,300	824	0	0	476	0	0	0	0
Raw Materials, Inedible	19,318	16,401	1,614	712	238	270	83	0	0
Mineral Fuels, Lubricants, and Related Materials	31,959	2,216	18,975	10,122	646	0	0	0	0
Animal and Vegetable Oils and Fats	6,747	6,747	0	0	0	0	0	0	0
Chemicals	3,297	2,015	626	481	127	48	0	0	0
Manufactured Goods	69,884	61,315	4,974	3,581	0	14	0	0	0
Machinery and Transport Equipment	10,100	8,067	0	1,993	40	0	0	0	0
Miscellaneous Manufactured Articles	435	292	0	143	0	0	0	0	0
Miscellaneous Commodities and Transactions	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>154,128</b>	<b>98,553</b>	<b>27,897</b>	<b>18,048</b>	<b>5,453</b>	<b>2,711</b>	<b>1,466</b>	<b>0</b>	<b>0</b>

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manufactured goods, excluding machinery and transport equipment, accounted for about 46 percent of the total; mineral fuels and lubricants, about 20 percent; and inedible crude materials, about 13 percent, with food, machinery, and other lesser categories accounting for the remainder.

Beginning in 1950, exports and imports were classified by industry rather than by commodity groupings as in the earlier years. In 1952 the machinery construction industry contributed 38 percent of total East German exports to the Soviet Bloc countries; chemicals, about 20 percent; and electrical engineering products and precision equipment, about 21 percent. A complete breakdown of imports is not available, but large imports of food and agricultural and industrial raw materials suggest that East Germany is becoming increasingly dependent on Bloc sources of supply. 627/

B. Role of East Germany in the Soviet Bloc Economy.

As long as East Germany remains under Soviet control, its total production must be considered in estimating the economic capability of the Soviet Bloc for particular courses of action.\* In terms of GNP, East Germany in 1953 represented about 31 percent of the Satellite total and about 11 percent of the GNP of the USSR. Among the European Satellites, East Germany comes second in size of GNP, ranking slightly behind Poland. 630/ The pattern of specialization of the East German economy in the Bloc may be appraised in the light of the commodity composition of the trade of the country with other members of the Bloc.\*\* In brief, East Germany as an advanced industrial area is an important supplier of machinery, chemicals, electrical engineering products, and precision equipment and in return receives primarily agricultural and industrial raw materials, food, mineral fuels, lubricants, and certain manufactured products.

East Germany has been supplying to the USSR an estimated one-fourth to one-half of the uranium available to the Soviet atomic energy program. This is considerably more than is produced by all the other Satellites combined. The rate of production in East Germany

\* For a discussion of Soviet takings from East Germany in the form of reparations and other uncompensated deliveries, see I, A, and I, B, 4, above.

\*\* See A, above.

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is being maintained by deeper mining and by increasing the exploitation of very low-grade ores at a greatly increased cost in capital investment and operating expenses. Significant changes in this production rate are not expected to occur by 1955. 631/

The advanced industrial character of East Germany and certain specializations imposed by its small area are shown by an examination of its array of basic raw materials and intermediate and final products, in relation to the production of the Soviet Bloc\* as a whole and the USSR in particular. As may be seen from Table 72,\*\* East Germany is not an especially important producer of ferrous metals, being limited in this respect by lack of high-grade ores and coking coal. In nonferrous metals, East Germany contributes 38 percent of secondary copper and almost 10 percent of refined lead. Although completely lacking in crude petroleum production, East Germany has an important synthetic liquid fuel industry which accounts for about two-thirds of the total output of the Bloc. This represents, however, only 2.6 percent of the combined output of the Bloc of natural and synthetic petroleum products. East Germany is a particularly important producer of chemicals, accounting for the following approximate percentages of total Bloc production: ammonia, 29; nitric acid, 17; chlorine, 37; calcium carbide, 55; caustic soda, 29; refined phenol, 59; and synthetic rubber, 22.

Among agricultural products and fibers, sugar and rayon are important contributions of East Germany to the production of the Soviet Bloc, representing, respectively, about 11 percent and 53 percent of the Bloc totals. On the other hand, the country is deficient in grains, vegetable oils, and natural fibers.

East Germany is an important producer in the Soviet Bloc of certain types of industrial products, especially machine tools, which account for 16 percent of the Bloc total, and certain types of electrical equipment, particularly turbines and transformers.

This enumeration of leading commodities produced by East Germany as a percentage of the Soviet Bloc total should be supplemented by other items in the production of which East Germany does not rank

\* Including Communist China.

\*\* See this table (p. 234, below) for production in physical units and for comparable totals for the Soviet Bloc and the USSR.

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so favorably. Taking all economic factors into consideration, however, it is clear that East Germany represents a rich prize among the Satellites for economic reasons alone. If the Soviet cancelation of reparations and suspension of other uncompensated deliveries are not replaced by new exactions, the Soviet economic benefit from this area will be smaller than in the past and will be measured by the advantages derived from trade. If, however, Soviet control over East Germany remains secure, the resources and production of this area must be counted among the elements constituting Soviet capabilities for hot or cold war.

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APPENDIX A

TABLES 65-72

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Table 65

Supply, Distribution, and Stocks of Agricultural Commodities in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

Thousand Metric Tons

	1935-38 Average a/* b/	1948 b/	1950 c/	1951 d/	1952 d/	1955 Plan
<u>Supply</u>						
<u>Production</u>						
Bread Grains (Wheat, Rye)	3,722	3,025	3,600	3,623	3,276	N.A.
Coarse Grains (Barley, Oats, Corn, and the like)	3,016	1,810	2,176	2,306	2,191	N.A.
Potatoes	14,225	11,551	13,098	11,152	10,162	17,507 e/
Sugar, Refined (about 90 Percent of Raw Quantity)	799 f/	612 f/	702	675 f/	460	799 f/
Meat (Excluding Slaughter Fats, Bacon)	615	229	408	490	619	1,357 e/
Animal Fats (Including Butter)	245	82	100	135 f/	195	345 f/
Vegetable Oils	20	30	49	53	52	88 g/
<u>Imports</u>						
Bread Grains (Wheat, Rye)	0	0	320	535	535	N.A.
Coarse Grains (Barley, Oats, Corn, and the like)	0	0	390	295	215	N.A.
Potatoes	0	0	0	0	0	N.A.
Sugar, Refined (about 90 Percent of Raw Quantity)	0 f/	0 f/	0	0 f/	0	N.A.
Meat (Excluding Slaughter Fats, Bacon)	80	N.A.	75	80	0	N.A.
Animal Fats (Including Butter)	40	N.A.	N.A.	30	30	N.A.
Vegetable Oils	215	N.A.	N.A.	28	15	17 g/

\* Footnotes for Table 65 follow on p. 216.

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Table 65

Supply, Distribution, and Stocks of Agricultural Commodities in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Thousand Metric Tons					
	1935-38 Average <u>a/</u> <u>b/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>d/</u>	1955 Plan
<u>Distribution</u>						
<u>Domestic Consumption</u>						
Bread Grains (Wheat, Rye)	3,157	2,705	3,500	3,302	3,190	N.A.
Coarse Grains (Barley, Oats, Corn, and the like)	2,636	1,510	2,286	2,585	2,406	N.A.
Potatoes	13,625	10,851	12,698	10,652	9,862	N.A.
Sugar, Refined (about 90 Percent of Raw Quantity)	399 <u>f/</u>	312 <u>f/</u>	315	333	178	N.A.
Meat (Excluding Slaughter Fats, Bacon)	695	N.A.	456	485	464	N.A.
Animal Fats (Including Butter)	285	67	N.A.	N.A.	171	N.A.
Vegetable Oils	235	30	N.A.	60	54	82 <u>f/</u>
<u>Exports</u>						
Bread Grains (Wheat, Rye) <u>h/</u>	565	20	27 <u>i/</u>	0	0	N.A.
Coarse Grains (Barley, Oats, Corn, and the like)	180	100	0	0	0	N.A.
Potatoes	600	700 <u>j/</u> <u>f/</u>	100	200	100	N.A.
Sugar, Refined (about 90 Percent of Raw Quantity)	400	300 <u>j/</u> <u>f/</u>	200	158	182 <u>f/</u> <u>j/</u>	320 <u>k/</u>
Meat (Excluding Slaughter Fats, Bacon)	0	25	0	4 <u>g/</u>	100 <u>j/</u> <u>g/</u>	N.A.
Animal Fats (Including Butter)	0	15 <u>f/</u>	N.A.	0	0	N.A.
Vegetable Oils	0	N.A.	N.A.	0	0	0 <u>g/</u>
<u>Reparations</u>						
Sugar, Refined (about 90 Percent of Raw Quantity)		N.A.	108 <u>g/</u>	83 <u>g/</u>	N.A.	N.A.

S-E-C-R-E-T

S-E-C-R-E-T

Table 65

Supply, Distribution, and Stocks of Agricultural Commodities in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

Thousand Metric Tons

	1935-38 Average <u>a/</u> <u>b/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>d/</u>	1955 Plan
<u>Distribution (Continued)</u>						
<u>Occupation Costs</u>						
Bread Grains (Wheat, Rye)		300 <u>l/</u> <u>m/</u>	300 <u>l/</u> <u>n/</u>	325 <u>l/</u> <u>o/</u>	325 <u>l/</u>	N.A.
Coarse Grains (Barley, Oats, Corn, and the like)		200 <u>l/</u> <u>m/</u>	280 <u>l/</u>	16 <u>p/</u>	0	N.A.
Potatoes		N.A.	300 <u>o/</u>	300 <u>o/</u>	200	N.A.
Sugar, Refined (about 90 Percent of Raw Quantity)		N.A.	N.A.	77 <u>g/</u>	N.A.	N.A.
Meat (Excluding Slaughter Fats, Bacon)		N.A.	47 <u>p/</u>	97 <u>g/</u>	N.A.	N.A.
Animal Fats (Including Butter)		N.A.	9 <u>p/</u>	13 <u>o/</u>	37	N.A.
Vegetable Oils		N.A.	N.A.	3	3	3 <u>f/</u>
<u>Stocks</u>						
<u>Stockpiles</u>						
Bread Grains (Wheat, Rye) <u>g/</u>	N.A.	0	0	532	828	N.A.
Coarse Grains (Barley, Oats, Corn, and the like)	N.A.	0	0	0	0	N.A.
Potatoes	N.A.	0	0	0	0	N.A.
Sugar, Refined (about 90 Percent of Raw Quantity)	N.A.	0 <u>f/</u>	79 <u>r/</u>	104 <u>f/</u>	704	N.A.
Meat (Excluding Slaughter Fats, Bacon)	N.A.	0	N.A.	55 <u>s/</u>	110 <u>t/</u>	N.A.
Animal Fats (Including Butter)	N.A.	0	N.A.	8	25	N.A.
Vegetable Oils	N.A.	0	N.A.	19 <u>g/</u>	19 <u>f/</u>	N.A.

S-E-C-R-E-T



S-E-C-R-E-T

Table 65

Supply, Distribution, and Stocks of Agricultural Commodities in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

- 
- a. Or any year within the period (preferably 1938) if the average is not available.  
b. Except where otherwise indicated, estimates for 1935-38 and for 1948 are those of the Foreign Agricultural Service, US Department of Agriculture.  
c. Except where otherwise indicated, estimates for 1950 are CIA estimates.
- e. 633/.  
f. Estimated.  
g. 634/.  
h. On the basis of the agricultural year, 1 July of the year named to 30 June of the following year.  
i. 635/.  
j. Includes uncompensated deliveries of uncertain amount.  
k. 636/.  
l. Amounts may include some reparations deliveries.  
m. 637/.  
n. 638/.  
o. 639/.  
p. 640/.  
q. Amounts represent surpluses rather than grain actually controlled by the government. Some of this grain may have been hoarded on farms. Estimates of bread grain in state reserves in 1952 range from 200,000 tons to 400,000 tons.  
r. Amount which balances reported production and consumption.  
s. 641/.  
t. Planned amount in state reserves.

50X1

S-E-C-R-E-T

Table 66

Supply of Iron and Steel, Metallurgical Coke, and Ferroalloys in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

	Unit	1935-38 Average a/*	1948	1950	1951	1952	1955 Plan
<u>Supply</u>							
<u>Production</u>							
Iron Ore b/	Thousand Metric Tons	617 642/	283 c/	400 c/	490 c/	773 c/	3,650 643/
Pig Iron	Thousand Metric Tons	463 644/	208 645/	337 646/	341 647/	654 648/	1,850 649/
Metallurgical Coke	Thousand Metric Tons	280 650/	227 651/	254 652/	262 d/	264 d/	268 d/
Steel Ingots	Thousand Metric Tons	1,695 653/	332 654/	968 655/	1,536 656/	1,800 e/	3,000 659/
Rolled Steel	Thousand Metric Tons	1,300 660/	246 661/	722 662/	851 663/	1,362 664/	2,235 665/
Manganese Ore	Thousand Metric Tons	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Ferromanganese	Thousand Metric Tons	N.A.	N.A.	8.4 666/	9.7 667/	16.9 f/ 668/	20.2 669/
Ferrosilicon (45 Percent Silicon)	Thousand Metric Tons	N.A.	N.A.	17.9 670/	28.6 671/	42.2 672/	47.0 673/
Ferrochromium	Thousand Metric Tons	N.A.	N.A.	5.7 674/	3.2 675/	7.1 676/	7.0 677/
Nickel	Metric Tons	1,000	N.A.	92 678/	110 679/	176 680/	1,500 681/
Tungsten	Metric Tons	N.A.	N.A.	32.2 682/ f/	74.3 683/	89.2 684/	100 685/
<u>Imports</u>							
Iron Ore g/	Thousand Metric Tons	N.A.	279 h/	531 h/	524 h/	1,000 686/	1,000 687/
Pig Iron	Thousand Metric Tons	N.A.	N.A.	N.A.	222 688/	235 689/	0 690/
Metallurgical Coke	Thousand Metric Tons	N.A.	N.A.	N.A.	900 691/ f/	1,300 f/ 692/	1,300 f/
Steel Ingots	Thousand Metric Tons	N.A.	N.A.	N.A.	36 694/	126 695/	N.A.
Rolled Steel	Thousand Metric Tons	N.A.	N.A.	N.A.	N.A.	438 696/	150 697/
Manganese Ore	Thousand Metric Tons	N.A.	12.9 698/	25 699/	42 700/ f/	64.7 i/ 701/	250 702/
Ferromanganese	Thousand Metric Tons	N.A.	0.3 703/	N.A.	10.0 704/	6.0 705/	N.A.
Nickel	Metric Tons	N.A.	N.A.	466 706/	591 707/	537 708/	N.A.
Tungsten	Metric Tons	N.A.	N.A.	N.A.	N.A.	474 709/	N.A.

\* Footnotes for Table 66 follow on p. 218.

S-E-C-R-E-T

S-E-C-R-E-T

Table 66

Supply of Iron and Steel, Metallurgical Coke, and Ferroalloys in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

- 
- a. Or any year within the period (preferably 1936) if the average is not available.
  - b. Estimated quantities of ore as mined. The iron content of East German ore is believed to average about 30 percent.
  - c. Estimated.
  - d. Estimated.
  - e.
  - f. Planned amount.
  - g. The iron content of imported ores is believed to average about 50 percent.
  - h. Difference between estimated production and estimated consumption (after adjustment of these quantities to a 50 percent iron content basis).
  - i. January-July 1952.

50X1

S-E-C-R-E-T

S-E-C-R-E-T

Table 67

Supply and Distribution of Principal Nonferrous Metals in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

	1935-38 Average a/	1948	1950	1951	1952	1955 Plan
<i>Metric Tons</i>						
<u>Supply</u>						
<u>Production</u>						
Aluminum, Primary	26,636 <u>710/</u>	377 <u>711/</u>	1,908 <u>712/</u>	920 <u>713/</u>	9,232 <u>714/</u>	50,000 <u>715/</u>
Copper	N.A.	25,800 <u>716/</u>	35,166 <u>716/</u>	36,908 <u>717/</u>	36,920 <u>718/</u>	52,900 <u>719/</u>
From Ore	23,800 <u>720/</u>	6,400	9,090	10,755	10,420	26,400
From Scrap	N.A.	19,400	26,076	26,153	26,500 <u>721/ c/</u>	26,500 <u>722/</u>
Lead	N.A.	12,000 <u>723/</u>	16,769 <u>723/</u>	20,720 <u>724/</u>	19,022 <u>725/</u>	38,100 <u>726/</u>
From Ore	N.A.	1,000	2,718	2,608 <u>727/</u>	3,500	N.A.
From Scrap	N.A.	11,000	14,051	18,112	15,522	N.A.
<u>Imports</u>						
Aluminum, Primary	N.A.	0	N.A.	8,000 <u>c/</u>	5,000 <u>c/</u>	0 <u>728/</u>
Copper	N.A.	N.A.	10,000 <u>b/</u>	10,000 <u>b/</u>	10,050 <u>729/ c/</u>	10,000 <u>730/</u>
Lead	N.A.	15,000 <u>b/</u>	14,000 <u>b/</u>	7,000 <u>c/</u>	8,500 <u>c/</u>	10,000 <u>731/</u>
<u>Distribution</u>						
<u>Domestic Consumption</u>						
Aluminum, Primary	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Copper	N.A.	N.A.	40,166	47,908 <u>b/</u>	46,926 <u>b/</u>	63,835 <u>732/</u>
Lead	N.A.	27,000	30,769 <u>b/</u>	27,720 <u>b/</u>	27,522 <u>b/</u>	48,100 <u>733/</u>
<u>Exports</u>						
Aluminum, Primary	N.A.	N.A.	N.A.	N.A.	3,600 <u>b/</u>	0 <u>734/</u>
Copper	N.A.	0	0	0	0	0 <u>735/</u>
Lead	N.A.	0	0	0	0	0 <u>736/</u>

a. Or any year within the period (preferably 1938) if the average is not available.

b. Estimated.

c. Planned amount.

S-E-C-R-E-T

Table 68

Supply, Distribution, and Stocks of Selected Chemicals in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

	Thousand Metric Tons					
	1935-38 Average <u>a</u> / <sup>*</sup>	1948 <u>b</u> / <sub>f</sub>	1950 <u>c</u> / <sub>f</sub>	1951 <u>d</u> / <sub>f</sub>	1952 <u>e</u> / <sub>f</sub>	1955 Plan <u>f</u> / <sub>f</sub>
<u>Supply</u>						
<u>Production</u>						
Carbon Disulfide	N.A.	16.7	29.0	35.3	32.6	50.0
Sulfuric Acid (100 Percent Acid Basis)	370.1 <u>g</u> / <sub>f</sub>	186	280	363	362	552
Soda Ash	362.1 <u>h</u> / <sub>f</sub>	82.1	102.7	121.8	190.8	64.0
Caustic Soda	124.7 <u>i</u> / <sub>f</sub>	110.2	148.7	184.0	208.9	300
Nitric Acid	325 <u>j</u> / <sub>f</sub>	59.1 <u>k</u> / <sub>f</sub>	180.0 <u>l</u> / <sub>f</sub>	234.5	246.1	300.0
Calcium Carbide	390 <u>j</u> / <sub>f</sub>	412.4 <u>h</u> / <sub>f</sub>	628	678.4	690.4	825
Nitrogen Fertilizers (as Nitrogen)	465.2 <u>m</u> / <sub>f</sub>	135 <u>j</u> / <sub>f</sub>	231.0	252.3	258.3	300
Ammonium Sulfate (as Nitrogen)	92.1 <u>n</u> / <sub>f</sub>	74 <u>o</u> / <sub>f</sub>	132.0	135.4	140.4	154.0 <u>p</u> / <sub>f</sub>
Sodium Nitrate (as Nitrogen)	28.5 <u>m</u> / <sub>f</sub>	4.0 <u>i</u> / <sub>f</sub>	5.0	3.8	4.5	6.0 <u>q</u> / <sub>f</sub>
Calcium Ammonium Nitrate (as Nitrogen)	282.6 <u>m</u> / <sub>f</sub>	36 <u>j</u> / <sub>f</sub>	62	80.2	84.7	92.0 <u>r</u> / <sub>f</sub>
Potassium Ammonium Nitrate (as Nitrogen)	N.A.	5 <u>j</u> / <sub>f</sub>	9	7.1	8.2	13 <u>p</u> / <sub>f</sub>
Calcium Cyanamide (as Nitrogen)	51.5 <u>m</u> / <sub>f</sub>	15.2 <u>g</u> / <sub>f</sub>	23	25.8	20.5	35.0 <u>p</u> / <sub>f</sub>
Caprolactam	N.A.	0.6 <u>r</u> / <sub>f</sub>	0.9 <u>s</u> / <sub>f</sub>	1.7	2.1	10
Benzene (Benzol)	10.1 <u>t</u> / <sub>f</sub> <u>u</u> / <sub>f</sub>	5.9 <u>v</u> / <sub>f</sub> <u>w</u> / <sub>f</sub>	8.5 <u>x</u> / <sub>f</sub> <u>y</u> / <sub>f</sub>	10.0 <u>j</u> / <sub>f</sub>	10.3 <u>j</u> / <sub>f</sub>	15.1
Pure Phenol	10.0 <u>j</u> / <sub>f</sub>	4.0 <u>z</u> / <sub>f</sub> <u>w</u> / <sub>f</sub>	5.2 <u>aa</u> / <sub>f</sub> <u>bb</u> / <sub>f</sub>	7.9 <u>cc</u> / <sub>f</sub> <u>dd</u> / <sub>f</sub>	9.2 <u>j</u> / <sub>f</sub>	15.3
<u>Imports</u>						
Carbon Disulfide	N.A.	0.5	0	0	0	0
Sulfuric Acid (100 Percent Acid Basis)	0 <u>j</u> / <sub>f</sub>	0	0	0	8.4	0
Soda Ash	0 <u>j</u> / <sub>f</sub>	0	34.2	20.8	16.0	0
Caustic Soda	N.A.	0	15.2	3.7	N.A.	0
Benzene (Benzol)	N.A.	8.0 <u>ee</u> / <sub>f</sub>	16.5 <u>x</u> / <sub>f</sub>	20.8 <u>j</u> / <sub>f</sub>	26.0 <u>j</u> / <sub>f</sub>	35.0

\* Footnotes for Table 68 follow on p. 223.

S-E-C-R-E-T

S-E-C-R-E-T

Table 68

Supply, Distribution, and Stocks of Selected Chemicals in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Thousand Metric Tons					
	1935-38 Average <u>a/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>e/</u>	1955 Plan <u>f/</u>
<u>Distribution</u>						
<u>Domestic Consumption</u>						
Carbon Disulfide	N.A.	16.9	28.6	31.2	30.3 <u>j/</u>	49.0
Sulfuric Acid (100 Percent Acid Basis)	N.A.	186.3	289.5	362	370.3 <u>j/</u>	550
Soda Ash	N.A.	77.0	140	142.2	206 <u>j/</u>	610
Caustic Soda	N.A.	110.0	167.4	184.4	206 <u>j/</u>	290
Nitric Acid	N.A.	59.1 <u>j/</u>	180.0 <u>j/</u>	233.4	246.0 <u>j/</u>	298.0
Calcium Carbide	N.A.	412.0 <u>j/</u>	612	645.1	654 <u>j/</u>	787
Nitrogen Fertilizers (as Nitrogen)	218 <u>ff/</u> <u>gg/</u>	135 <u>j/</u>	195	214.7	208.7 <u>j/</u>	253
Ammonium Sulfate (as Nitrogen)	N.A.	N.A.	93	104.4	99.9 <u>j/</u>	117 <u>p/</u>
Sodium Nitrate (as Nitrogen)	N.A.	4.0 <u>j/</u>	5.0	3.8	4.5 <u>j/</u>	6.0 <u>p/</u>
Calcium Ammonium Nitrate (as Nitrogen)	N.A.	N.A.	57	76.3	76.8 <u>j/</u>	72 <u>p/</u>
Potassium Ammonium Nitrate (as Nitrogen)	N.A.	5 <u>j/</u>	10	7.4	8.2 <u>j/</u>	13 <u>p/</u>
Calcium Cyanamide (as Nitrogen)	N.A.	15.2 <u>j/</u>	25	22.7	19.3 <u>j/</u>	35 <u>p/</u>
Caprolactam	N.A.	0.6 <u>j/</u>	0.9 <u>j/</u>	1.7	2.1 <u>j/</u>	8.9
Benzene (Benzol)	N.A.	13.9 <u>j/</u>	25.0 <u>j/</u>	30.8 <u>j/</u>	36.3 <u>j/</u>	50.0
Pure Phenol	N.A.	4.2 <u>j/</u>	4.7 <u>j/</u>	6.9 <u>j/</u>	9.0 <u>j/</u>	17.4
<u>Exports</u>						
Carbon Disulfide	N.A.	0	0.4	3.2	2.3	0
Sulfuric Acid (100 Percent Acid Basis)	N.A.	0	0	1.2	0	0
Caustic Soda	N.A.	0	0	2.4	1.0	0
Nitric Acid	N.A.	N.A.	N.A.	1.1	0.1	0
Calcium Carbide	N.A.	N.A.	13.0	34.7	26.2	40
Nitrogen Fertilizers (as Nitrogen)	N.A.	N.A.	36	40.7	48.3	50
Ammonium Sulfate (as Nitrogen)	N.A.	N.A.	31	33.9	39.8	30 <u>p/</u>
Sodium Nitrate (as Nitrogen)	N.A.	N.A.	0	0	19.5 <u>ii/</u>	0 <u>p/</u>
Calcium Ammonium Nitrate (as Nitrogen)	N.A.	N.A.	5	4.9	7.3	20 <u>p/</u>
Calcium Cyanamide (as Nitrogen)	N.A.	N.A.	0	1.9	1.2	0 <u>p/</u>
Pure Phenol	N.A.	N.A.	0.5 <u>jj/</u>	1.0 <u>kk/</u>	0.2 <u>ii/</u>	0

S-E-C-R-E-T

S-E-C-R-E-T

Table 68

Supply, Distribution, and Stocks of Selected Chemicals in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Thousand Metric Tons					
	1935-38 Average <u>a/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>e/</u>	1955 Plan <u>f/</u>
<u>Distribution (Continued)</u>						
<u>Reparations</u>						
Sulfuric Acid (100 Percent Acid Basis)		0	0 <u>hh/</u>	0	0.1	0
Soda Ash	5.3	0	0	0	0	0
Caustic Soda	0	0	0	0	6.1	0
Calcium Carbide	0	0	0	0	0	1.0
Nitrogen Fertilizers (as Nitrogen)	N.A.	0	0	0	1.3	0
Ammonium Sulfate (as Nitrogen)	N.A.	N.A.	N.A.	0	0.7	0 <u>p/</u>
Calcium Ammonium Nitrate (as Nitrogen)	N.A.	N.A.	N.A.	0	0.6	0 <u>p/</u>
<u>Occupation Costs</u>						
Sulfuric Acid (100 Percent Acid Basis)	0.2	0	0 <u>hh/</u>	0	0	0
Soda Ash	0.5	0	N.A.	0	0.8	0
Caustic Soda	0.2	0	N.A.	0	0.6	0
Calcium Carbide	0.4	0	N.A.	0.2	0.8	N.A.
<u>Stocks</u>						
<u>Operational Stocks</u>						
Carbon Disulfide	N.A.	0.3	0.9	1.8	N.A.	1.0
Sulfuric Acid (100 Percent Acid Basis)	N.A.	2.1	3.9 <u>hh/</u>	3.7	1.0 <u>j/</u>	2.5
Soda Ash	N.A.	0.1	0.4	1.7	N.A.	32.0
Caustic Soda	N.A.	0.1	0.6	1.4	N.A.	12.0
Nitric Acid	N.A.	N.A.	N.A.	0.5	17.0 <u>j/</u>	4.0
Calcium Carbide	N.A.	0.4	8.0	0.2	8.4 <u>ll/</u>	2.0

S-E-C-R-E-T

S-E-C-R-E-T

Table 68

Supply, Distribution, and Stocks of Selected Chemicals in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Thousand Metric Tons					
	1935-38 Average <u>a/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>e/</u>	1955 Plan <u>f/</u>
<u>Operational Stocks (Continued)</u>						
Nitrogen Fertilizers (as Nitrogen)	N.A.	N.A.	10.0	7.7	N.A.	14.0
Ammonium Sulfate (as Nitrogen)	N.A.	N.A.	6.0	3.4	N.A.	10.0 <u>p/</u>
Calcium Ammonium Nitrate (as Nitrogen)	N.A.	N.A.	3.0	2.2	N.A.	3.0 <u>p/</u>
Potassium Ammonium Nitrate (as Nitrogen)	N.A.	N.A.	1.0	0.3	N.A.	1.0 <u>p/</u>
Calcium Cyanamide (as Nitrogen)	N.A.	N.A.	0	1.7	N.A.	0 <u>p/</u>
Caprolactam	N.A.	0 <u>j/</u>	0 <u>mm/</u>	0	13 <u>ll/</u>	1,580.0 <u>j/</u>
Benzene (Benzol)	N.A.	N.A.	N.A.	0.8 <u>y/</u>	0.7 <u>y/</u>	0.5
Pure Phenol	N.A.	0 <u>j/</u>	0 <u>j/</u>	N.A.	N.A.	0.4
<u>Stockpiles</u>						
Soda Ash	N.A.	0	0	N.A.	1.0 <u>nn/</u>	0
Caustic Soda	N.A.	0	0	N.A.	2.5 <u>nn/</u>	0
Calcium Carbide	N.A.	0 <u>j/</u>	0	N.A.		0

a. Or any year within the period (preferably 1938) if the average is not available.



- g. 7L2/.
- h. 7L3/.
- i. 7L4/.
- j. Estimated.
- k. Planned amount
- l. 7L6/.
- m. 1939. 7L7/.
- n. 1939. 7L8/.
- o. 7L9/.

50X1

50X1

S-E-C-R-E-T



S-E-C-R-E-T

Table 68

Supply, Distribution, and Stocks of Selected Chemicals in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

---

p.	750/.	
q.	Planned amount	<input type="text"/>
r.	752/.	
s.	Planned amount	
t.	754/.	
u.	755/.	
v.	756/.	
w.	757/.	
x.	758/.	
y.	759/.	
z.	Planned amount	<input type="text"/>
aa.	763/.	
bb.	761/.	
cc.	765/.	
dd.	766/.	
ee.	767/.	
ff.	Agricultural consumption only (which accounts for all but a small part of total consumption).	
gg.	768/.	
hh.	769/.	
ii.	770/.	
jj.	771/.	
kk.	772/.	
ll.	773/.	
mm.	774/.	
nn.	775/.	

50X1

50X1

S-E-C-R-E-T

Table 69

Supply, Distribution, and Stocks of Petroleum Products in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

	Thousand Metric Tons					
	1935-38 Average <u>a</u> / <sup>*</sup>	1948 <u>b</u> / <sup>/</sup>	1950 <u>c</u> / <sup>/</sup>	1951 <u>d</u> / <sup>/</sup>	1952 <u>d</u> / <sup>/</sup>	1955 Plan <u>d</u> / <sup>/</sup>
<u>Supply</u>						
<u>Production e</u> / <sup>/</sup>						
Distillates	246	571	850	1,052	1,203	N.A.
Aviation Gasolines	N.A.	20	80	90	105	( 927
Motor Gasolines	N.A.	290	382	422	527	650
Diesel Fuel	N.A.	261	380	475	466	N.A.
Jet Fuel	0	0	8	65	105	N.A.
Residual Fuel Oil	( 24	25	40	73	99	N.A.
Lubricants	( 24	50	82	103	98	130
<u>Imports</u>						
Distillates	N.A.	N.A.	N.A.	30 <u>f</u> / <sup>/</sup>	25 <u>g</u> / <sup>/</sup>	N.A.
Residual Fuel Oil and Lubricants	N.A.	N.A.	N.A.	25 <u>f</u> / <sup>/</sup>	20 <u>g</u> / <sup>/</sup>	N.A.
<u>Distribution</u>						
<u>Domestic Consumption h</u> / <sup>/</sup>						
Distillates	N.A.	N.A.	500 <u>i</u> / <sup>/</sup>	570 <u>j</u> / <sup>/</sup>	565 <u>k</u> / <sup>/</sup>	N.A.
Residual Fuel Oil and Lubricants	N.A.	N.A.	150 <u>i</u> / <sup>/</sup>	170 <u>j</u> / <sup>/</sup>	210 <u>k</u> / <sup>/</sup>	N.A.
<u>Exports (Including Reparations)</u>						
Distillates	N.A.	N.A.	N.A.	397 <u>l</u> / <sup>/</sup>	465	N.A.
Residual Fuel Oil and Lubricants	N.A.	N.A.	N.A.	8 <u>l</u> / <sup>/</sup>	3	N.A.
<u>Occupational Costs m</u> / <sup>/</sup>						

\* Footnotes for Table 69 follow on p. 226.

S-E-C-R-E-T

Table 69

Supply, Distribution, and Stocks of Petroleum Products in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	1935-38 Average <u>a/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>d/</u>	1955 Plan <u>d/</u>
<u>Stocks</u>						
<u>Operational Stocks <u>h/</u></u>						
Distillates	N.A.	N.A.	N.A.	166 <u>n/</u>	160 <u>n/</u>	N.A.
Residual Fuel Oil and Lubricants	N.A.	N.A.	N.A.	16 <u>n/</u>	15 <u>n/</u>	N.A.
<u>Stockpiles <u>h/</u></u>						
Distillates	N.A.	N.A.	N.A.	13 <u>n/</u>	20 <u>n/</u>	N.A.
Residual Fuel Oil and Lubricants	N.A.	N.A.	N.A.	7 <u>n/</u>	7 <u>n/</u>	N.A.

a. Or any year within the period (preferably 1938) if the average is not available.

e. Excluding the various minor products which apparently comprise about 10 percent of the total output of non-gaseous petroleum products. These estimates, which refer to total plant production without deductions for subsequent distribution losses, [redacted] Data for 1938 apply only to synthetic oil products manufactured by the Bergius and Fischer-Tropsch processes.

f. 779/.

g. 780/.

h. Civilian only.

i. Estimated.

j. 781/.

k. 782/.

l. 783/.

m. Specific data are not available, but most petroleum products used by the Soviet occupation forces are provided by East Germany.

n. 784/.

50X1  
50X1

50X1

S-E-C-R-E-T

S-E-C-R-E-T

Table 70

Supply, Distribution, and Stocks of Rubber and Tires in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

Unit	1935-38 Average <u>a/</u> *	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>e/</u>	1955 Plan <u>f/</u>
<u>Supply</u>						
<u>Production</u>						
Natural Rubber	Metric Tons	0	0	0	0	0
Synthetic Rubber	Thousand Metric Tons	4.8 <u>g/</u>	30.7	39.0	48.8	56.3
Reclaimed Rubber	Metric Tons	N.A.	N.A.	N.A.	1.8	N.A.
Motor Vehicle Tires	Thousands	N.A.	104	394	611	772
<u>Imports</u>						
Natural Rubber	Metric Tons	N.A.	928 <u>h/</u>	1,775	1,940 <u>i/</u>	2,151 <u>j/</u>
Synthetic Rubber	Thousand Metric Tons	N.A.	0	0	0	0
Reclaimed Rubber	Metric Tons	N.A.	N.A.	N.A.	0	N.A.
Motor Vehicle Tires	Thousands	N.A.	91	67	21	31
<u>Distribution</u>						
<u>Domestic Consumption</u>						
Natural Rubber	Metric Tons	N.A.	N.A.	2,161	N.A.	2,119 <u>j/</u>
Synthetic Rubber	Thousand Metric Tons	N.A.	14.9	21.2	24.0	28.4
Reclaimed Rubber	Metric Tons	N.A.	N.A.	N.A.	1,775	N.A.
Motor Vehicle Tires	Thousands	N.A.	130 <u>k/</u>	450	528	708
<u>Exports</u>						
Natural Rubber	Metric Tons	0	0	0	0	0
Synthetic Rubber	Thousand Metric Tons	N.A.	8.5	16.9	24.3	27.0
Reclaimed Rubber	Metric Tons	N.A.	N.A.	N.A.	0	N.A.
Motor Vehicle Tires	Thousands	0	0	0	0	0

\* Footnotes for Table 70 follow on p. 229.

S-E-C-R-E-T

Table 70

Supply, Distribution, and Stocks of Rubber and Tires in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Unit	1935-38 Average <u>a/</u>	1948 <u>b/</u>	1950 <u>c/</u>	1951 <u>d/</u>	1952 <u>e/</u>	1955 Plan <u>f/</u>
<u>Distribution (Continued)</u>							
<u>Reparations</u>							
Natural Rubber	Metric Tons		N.A.	0	N.A.	200 <u>j/</u>	N.A.
Synthetic Rubber	Thousand Metric Tons		7.2	N.A.	0	N.A.	N.A.
Reclaimed Rubber	Metric Tons		N.A.	N.A.	0	N.A.	N.A.
Motor Vehicle Tires	Thousands		N.A.	N.A.	N.A.	N.A.	80
<u>Occupation Costs</u>							
Natural Rubber	Metric Tons		N.A.	0	260 <u>l/</u>	485 <u>j/</u>	N.A.
Synthetic Rubber	Thousand Metric Tons		0	N.A.	1.4	1	N.A.
Reclaimed Rubber	Metric Tons		N.A.	N.A.	24	N.A.	N.A.
Motor Vehicle Tires	Thousands		69 <u>k/</u>	5	44	35	N.A.
<u>Stocks</u>							
<u>Operational Stocks</u>							
Natural Rubber	Metric Tons	N.A.	N.A.	321	N.A.	N.A.	100 <u>i/</u>
Synthetic Rubber	Thousand Metric Tons	N.A.	N.A.	0.9	N.A.	1.3	2
Reclaimed Rubber	Metric Tons	N.A.	N.A.	15 <u>m/</u>	N.A.	N.A.	N.A.
Motor Vehicle Tires	Thousands	N.A.	N.A.	23	73	39	20
<u>Stockpiles</u>							
Natural Rubber	Metric Tons	N.A.	N.A.	N.A.		N.A.	400 <u>i/</u>
Synthetic Rubber	Thousand Metric Tons	N.A.	N.A.	N.A.		N.A.	N.A.
Reclaimed Rubber	Metric Tons	N.A.	N.A.	N.A.		N.A.	N.A.
Motor Vehicle Tires	Thousands	N.A.	N.A.	30 <u>n/</u>		70	60

S-E-C-R-E-T

S-E-C-R-E-T

Table 70

Supply, Distribution, and Stocks of Rubber and Tires in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

a. Or any year within the period (preferably 1938) if the average is not available.

--

- g. 790/.
- h. 791/.
- i. 792/.
- j. 793/.
- k. Estimated.
- l. 794/.
- m. 795/.
- n. Planned amount.

50X1

S-E-C-R-E-T

Table 71

Supply and Distribution of Selected Products of the Engineering Industries in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan

	Unit	1935-38 Average <u>a</u> /*	1948	1950 <u>b</u> /	1951 <u>b</u> /	1952 <u>b</u> /	1955 Plan <u>c</u> /
<u>Supply</u>							
<u>Production</u>							
Antifriction Bearings	Thousands	N.A.	2,000 <u>d</u> /	3,915 <u>d</u> /	5,345 <u>d</u> /	6,830 <u>d</u> /	N.A.
Industrial Plant Locomotives	Each	N.A.	180 <u>e</u> /	350 <u>e</u> /	180 <u>e</u> /	218 <u>e</u> /	N.A.
Specialized Military Transport Vehicles	Each	N.A.	N.A.	N.A.	N.A.	3,661 <u>f</u> /	N.A.
Agricultural Machines	Thousand DME	N.A.	28,000 <u>g</u> /	66,100 <u>g</u> /	91,563.3 <u>g</u> /	80-90,000 <u>g</u> /	102,000
Steam Boilers							
Capacity over 60 Tons Per Hour	Each	N.A.	N.A.	N.A.	N.A.	N.A.	65
Capacity 10-60 Tons Per Hour	Each	N.A.	N.A.	N.A.	N.A.	N.A.	164
Capacity up to 10 Tons Per Hour	Each	N.A.	N.A.	N.A.	N.A.	N.A.	740
Precision Instruments and Optical Products	Thousand DME	395,000 <u>h</u> /	202,000 <u>i</u> /	399,000 <u>i</u> /	514,327 <u>i</u> /	622,000 <u>e</u> / <u>j</u> /	941,600
Steam Turbines	Thousand KW	N.A.	157 <u>k</u> /	171 <u>k</u> /	192 <u>k</u> /	340 <u>k</u> /	N.A.
Electric Wire and Cable	Thousand DME	N.A.	N.A.	N.A.	140,255 <u>k</u> /	N.A.	256,000
High Tension Switch Gear	Thousand DME	N.A.	N.A.	N.A.	13,212 <u>k</u> /	N.A.	110,000
Storage Batteries	Metric Tons	N.A.	4,900 <u>k</u> /	6,300 <u>k</u> /	6,800 <u>k</u> /	7,200 <u>k</u> /	N.A.
Cutters	Each	N.A.	N.A.	169	54	39	60
	Gross Registered Tons	N.A.	N.A.	10,140	3,240	2,340	3,600
Fishing Seiners	Each	N.A.	N.A.	53	79	16	40
	Gross Registered Tons	N.A.	N.A.	10,600	15,800	3,200	8,000
Freighters	Each	N.A.	0 <u>l</u> /	0	0	0	10
	Gross Registered Tons	N.A.	0 <u>l</u> /	0	0	0	29,470
Fishing Steamers	Each	N.A.	N.A.	0	0	6	25
	Gross Registered Tons	N.A.	N.A.	0	0	3,900	16,250
Fishing Luggers	Each	N.A.	N.A.	123	172	104	150
	Gross Registered Tons	N.A.	N.A.	49,200	68,800	41,600	60,000
Steam Locomotives	Each	N.A.	0	N.A.	N.A.	N.A.	435

\* Footnotes for Table 71 follow on p. 233.

S-E-C-R-E-T

Table 71

Supply and Distribution of Selected Products of the Engineering Industries in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Unit	1935-38 Average <sup>a/</sup>	1948	1950 <sup>b/</sup>	1951 <sup>b/</sup>	1952 <sup>b/</sup>	1955 Plan <sup>c/</sup>
<u>Supply (Continued)</u>							
<u>Production (Continued)</u>							
Rail Passenger Cars	Each	N.A.	10 <sup>e/</sup>	600 <sup>e/</sup>	670 <sup>e/</sup>	620 <sup>e/</sup>	1,000
Metallurgical and Mining Equipment	Metric Tons	N.A.	N.A.	83,000 <sup>m/</sup>	N.A.	N.A.	N.A.
	Million DME	N.A.	N.A.	171.8 <sup>m/</sup>	198.0 <sup>m/</sup>	N.A.	467.7
Electric Generators	Thousand KW	N.A.	220 <sup>k/</sup>	353 <sup>k/ m/</sup>	455 <sup>k/</sup>	455 <sup>k/</sup>	N.A.
Electric Wire and Communication Equipment	Thousand DME	N.A.	N.A.	N.A.	94,865 <sup>k/</sup>	N.A.	50,000
Power and Distribution Transformers	Thousand KVA	N.A.	892 <sup>k/</sup>	1,430 <sup>k/</sup>	1,796 <sup>k/</sup>	1,809 <sup>k/</sup>	N.A.
Electric Motors AC-DC	Thousand KW	N.A.	1,770 <sup>k/</sup>	2,857 <sup>k/</sup>	3,199 <sup>k/</sup>	3,589 <sup>k/</sup>	N.A.
Tractors, Wheel and Caterpillar Types	Each	N.A.	0 <sup>n/</sup>	2,700 <sup>n/</sup>	6,000 <sup>n/</sup>	7,200 <sup>n/</sup>	11,000 <sup>o/</sup>
Passenger Autos	Each	N.A.	N.A.	5,000 <sup>n/</sup>	10,300 <sup>n/</sup>	16,370 <sup>n/</sup>	23,500
Auto Trucks	Each	N.A.	N.A.	1,200 <sup>n/</sup>	4,840 <sup>n/</sup>	7,300 <sup>n/</sup>	24,000
Railroad Freight Cars	Each	N.A.	2,900 <sup>e/</sup>	5,000 <sup>e/</sup>	5,300 <sup>e/</sup>	6,000 <sup>e/</sup>	10,500
Mine Cars and Industrial Plant Cars	Each	N.A.	5,100 <sup>e/</sup>	9,550 <sup>e/</sup>	6,000 <sup>e/</sup>	2,400 <sup>e/</sup>	N.A.
<u>Imports</u>							
Antifriction Bearings	Thousands	N.A.	N.A.	400 <sup>d/</sup>	400 <sup>d/</sup>	N.A.	N.A.
Precision Instruments and Optical Products	Thousand DME	8,700 <sup>p/</sup>	N.A.	N.A.	N.A.	4,184 <sup>q/</sup>	500
<u>Distribution</u>							
<u>Domestic Consumption (i.e., Allocated to Domestic Use)</u>							
Cutters	Each	N.A.	N.A.	97	24	0	0
	Gross Registered Tons	N.A.	N.A.	5,820	1,440	0	0
Fishing Seiners	Each	N.A.	N.A.	0	31	0	0
	Gross Registered Tons	N.A.	N.A.	0	6,200	0	0
Fishing Steamers	Each	N.A.	N.A.	0	0	6	16
	Gross Registered Tons	N.A.	N.A.	0	0	3,900	10,400
Fishing Luggers	Each	N.A.	N.A.	20	18	0	0
	Gross Registered Tons	N.A.	N.A.	8,000	7,200	0	0



S-E-C-R-E-T

Table 71

Supply and Distribution of Selected Products of the Engineering Industries in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

	Unit	1935-38 Average <sup>a/</sup>	1948	1950 <sup>b/</sup>	1951 <sup>b/</sup>	1952 <sup>b/</sup>	1955 Plan <sup>c/</sup>
<u>Distribution (Continued)</u>							
<u>Exports</u>							
Agricultural Machines	Thousand DME	N.A.	N.A.	N.A.	9,500 <sup>g/ r/</sup>	N.A.	15,000
Precision Instruments and Optical Products	Thousand DME	183,800 <sup>p/</sup>	N.A.	N.A.	186,200 <sup>s/</sup>	172,000 <sup>g/</sup>	280,000
High Tension Switch Gear	Thousand DME	N.A.	N.A.	N.A.	1,086 <sup>k/</sup>	N.A.	73,500
Power and Distribution Transformers	Thousand KVA	N.A.	N.A.	N.A.	308 <sup>k/</sup>	N.A.	680
Electric Motors AC-DC	Each	N.A.	N.A.	N.A.	990 <sup>k/</sup>	N.A.	8,100
Auto Trucks	Each	N.A.	N.A.	(325 during the period 1949-52 <sup>t/</sup> )		N.A.	14,900
Railroad Freight Cars	Each	N.A.	N.A.	200 <sup>g/</sup>	322 <sup>e/</sup>	N.A.	2,500
<u>Reparations</u>							
Antifriction Bearings	Thousands	N.A.	N.A.	N.A.	1,000 <sup>h/</sup>	N.A.	N.A.
Agricultural Machines	Thousand DME		10-12,000 <sup>g/</sup>	N.A.	36,000 <sup>g/</sup>	N.A.	N.A.
Precision Instruments and Optical Products	Thousand DME		N.A.	N.A.	181,620 <sup>u/</sup>	N.A.	N.A.
Gutters	Each		N.A.	72	30	39	60
	Gross Registered Tons		N.A.	4,320	1,800	2,340	3,600
Fishing Seiners	Each		N.A.	53	48	16	40
	Gross Registered Tons		N.A.	10,600	9,600	3,200	8,000
Fishing Luggers	Each		N.A.	103	154	104	121
	Gross Registered Tons		N.A.	41,200	61,600	41,000	48,400
Industrial Plant Locomotives	} all rail equip- ment						
Steam Locomotives							
Rail Passenger Cars		Pieces	3,990	N.A.	N.A.	6,390 <sup>e/</sup>	470
Railroad Freight Cars		Thousand DME	97,250	N.A.	N.A.	365,675 <sup>g/</sup>	N.A.
Mine Cars and Industrial Plant Cars							
Power and Distribution Transformers	Thousand KVA		N.A.	N.A.	120 <sup>k/</sup>		N.A.
Electric Motors AC-DC	Each				17 <sup>h/</sup>		

S-E-C-R-E-T

S-E-C-R-E-T

Table 71

Supply and Distribution of Selected Products of the Engineering Industries in East Germany  
1935-38 Average, 1948, 1950-52, and 1955 Plan  
(Continued)

a. Or any year within the period (preferably 1938) if the average is not available.

- c. 797/.
- d. 798/.
- e. 799/.
- f. 800/.
- g. 801/.
- h. Estimated.
- i. 802/.
- j. Planned amount.
- k. 803/.
- l. 804/.
- m. 805/.
- n. Estimated.
- o. For wheel type only.
- p. Estimated in 1937 Reichsmarks. 806/.
- q. On the basis that one DME equals 1.22 rubles. 807/.
- r. On the basis that one DME equals one ruble.
- s. 808/.
- t. 809/.
- u. 810/.

50X1

50X1

S-E-C-R-E-T

Table 72

Production of Selected Commodities in East Germany, the USSR, and the Soviet Bloc a/\*  
1952

Commodity	1952 b/ Total Bloc (Thousand Metric Tons) %/	1952 b/ USSR (Thousand Metric Tons) %/	1952 b/ East Germany (Thousand Metric Tons) %/	East Germany as Percent of Total Bloc	East Germany as Percent of USSR
<u>Ferrous Metals</u>					
Iron Ore (50 Percent Fe)	62,917.0	55,000.0	464.0	0.7	0.8
Pig Iron	31,979.0	25,100.0	654.0	2.0	2.6
Raw Steel	43,917.5	34,300.0	1,800.0	4.1	5.2
Metallurgical Coke	45,287.0	33,000.0	264.0	0.6	0.8
Rolled Steel	32,317.0	25,100.0	1,362.0	4.2	5.4
Chromite (Metric Tons)	750,700.0	650,000.0	0	0	0
<u>Nonferrous Metals</u>					
Primary Copper	303.2	287.0	10.4	3.4	3.6
Secondary Copper	69.5	39.0	26.5	38.1	68.0
Refined Lead	197.7	117.0	19.0	9.6	16.2
Antimony	14.5	3.0	0	0	0
Bauxite	1,865.0	625.0	0	0	0
Primary Aluminum	251.2	220.0	9.2	3.7	4.2
Fluorspar	198.0	160.0	38.0	19.2	23.8
<u>Petroleum</u>					
Crude Petroleum	55,576.0	44,000.0	0	0	0
Liquid Fuels (from Synthetics and Shale Oils)	1,807.0	300.0	1,203.0	66.6	401.0
Natural and Synthetic Petroleum Products	53,400.0	41,580.0	1,400.0	2.6	3.4
Natural Gas (Million Cu M)	9,840.0	5,500.0	0	0	0

\* Footnotes for Table 72 follow on p. 236.

S-E-C-R-E-T

S-E-C-R-E-T

Table 72  
 Production of Selected Commodities in East Germany, the USSR, and the Soviet Bloc a  
 1952  
 (Continued)

Commodity	1952 b/ Total Bloc (Thousand Metric Tons) <u>c</u> /	1952 b/ USSR (Thousand Metric Tons) <u>c</u> /	1952 b/ East Germany (Thousand Metric Tons) <u>c</u> /	East Germany as Percent of Total Bloc	East Germany as Percent of USSR
<u>Chemicals</u>					
Ammonia (Synthesis)	972.0	590.0	280.0	28.8	47.5
Nitric Acid (100 Percent)	1,686.5	1,172.0	246.1	16.6	21.0
Sulfuric Acid	4,619.0	3,627.0	362.0	7.8	10.0
Toluol	67.4	56.0	3.9	5.8	7.0
Chlorine	529.0	261.0	198.0	37.4	75.9
Calcium Carbide	1,256.1	300.0	690.4	55.0	230.1
Caustic Soda	722.9	333.0	208.9	28.9	92.8
Refined Benzol	359.3	223.0	10.3	2.9	4.6
Refined Phenol	15.5	10.6	9.2	59.4	86.8
Synthetic Rubber	253.6	187.0	56.3	22.2	30.1
Rubber Tires (Million Units)	12.84	10.0	0.8	6.2	8.0
<u>Agricultural Products</u>					
Bread Grains (Million Metric Tons)	103.71	61.29	3.3	3.2	5.4
Other Grains (Million Metric Tons)	48.18	29.91	2.2	4.6	7.4
Potatoes	148,506.6	8,880.0	10,162.0	6.8	12.9
Sugar (Raw)	4,568.4	2,267.0	511.0	11.2	22.5
Meat	9,930.0	3,485.0	619.0	6.2	17.8
Animal Fats	2,409.0	851.0	195.0	8.1	22.9
Vegetable Oils	2,809.7	885.0	52.3	1.9	5.9
Wool (Grease Base)	235.31	150.9	3.7	1.6	2.5
Rayon	184.0	41.2	97.5	53.0	236.7
<u>Coal</u>					
Anthracite and Bituminous	372,695.0	220,500.0	2,850.0	0.8	1.3
Lignite	318,724.0	85,500.0	171,400.0	53.8	200.4

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Table 72

Production of Selected Commodities in East Germany, the USSR, and the Soviet Bloc a/  
1952  
(Continued)

Commodity	1952 b/ Total Bloc (Thousand Metric Tons) <u>c/</u>	1952 b/ USSR (Thousand Metric Tons) <u>c/</u>	1952 b/ East Germany (Thousand Metric Tons) <u>c/</u>	East Germany as Percent of Total Bloc	East Germany as Percent of USSR
<u>Heavy Industrial Products</u>					
Antifriction Bearings (Million Units)	131.3	115.0	6.8	5.2	5.9
Tractors (Thousand Units)	133.3	121.0	7.2	5.4	6.0
Trucks (Thousand Units)	429.3	410.0	7.3	1.7	1.8
Passenger Cars (Thousand Units)	76.9	35.0	16.4	21.3	46.9
Electric Locomotives (Units)	341.0	280.0	61.0	17.9	21.8
Freight Cars (Equivalent 2-Axle Units)	188,400.0	137,500.0	6,000.0	3.2	4.4
Railroad Passenger Cars (Units)	4,380.0	2,800.0	620.0	14.2	22.1
Machine Tools (Units)	138,590.0	80,340.0	22,000.0	15.9	27.4
<u>Construction Materials</u>					
Flat Glass (Million Sq M)	119.0	90.0	15.5	13.0	17.2
Gypsum	2,438.0	1,900.0	455.0	18.7	23.9
Unglazed Bricks (Million Units)	21,300.0	15,990.0	1,680.0	7.9	10.5
Cement (Hydraulic)	19,150.0	14,500.0	1,620.0	8.5	11.2
<u>Electric Power</u> (Million KWH)	179,634.0	117,000.0	23,400.0	13.0	20.0
<u>Electric Equipment d/</u>					
Turbines (Thousand KW)	5,085.0	3,600.0	340.0	6.7	9.4
Transformers (Thousand Kilovolt Amperes)	9,989.0	6,029.0	1,809.0	18.1	30.0
Wire and Cable (Metric Tons of Copper)	121,360.0	70,060.0	19,500.0	16.1	27.8

a. The Soviet Bloc includes the USSR, the European Satellites, and Communist China.

b. Estimated.

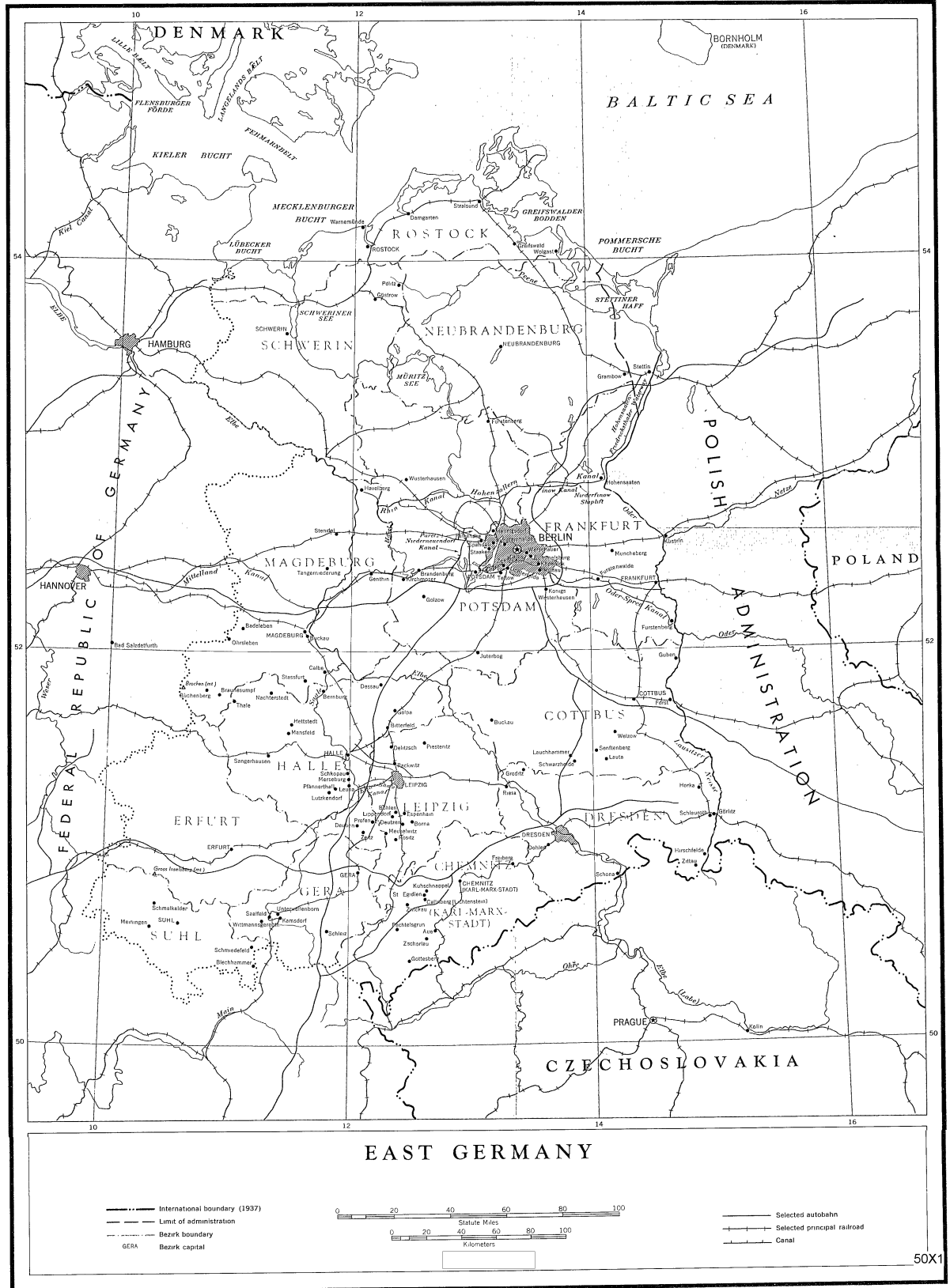
c. Unless otherwise indicated.

d. Range of error, plus or minus 20 percent.

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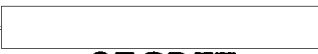


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